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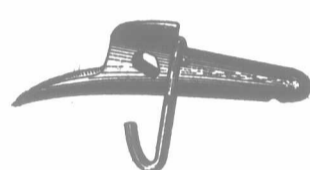
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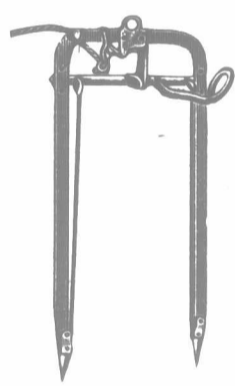
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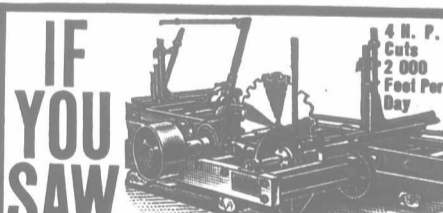
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THE SPICE OF LIFE.

Bill Nye late one night entered a fashionable New York hotel and asked for a room. He looked seedy, so the be-diamonded clerk told him there was only one room left, and that under the cornice, and that he'd have to pay in advance.

"Oh, all right," was the humorist's reply. He wrote his name in the register and pulled out a heavy roll of yellowback bills. When the clerk saw the roll and the name, a great light dawned on him.

"By the way, Mr. Nye," he said, with sugar in his voice, "come to think of it, we have an elegant room on the second floor you can have. I'd forgotten."

"Oh, all right," said Nye. "But do you know," he continued, "you remind me of Clay."

The clerk swelled and answered: "Why, no; I don't think anyone ever told me that I looked like Henry Clay."

"Oh, not Henry," responded Nye, "not Henry; just common ordinary clay, you know—mud."

An American newspaper man was reciting some of his early experiences the other day to a group of veranda listeners, and said: "When I was a youngster, writing all sorts of stuff for a small paper in the West, I made some weird blunders. I was to write an account of a wedding, and had heard that it had been a quiet affair. So in a hasty fashion I wrote that owing to a recent bereavement in the bridegroom's family, there were only relatives present. But I discovered too late that the bridegroom was a widower whose first wife had died only six months before his second matrimonial venture. Perhaps I didn't hear about it from the chief, for the bridegroom was his greatest political friend, and explanations were awkward."

THE BOON OF HEALTH.

Health is a boon we value most
When nearly giving up the ghost.
'Tis only when we feel we're sinking,
We're satisfied to do some thinking
Of how we should ourselves behave
In order best ourselves to save
From neurasthenia's dire perdition,
Abysses deep, where no contrition
Can rescue from the pangs and woes
Of gout and rheumatismal throes.
Turn, sinner, while 'tis called to-day,
Turn quickly from your sins away,
And follow Nature's laws so true;
There's joyous health in store for you.
Come, turn your steps toward Nature's ways,
And comfort find, and length of days.
—K., in Good Health.

WHAT A HORSE WOULD SAY IF HE COULD SPEAK.

Don't hitch me to an iron post or railing when the mercury is below freezing. Don't compel me to eat more salt than I want by mixing it in my oats. I know better than any other animal how much I need.

Don't think because I go free under the whip that I don't get tired.

Don't think that because I am a horse that iron-weeds and briars won't hurt my hay.

Don't whip me when I get frightened along the road, or I will expect it next time and maybe make some trouble.

Don't trot me up hill, for I have to carry you and the buggy and myself too.

Don't keep my stable very dark, for when I go out into the light my eyes are injured, especially if snow is on the ground.

Don't say "whoa" unless you mean it. Teach me to stop at that word.

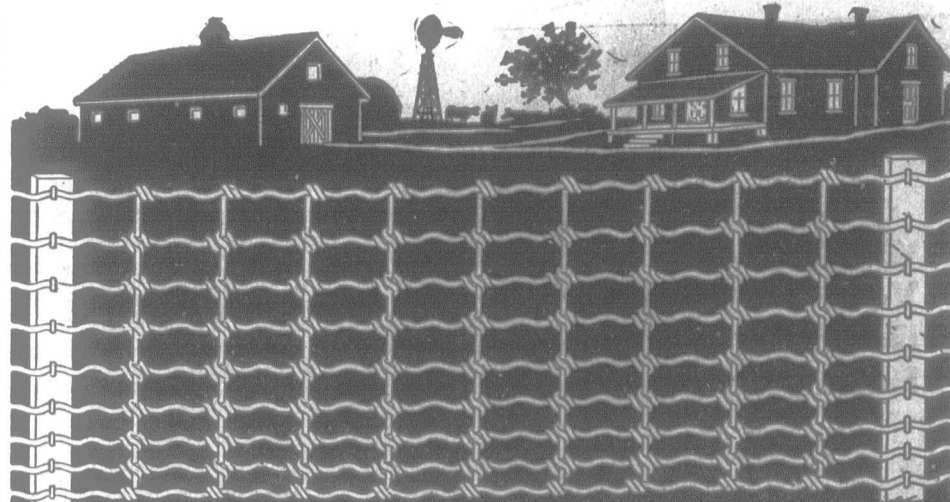
Don't make me drink ice-cold water nor put a frosty bit in my mouth. Warm the bit by holding it a half minute against my body.

Don't run me down a steep hill, for if anything should give away I might break your neck.

Don't put on my blind bridle so that it irritates my eye, or my forelock that it will be in one of my eyes.

Don't be so careless of my harness as to find a great sore on me before you attend to it.

Don't lend me to some blockhead that has less sense than I have.—[Successful Farming.



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Ideal is the recognized standard fence for Canadian Railways. Railroads build fences for permanence. Canadian farmers are buying more Ideal Fence to-day than any other make. They keep our two factories busy, turning out fence at the rate of 30 miles a day. You see this fence everywhere you go. You know there must be reasons. Just take a good look at it as shown above and read the argument for buying

IDEAL FENCE

Looks strong, doesn't it? It is strong. It's made to last. All made of No. 9 hard steel wires, both horizontals and uprights. Heaviest fence wires used. It adjusts itself in extremes of temperature. That's why Ideal fence always stands up erect. The lock which is used at every intersection of wires is shown in lower left hand corner. Neither climbing over nor horning, nor crowding, nor anything else can make the wires slip. It is not a fence that gets holes in so cattle and horses can poke their heads in and hogs root their way through. You can't tell about the galvanizing from looking at the picture but look at the fence itself for that. More heavily galvanized than any other. Easy to build, fits any surface, hilly or level.

Is the Argument sound? People who have investigated it answer yes. That's why so many are buying it. Take a little time to think of the *consequences* of good fencing before you buy. The Ideal has all of them. We know you'll want Ideal when you know about it. Write for our book about fencing, FREE.



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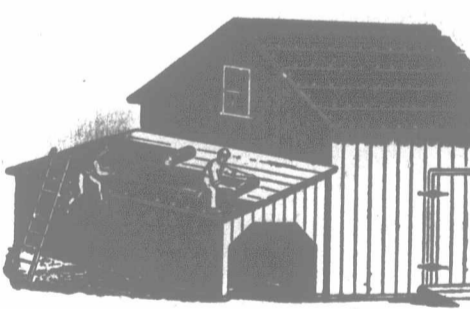
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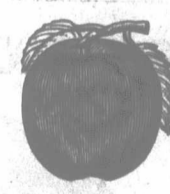
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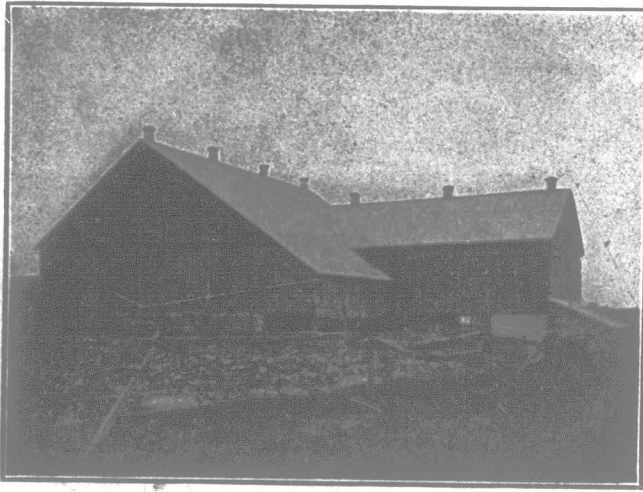
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"Make hay while the sun shines."

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They are covered, roof and sides, with "Acorn Quality" Corrugated Galvanized Sheets, and will last half a century without repairs.

They were built quickly, too—sheets nailed direct to strips fastened on rafters.

Don't use wooden shingles and siding on your new buildings. You'll be sorry you didn't get our "Acorn Quality" Fireproof, Lightningproof covering.

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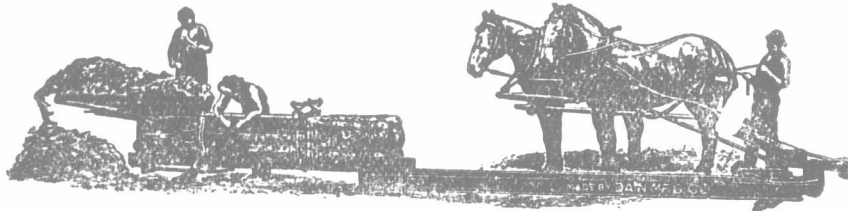
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We can make a bale weighing 200 lbs.

Easier draft on the horses. Can be operated all day with the same team.

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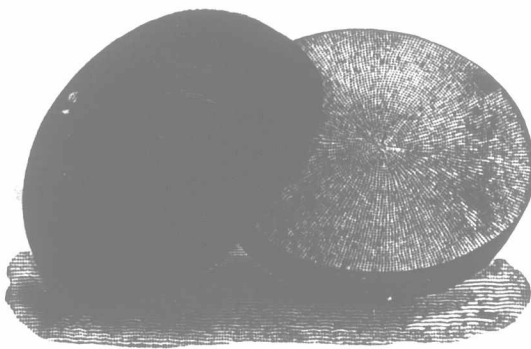
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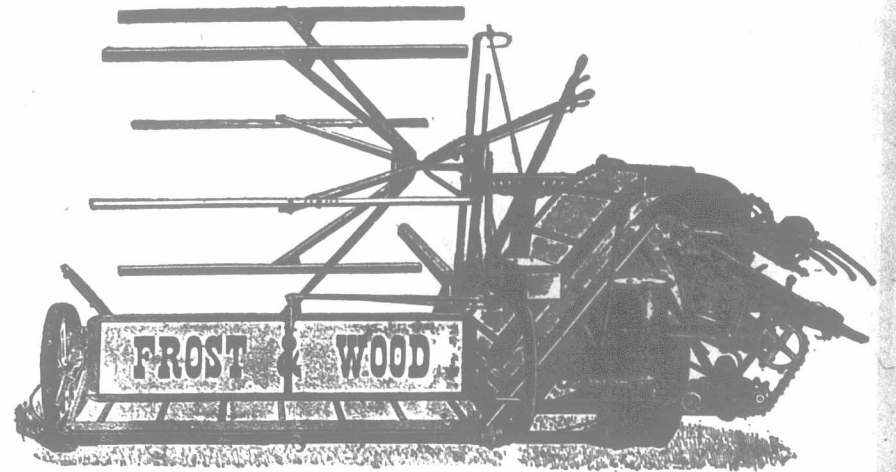
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Let us send you our Catalogue "F." It contains a lot of good information about Binders and other things in which you are interested. You will see there some reasons why you should buy a No. 3 Binder in preference to all others.

Don't put it off—drop us that card now.

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If you use a wagon of any sort, why not prolong its life and make driving in it more of a pleasure by using our Bolster Springs.

No jarring nor jolting, and easier on all parties concerned. By their use the fruitman, the market-gardener and the farmer can all market their produce without any bruising or waste; consequently, better results financially.

The proper outfit for the man who draws milk or cream. Mr. Dealer, increase your sales materially by handling our Bolster Springs. You market-gardeners, fruit-dealers and farmers, dispose of your goods in better condition by having a set of our Springs on your wagons.

Made in all capacities from 1,000 lbs. to 10,000 lbs. Give us width of the bolster of your wagon, and the distance between the stakes.

Write us direct, or give us the address of your nearest dealer. **The Dowsley Spring & Axle Co., Limited, Chatham, Ontario.**

Use Standard Fence, All No. 9, Hard, Steel Wire.

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The Farmer's Advocate

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Established 1866.

VOL. XLII.

LONDON, ONTARIO, JANUARY 24, 1907.

No. 748

EDITORIAL.

The Breed Society Meetings.

That there is need for an awakening on the part of the executive and directorate of most of the breed societies in Canada, is evidenced by the fact that the dates for the annual meetings, which are usually held early in February, have not been publicly announced before the middle of January, and that inquiries as to when they are to be held this year have reached this office from different and distant parts of the Dominion. The directors do not appear to be seized of the fact that this is a country of magnificent distances, that even transcontinental and imperial limited trains do not always, in a Canadian winter, make schedule time in the delivery of His Majesty's mails, and that members located in the Provinces distant from the center of gravity of the societies, as at present arranged, are entitled to at least as early notice as those in the few counties immediately contiguous to the place of meeting, and where the officers and directors have their homes. Early and sufficient notice is due members in outlying districts, whether they are disposed to avail themselves of the privilege of attending or not. And as not a few of the members in the Western Provinces take advantage of the leisure of the winter months to make business or social visits to the East, they should have timely intimation of the dates of the meetings. In order to a better understanding in this regard, it would appear to be practicable to have a permanently-fixed date, if not of the day, at least of the week in which these meetings are to be held, so that parties living in the outlying Provinces might lay their plans to make their visits from the East or the West at that season, exact information of the day and place of meeting to be mailed the members in ample time, as well as given in the public press. A continued effort on the part of the officials of all these associations might also result in special reduced transportation rates being secured from the railways for those attending the meetings. This is the more probable owing to the meetings being held in the month when the volume of travelling is at a minimum. Among questions which arise in this connection is whether more time could not be profitably utilized at these annual meetings were the programme extended, and not, as at present, compressed into a few hours, precluding the possibility of mature consideration or intelligent discussion of matters of interest to the membership.

The question of representation of the various Provinces on the directorate, and the method of their election, would appear to deserve consideration, if the sympathy and hearty co-operation of the members in all sections be desired. In the past the directors for Provinces have been elected by the members present at the annual meeting, which, in the case of nearly all the societies, is held in Ontario, and attended almost entirely by Ontario breeders. The complaint has been made that this course does not afford a satisfactory representation, and it has been suggested that, owing to the expense incident to the attendance of members from distant Provinces, the vote for Provincial directors might be secured by mail, the secretary of live-stock associations for those Provinces being furnished with a list of the paid-up members, to be mailed to them, with instructions to mark the names of those they favor for the position of directors for their Province, and

return to the secretary before a named date. Whether this plan is practicable, or whether a better can be devised, is an open question, but one thing that we presume will appeal to all is that the good British principle of "no taxation without representation" should prevail, and an honest effort should be made to give satisfactory representation in the councils of each association, even if it be found necessary or expedient to provide for the payment of the expenses, or at least a portion of the expenses of directors living at a long distance from the place of meeting when attending the annual meeting, where he may present the claims and wishes or needs of the breeders in the Province he represents.

Some of the cattle breed societies have appointed as their secretary men familiar with the breed, who are expected to devote time and energy to the work of pushing the interests of the breed and advertising its claims to public favor, reasonable remuneration being allowed him for his work in this regard. This is wise, and the example may profitably be followed by other societies whose financial resources are such as to justify the action. In this age of strong competition, the breed society which acts promptly and vigorously in an enterprising spirit in making known the practical merits of the breed, will make most headway in extending its sphere of usefulness, enlarging the demand for the particular class of stock, and enhancing prices for the same.

The dairy-breed societies which have adopted the system of official tests of milk and butter production, and an advanced Record of Performance, have done wisely, and this course, if persistently followed, is bound to accomplish great good in improving the productive capabilities of our cows, thus adding enormously to the profits of our dairymen. And if the dual-purpose cow is to make good, it is up to those who claim to have faith in her future to show their faith by their works, by seeking to induce the breed societies interested to encourage the production and development of that class by establishing Records of Merit, and offering a liberal list of prizes for superior performance in milk-production, the neglect of which must ultimately count seriously against any breed of cattle, as indeed it does against any class of live stock.

In conclusion, let us remind the members of the breed societies that, if the business of these organizations is not being conducted as they think it should, if selfish interests are being promoted by cliques or combinations, or if officials are neglectful, or unnecessary delays occur in the clerical department, improvement will not be effected by those dissatisfied absenting themselves from the annual meetings and grumbling at home, or by sitting silent when present, but rather by a full attendance, by preconcerted action and by vigorous protest and properly-presented resolutions, calculated to provoke discussion and compel men to place themselves on record by their votes. This thing of allowing a coterie of old-stagers to transact all the business, including nominating each other to succeed themselves in office from year to year, ought not to be allowed to continue indefinitely. A little new blood of the right kind, progressive and, if need be, aggressive, or at least defensive of the right, may add much to the interest of the meetings and to the usefulness of the societies. Let there, therefore, be a large attendance of members at the coming meetings.

If your question has not been answered within reasonable time in the paper, probably you omitted to sign your name.

Record of Performance for Shorthorns.

At the approaching meeting of the Dominion Shorthorn Breeders' Association there is one subject overshadowing all others in importance that should be earnestly discussed, and energetic action taken accordingly. That is, provision for the establishment of a Record of Performance for milking Shorthorns. Such a record would not take the place of ordinary herdbook registration, nor would it result in the development of a distinct breed. It would merely be a means of indicating those individuals or strains of the breed which have proven under official yearly test their superior capabilities in dairy production. It would be the means of developing the milking quality of certain strains, without alienating these from the purely beef stock. Every animal entered in the Record of Performance would be of registered pure breeding, hence there should always remain sufficient homogeneity of origin between the beef and the milking strains that a bull of the one might at any time be chosen to strengthen the beef type or the milking quality, as the case might be, in the other. We need not pause to restate the arguments for more attention to milk on the part of Shorthorn breeders. It has been neglected too long, and we are already suffering the consequences of having pursued the easy way, which has come all too near leading us to the milkless cow. It is time to retrace our steps some little distance, and endeavor to bring the grand old breed, generally, nearer to the dual-purpose standard. Action to this end has been taken in Britain and the United States, where special records are being kept for milking Shorthorns. Surely Canada will not lag behind!

There is still room for the purely beef type of Shorthorn out on the ranch, and in other places where land is cheaper than labor. Probably there always will be a limited demand for such stock, but it will become more limited in Canada as time goes on. Our main beef supply must be produced under a more economical system than all-beef farming. The general farmer has no use for a cow that will not raise her calf, and unless he can get true dual-purpose sires, he will look with increasing favor on the dairy breeds.

If Canadian Shorthorn breeders are to increase or hold their field, they will be obliged to pay more attention to milk, and it is to the interest of the breeder who goes in purely for beef that some, at least, of his brother breeders should cater to the dual-purpose standard, thus lessening the competition in his particular sphere. Every Shorthorn breeder is interested in this movement, whether he proposes to go in for milk or not.

Granted that we need more attention to milk, the conclusion follows that a Record of Performance is the key to the situation. Dairy breeders cannot judge milking quality reliably by appearance. They have to fall back on records. Much less can we gauge by appearance the dairy quality of a dual-purpose breed, for here the selection is complicated by a second factor. We have not even the insufficient guides of the dairymen. If we seek to breed milking Shorthorns according to a dual-purpose type, without relying on records, we shall at best obtain an unsatisfactory compromise. In all probability we would develop a strain of weeds, inferior for beef, and not much better for milk.

What must be done—and experience indicates that by persistent effort it can be done—is to develop the milking propensity in cows approaching the approved beef type. It must be done by careful mating and selection, and by studious development of heifers for several generations. To work intelligently along these lines, we require a means of knowing the actual performance of the individuals in the strains we propose to use. The Record of Performance is the guide to be followed. Let us have it and get to work.

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THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED WEEKLY BY
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JOHN WELD, MANAGER.

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The Black Cloud at Cobalt.

At this season of the year the mind usually turns to stock-taking. Once or twice a year most men like to clear the rubbish away from about their feet in order to see where they stand. What a man does for himself as an individual, he often does for the state at large, hence the reason for the remarks that follow.

Mr. Archibald Blue, the Chief Census Officer of Canada, in our Christmas issue gave figures to show that the nation has added to its wealth in concrete forms, and in this respect he differs from statisticians in England and the United States. Figures brought down in those countries try to show that the increased value of products, due to their scarcity, may be taken as an addition to the total wealth, whereas it simply means that some commodities have been marked up in value because the supply is limited; as sources of wealth, they have really decreased.

At the very beginning of our private and national stock-taking, we are confronted by two factors affecting the increase of wealth, namely, the increase of things of value, and the increased value of things we had before. The former is a safe and sound increase of wealth. The latter represents that part of wealth that may decrease with a change in conditions. From both these sources most men will be able to discover an appreciable gain in wealth for the past year or the past five years, but some men will be timorous of the stability of the increase of wealth which has come through the marking-up process.

Viewing our national situation in the light of past experience, the public will do well to keep its weather eye open for a possible period of commercial depression. With the legitimate increase in wealth from the soil and other natural sources, has come one of those sinister circumstances that has often preceded a commercial crisis. We refer to the boom in mining stocks. Cobalt has added much to the importance of Canada as a mining

country, but the country has yet to pay for the reputation the discoveries in Nipissing has given us. There is great mineral wealth there, doubtless. Nothing advertises a country more rapidly than the discovery of rich mines, but it is the few, not the many, that profit by them. Our fear is that the present exploitation of this district will presage depression later on. Mining companies are being floated at an alarming rate, and the people are buying these stocks, as the continuous display of mining-stock advertisements in the daily newspapers prove. Almost daily Toronto papers are filled with dazzling propositions, calculated to deceive the very elect.

During the past year the par value of the mining stocks authorized in Canada has been some \$300,000,000. These stocks are being purchased with money that would otherwise be used to purchase the necessities of life and to insure an old-age competence, and when used for the purchase of mining stocks is naturally withdrawn from the scene of legitimate trade. Following these investments there is a natural falling off in the purchase of foodstuffs and manufactured goods, which eventually leads to a glut and the cry of over-production.

Of course, the blind optimist will say this all assumes that mining stocks are never profitable, but the assumption, according to all past experience, is alarmingly well founded. The opinions of three expert mining men who have been eminently successful in the handling of stocks and actual mines, as here given, are sufficient alone to deter a man from putting his savings into mining stocks, and to dictate a policy of conservation to those whose wealth is accumulating either actually or by enhancing values:

"The par value of the mining stocks authorized in the United States and Canada during the year has been estimated as high as \$900,000,000. Inasmuch as the vast majority of these propositions are mere prospects, at the best exploration schemes, the character of this speculation is disclosed. It would be remarkable indeed if five per cent. of them should turn out paying investments. There are just two classes of persons who are warranted in entering into mining enterprises: (1) The practical miner, who makes mining his life-business; and (2) the rich capitalist, who can afford to take extraordinary risks. For everybody else mining is a perilous gamble. Even where there are undoubtedly surface indications of ore values, it should be borne in mind that one in three hundred is a conservative estimate of the proportion of prospects that eventually fulfil their promise. The two hundred and ninety-nine failures are forgotten in the one success, and that one is made the bait with which the public is tempted to three hundred more ventures."

The time is one for caution, and it argues ill for the final outcome that banks and other institutions which should exercise a modifying effect, are not as conservative in extending credit when such a boom is on as they are when the depression comes. It is also an ill omen that the American presidential election follows so closely upon this mining boom. Doubtless there will come a time when the people will clamor wildly to the Government to protect them from the ravages of the broker whose chief stock-in-trade is "a hole in the ground, with a liar at the top," and it would seem that now is the time that "prospects" which are offered the public should have more assurance of being valuable than simply the "say so" of the promoter. In this age, which sanely demands Governmental regulation of rates of all kinds, why should there not be some Governmental regulation of mining-stock enterprises?

Cheaper Now at \$1.50 than Before at \$1.00

Premium received and am well pleased with it. Just here I want to say how well pleased we are with "The Farmer's Advocate." When you changed it to a weekly magazine, and the price from \$1.00 to \$1.50 per year, we were tempted to stop it. But now we feel sure it is far cheaper than when we only paid \$1.00. Every year it steadily improves in every department. Such a magazine going broadcast over our country cannot fail to have a great influence for good, not only in the lines of agriculture, but also it must have a large place in the good moral tone of the homes into which it enters. May it continue to improve and prosper.
Hants Co., N. S. G. F. GORDON.

Our Maritime Letter.

The bane of partizanship is what every man striving these days for the proper advancement of any public interest has to complain of, unless he be particularly fortunate in striking a rich vein of luck and following it up successfully. The affairs of the country under our system are necessarily bound up, to a very great extent, in the functional and the administrative. Parties, no matter how good—and, like the boys of our days, they never seem to us so virtuous as when we were up-coming—are quite susceptible to all the currents which flow on the surface of public life, through which they have to navigate—good currents, bad currents and indifferent currents. The leaders of those parties are good men, amiable men and clever men, without doubt; but, like chips in the current, thrown, they follow, for the most part, the course of the strongest force. One finds little difficulty in convincing them of the excellence of some important project. "It is good," they admit freely in the privacy of their cabinet, "but is it expedient?"—and this rider often destroys the brightest hopes, almost always delays urgent measures.

The heaviest of our taxes—and they are always obnoxious, in the very nature of things—is that which is paid to expediency and the placating of the mercenaries, whose hands are out for toll from every passing measure, whether involving the expenditure of money or not. The old Chancery Office Dickens rendered immortal and ended at a stroke never killed out hope or paralyzed efforts so conclusively as unwilling governments of the day. In the larger communities you feel this tremendously, and suffer from it in all your progressiveness; in the smaller, it simply overwhelms us. And still the disinterested patriot must not lose courage.

It was said of the present administration at Ottawa that it gave us government by commission. It has, indeed, given us several good commissions; the Railway Commission need only be mentioned to convince all of this, and even this Commission has but half the power it should, being a judicial rather than an executive instrument. It would be well that every other department involving the expenditure of public money could be administered by commission. The Agricultural Commission, the Works Commission, the Post-office, Fisheries and Lands Commissions, are possibilities of the more discerning future. Then, the statesman can occupy himself with matters of high public policy, instead of worrying over robber politicians, whose whole aim is to exploit the country's treasury. Money patronage, at least, is always degrading in public affairs, debauching him who gives and him who receives. How the few really great souls of the nation must have suffered in their sensibilities because of it!

When, in the greater divisions of the Dominion, urgency in public affairs arises, the very force of representation compels the Executive to act. Real grievances are thus easily redressed. Government cannot, in the circumstances, resist the pressure. Big countries, like big men, compel attention. In the smaller portions of the Confederation, however, the paternal side of Government can only be invoked to render justice or bestow largess; and alas, every father's heart is not exactly attuned, not nicely enough informed with the father's love so as to respond to all the exigencies of the case. Thus the rich plums go not to those who need them most, not to those who have the strongest claim to them, but to those who are most likely, in the day of stress and strain political, to roll up the majority of supporters. What we get in those petty states is the merely regulatory, frittered through the innumerable official bureaus, and often when it reaches the spot affected, so reduced in amount or devalued by elapse of time as to be practically worthless. On the purely fundamental conditions of our compact we are trifled with and disheartened, even.

Maritimately, we are tremendously weakened by our geographical and political divisions. We can scarcely make our voice heard in anything which exacts the test of strength. Every good thing and every perfect thing is for the West or the manufacturing centers of Old Canada. This is not right. Our leaders are not doing their duty in permitting the decimation of this country. "They can't do otherwise." Then they have not the genius for government, for this emphatically demands the overcoming of every obstacle to a country's prosperity. Do they try sufficiently? And have they seriously considered the necessities which should permit of their reaching the golden goal?

There is no question but that these Provinces must work together. If they are not to be united Legislatively, then they must have some common working plan Federally. Their very existence de-

mands it. Granted the physical bond, which we will ever strive after in the tunnel, we see no reason why a Legislative union should not make for the betterment of all concerned. The petty sentimentality of an autonomous Province for a patch of territory not as big as many counties elsewhere, and for the merest handful of people, is vain; and vain is the boast of our national leaders, of so many Provinces in Canada's crown. We are, we hope, a too practical people not to recognize the absurdity of such things; we have too much perception not to see clearly the great advantage which should come to us through a unification of the political machinery of these Provinces. We are now frittering away, with most disheartening results, our best energies; then we would witness beneficent results every day. We are as proud of our Island Province as any one; we are, we hope, not wanting in the sacred virtue of patriotism; but our very love for our dear little Isle, our very sense of patriotism, cry out for a change, a joining of forces, which may assuredly give us a fighting chance with the other great divisions of Canada, and make us something in the national quotation. To make ourselves felt in the councils of the country, we must be a sufficient force to be reckoned with; we are not now. To get our own out of the Federation, and the sortage from fortuity, which is the gist from the political mill, we must unite, and unite quickly and effectively. Let no secondary matters obscure the consideration of this vital question or distract the public attention from it for an instant. A. E. BURKE.

HORSES.

Scratches or Cracked Heels.

Scratches or cracked heels in horses is an inflammation of the skin. It is characterized by redness (noticed only in horses with white heels), heat, swelling and irritation. It is technically called erythema, and is liable to affect any portion of the limbs. When that portion between the hoof and the fetlock joint is involved it is called "scratches" or cracked heels; when the limb is affected to a greater or less height, probably to the body, it is called "mud fever"; when the anterior surface of the hock is the seat it is called "sallenders," and when the posterior surface of the knee is involved it is called "mallenders."

CAUSES.—Horses with fatty or beefy legs are predisposed to the disease, but it is liable to occur in horses of any and all degrees of quality of bone. It may be due to systemic or constitutional disturbance, induced by overfeeding and want of exercise, or by the reverse, i.e., a depleted state of the system, caused by debilitating diseases or want of proper nourishment. In either of these conditions slight exciting causes will be followed by the trouble. It is caused by heat and cold operating alternately on the skin; standing in wet, dirty and ill-ventilated stables; friction, pressure, dirt and wet. Probably one of the most frequent causes is the too common habit of washing horses' legs, especially with warm water. During certain seasons of the year, when the weather may be warm during a portion of the day and then turn colder, it is not uncommon for horses to reach the stables in the evening with mud or snow and water frozen to the hair on their legs. The teamster, thinking the horse would be uncomfortable if allowed to stand in this condition, takes a pail of warm water and washes the legs, and then leaves them standing in the stalls. During the washing process the hair and skin have been washed, and the air, always colder than the water that has been used, now striking the parts causes a more or less violent reaction, which interferes with the circulation. When this has occurred repeatedly we should not be surprised if cracked heels or mud fever appears. The practice of washing frozen matter off with warm water, or mud off with either warm or cold water, cannot be too highly condemned, unless the teamster attends to but one leg at a time, and does it thoroughly; that is, after washing a leg he should rub it with cloths or wisps of straw or sawdust until it is thoroughly dry, then apply a bandage and then attend to another leg, etc. This, of course, takes a long time, especially if the horses have long hair, and few teamsters have either the time or inclination for such a job in the evening after doing a day's work. The above practice will prevent a reaction and make the horse comfortable. At the same time, the horse suffers little or no discomfort by standing with mud or snow, either frozen or not, as the case may be. The accumulation is on the hair ends, and it is seldom the skin is wet. Unless the teamster is satisfied to rub until dry and bandage he certainly should not wash. Allow the horse to stand until the ice melts by the heat of the legs and of the stable, when it will drop off, or until the mud dries by the same influences, when it should be brushed off. Supposing the brushing does not take place until the following morning, it is much better for the horse than washing as it is usually done; hence on general principles we say, "Do not wash your horses' legs, especially in cold weather."

Another fertile cause of the disease is clipping horses' legs in cold weather. When the legs are to be clipped it should be done in the fall, at all events not later than the middle of November. Then they may be again clipped during the winter if necessary, as they

have gradually become accustomed to the cold, but it will be noticed that when the clipping is not done until after the middle of December, as is often the case, especially when a horse changes hands, and the new owner, in order to improve the apparent quality of bone, with a view, probably of selling again, clips his legs, that in the course of a couple of weeks he has cracked heels and often mud fever in all legs. In cases of this kind the reaction is too great, the cold has such an effect upon the clipped legs, that have previously been protected by hair, that the circulation is partially arrested, then when he is in the warm stable it regains its normal condition, only to be again checked when the horse is taken out, etc., etc., and this usually results as stated. The way to prevent skin diseases of this kind in the legs is to keep the horse in a dry, comfortable place, feed in proportion to the amount of work, and as far as possible avoid the direct operation of heat and cold, wet and dry, directly upon the skin.

SYMPTOMS.—The first symptom is a redness of the skin (noticeable only in horses with white heels), swelling, heat and tenderness. The swelling is probably the most noticeable, and exercise usually dissipates this. After a while cracks extending across the limb will be noticed, the horse will go lame for a few steps, and if the weather is cold it is probable the cracks will bleed a little. As the disease advances the symptoms become worse; the affected leg or legs swell more when he stands; the cracks exude pus, often of a fetid odor, and the lameness increases. In chronic cases the swelling will not disappear on exercise, the horse goes lame mostly all the time, the parts assume a dirty, greasy appearance, and the odor is offensive.

TREATMENT.—If rational treatment be adopted in the early stages, it is usually successful in a reasonable

with a feather once daily for two or three days before the above treatment is adopted. When the parts smell foul they should be poulticed with linseed meal and a little powdered charcoal for about two days and nights; a fresh poultice applied warm about every eight hours, before the general treatment is adopted. In cases that are largely constitutional, in addition to the constitutional treatment mentioned, it is well to give alteratives, as 1½ ozs. Fowler's solution of arsenic twice daily for a week. "WHIP."

Digestive Organs of the Horse.

In describing the digestive organs, it is necessary to begin with the parts by which the food is prepared for the stomach, and to point to the condition in which food ought to be previous to it being taken into the mouth, writes Dr. J. Rein Keelor, of Harleysville, Pa. In doing this, we must consider the animal in a state of nature, and we shall find that the food which nature has prepared is full of juices. The horse is a herbivorous animal; therefore, when stabled, he is generally kept on dry grain, hay and other dry provender, and is subject to many diseases, unless guarded by prudent management. Digestion is that process by which the food is reduced to a state in which it can be absorbed from the intestinal canal and taken up by the blood vessels. The general character of digestion is the same in all cases. Hay is often too dry for mastication and for digestion. Hay that has been suffered to stand until seed becomes ripe, is very deficient in nutriment, and difficult of digestion. It only serves to oppress the stomach. Hay that becomes old—that is, kept for more than one year—

becomes dry and deficient in nutriment, hard to masticate, especially when the molar teeth become imperfect, which is often the case one meets with.

The molar teeth (grinders) wear at times, very irregular, and consequently sharp edges are formed on the outside of the upper molar, and sharp edges on the inside of the lower molars. The consequence is the inside of the cheeks and tongue become wounded or sore, which prevents the horse from properly masticating his food, and induces him to swallow his food imperfectly chewed, which becomes difficult of digestion, and, therefore, depriving the nutritive matter from being extracted, which causes indigestion and



Pomona (16328).

Clydesdale mare; foaled 1899. Bred by Her late Majesty Queen Victoria. Winner of numerous prizes. Sire Baron's Pride.

time. The first thing to do is to remove the cause if possible. Let the patient have a few days' rest. Give a purgative of 6 to 10 drams aloes and 2 drams ginger, according to size. Feed bran only until purgation ceases, and even then feed very little grain until he is put to work again. Follow up with 3 drams nitrate of potash twice daily for a week or ten days. Local treatment consists in keeping the parts as clean as possible without washing. I might here state that many cases of scratches are aggravated by washing with soap and water. This is another case in which we say "Do not wash." The local applications depend to considerable extent upon the weather, and this applies especially when the horse is worked or driven when suffering from the disease. Lotions, oils or ointments are usually used. In warm, dusty weather lotions are best, as they have an astringent antiseptic action, and do not gather dust or dirt as oils or ointments do. In cold weather lotions often have such an astringent effect that they dry up and harden the skin, and then the cold weather still further contracts and a case that has apparently done well will crack open again, while oils or ointments have a more softening, and, at the same time, antiseptic effect, and tend to prevent cracking. Whichever is used (sometimes they are used alternately, or the lotion applied when the patient is in the stable and the ointment just before he is taken out in cold weather) should be freely used three or four times daily. A favorite lotion is made of 1 oz. each, sulphate of zinc and acetate of lead, ½ oz. carbolic acid and a pint of water. Probably the best ointment is the oxide of zinc ointment, to which is added 20 drops carbolic acid to the ounce.

When a case has become chronic, and what is generally called proud flesh is present, it must be removed by applying a caustic, as butter of antimony, applied

numerous other disorders. I have seen many cases in which horses have died from being fed on improper food which was improperly masticated on account of irregular teeth, and where the stomach and bowels were full of imperfectly masticated food. The stomach had ruptured and discharged the contents into the abdomen from the excessive distention by the gas generated. Hence, it is very essential to have one's horses' molars in perfect condition. An animal with irregular teeth swallows his food without mastication, and the stomach becomes filled—overloaded—before it has time to make preparations for acting on its contents. The food ferments, and painful colic and gastritis ensues.

The stomach of a horse is remarkably small in proportion to his size—not half as large as that of the human being, when you compare the size. The size of the horse and the services required from him demand much nutriment. When we consider, for a moment, in what manner he is sometimes treated, there can be no difficulty in believing that the stomach must of necessity be brought into an unhealthy condition. Of course, grain becomes a necessary diet for him, and, if properly dispensed, is the food that can be given.

Hay, when it has that fragrant smell with a greenish color, and given in moderation, is a very suitable food for the horse in quantity proportionate to his work. A horse whose stomach is stuffed to the utmost, like every other animal, feels it a great inconvenience. If taken out immediately after a full meal and given severe exertion, it makes him breathe hard and labor. Why? Because the left side of the stomach comes in contact with the diaphragm, the great muscle of respiration. It is pressed upon by

every motion of the diaphragm. The situation of the stomach after it is stuffed to its utmost will at once explain the reason why a horse is so much distressed, and at times injured, if worked very hard immediately after a full meal.

When the stomach is full of food, and the horse is taken out and given severe exertion, the stomach must be displaced and driven back by every contraction of the diaphragm or act of respiration; and in proportion to the fullness of the stomach will be the weight to be overcome and the labor of the diaphragm and the exhaustion of the animal. If the stomach is too much distended, it may be too weighty to be forced sufficiently far back to make room for the diaphragm to act in severe exertion. So, you will readily see that it is dangerous to give severe exertion to the horse that has his stomach distended with food and water before he starts on his journey. Exhaustion of the stomach, loss of nervous power, may arise from overfeeding, even upon good food, but more frequently from bad food that is hard to digest. Exhaustion may also arise from excessive labor, and this sometimes happens in a race-horse, where the strain is severe. Hence, the horse becomes weak, and is unable to do his best. This exhaustion of the nervous power of the stomach may be caused also by drinking cold pump water, especially if given when the body is in a heated condition, or when fatigued by severe exercise, or by standing in the cold draught when in that state. Now, as to the process of digestion, which is carried on by the mouth, tongue, œsophagus, salivary glands, stomach, intestinal tract, and different fluids of the liver and pancreas. The food is taken into the mouth and masticated with the molars; here it is moistened with saliva. The saliva is necessary, not only to prepare it for mastication and swallowing, but serves an important point in the stomach, being necessary to digestion. The masticated food is carried by the motion of the tongue into the pharynx, then down the œsophagus into the stomach by the muscular contraction of those parts, its office being that of digesting the food, and so preparing it as to render it fit for forming blood. In the stomach the food mingles with the secretions, the gastric juice, which not only dissolves the food received in the stomach, but it unites and combines with it, altering its nature and changing its composition. The food, having undergone the process in the stomach, is then conveyed to the first intestine, or duodenum, in which another and very important change takes place. It is here that the secretions of the liver and pancreas are brought and mingled with the mass from the stomach, and by their action change what is called chyme into chyle, which, as it passes along the intestinal tract, undergoes still other changes. The action of the bile is nature's own cathartic; the secretion of the pancreas has the power of digesting the fatty matter. After the material passes through the intestines it becomes absorbed by the blood vessels, and partly by the lacteals, and is by them conveyed to the thoracic duct, and then into the general circulation of the blood for the repair of the body and its support.

The stomach of a horse holds about three gallons, the small intestines about six gallons, the cœcum four gallons, and the colon thirteen gallons.

LIVE STOCK.

What Shall I Do on My Farm?

By Prof. J. H. Grisdale, B.S.A.

For the normal Anglo-Saxon there is an attractiveness and a charm about beef production scarce equalled by any other calling or craft. Hardly a son of the race whose eye does not kindle when it takes in the image of the ruddy, rotund, block-ripe bullock? Which of us has not, time and again, admired the low, massive form of some show-yard champion and wished that it was his to say, "I fed him" or "I bred him"? No other product of the breeder's and feeder's skill can ever hope to rival in popular favor his bovine excellency—the right fat steer. We all like to, or would like to, try our hands at the feeding; and, if successful in the ring, what a thrill of pride in the winner's heart, even though he be the noblest of the race, as witness the King with his Royal Duke steer at the recent Smithfield Show.

Beef-production is one of the many lines of farming open to the Canadian farmer, almost any one of which, industriously and intelligently followed for a number of years, is very sure to lead to competency, if not to fortune. Of the other lines most likely to be considered, grain-growing is the one that in early days proved most attractive, since returns were speedy and the capital needed for a start very much less than where any class of live stock was extensively bred.

Speaking in a general way, grain-growing may be said to attract such as are ambitious of making a living as easily as possible, with no particular aspirations in the way of homemaking or farm improvement. No man in the least ambitious or at all thoughtful could long be satisfied

to grow grain, or, worse still, grain and hay for sale, as a means of making a living in Eastern Canada to-day. The case will be similar in the West in the near future. Such farming is not only the least remunerative, generally speaking, but the least congenial, in the long run, and very certainly the least calculated to upbuild the nation and increase the national wealth. Grain-growers gradually see the errors of their way, as a rule, however, and begin to keep a few steers to consume some of the straw and other roughness, as well as a portion of the grain from the farm. The influence of the fertilizer thus manufactured is usually so markedly beneficial as to lead to expansion along this or some similar line, and the grain-grower is converted from a soil robber into a decent citizen.

In many parts of Canada, however, grain-growing has given place to dairy farming, rather than to beef production, not because of the superior attractions of the former, but on account of its greater possibilities as a money-making business, and on account of the practically unlimited market for the product. In addition, dairying lends itself to the enterprise of the small farmer much more satisfactorily than does beef-raising. The man on a hundred-acre farm devoted to beef-production alone, can seldom afford to keep a helper the year round, while dairymen not infrequently require two helpers on a similar area. The man not afraid of work soon learns, too, that, whereas beef may pay him good market prices for his grain and roughness, dairying will pay him nearly double those figures, thus much more than enabling him to pay for the extra labor involved.

Both lines of farming require more study than does mere grain farming, but the lines of mental activity are rather different. The dairyman must pay very particular attention to his breeding and feeding operations, as well as to the care and management of his stock. His milk once produced, of good quality, sells itself, prices, generally speaking, being beyond his control. The beef man, however, must be of a keen business turn of mind, a good buyer and a good seller, if he is to succeed. He must buy not only the right goods, but buy them at the right time, if he would be

scope. The keenest business ability has plenty of opportunity. Skill in breeding, science in feeding, humanity and mentality in training, and business ability in buying and selling; even all these scarce sum up the qualities required by the good horseman. And at present, with markets buoyant for every grade of his product, it would seem impossible for the horse-breeder to stop short of making lots of money, while at the same time being engaged in a pleasing and aristocratic calling. Finally, for business affording wonderful opportunity of making money, or losing it, commend me to horse-raising.

A class of stock which has been, if anything, declining in popularity, but a class that is certainly profitable and pleasant to handle, is the sheep. For attention required and for food consumed, when returns from wool and flesh are considered, sheep should enjoy a much greater measure of popularity than has hitherto been theirs. In addition, where land is rough and forage scarce, no other class of stock can compare with the sheep for profitably using up all the grass or feed that may be grown, no matter how inferior its quality.

To summarize, one might say: Grain-farming for the slothful and careless, dairying for the industrious and progressive, bacon-production on a smaller or larger scale as an adjunct of the latter, or some other line of live stock; horses for the capable man not afraid of a risk, and a risk where you don't always win, either; sheep for the rough-land farmer, as well as for him who has little help and much land; and beef for him who joys in a little bit of labor, as well as loves the looks of a good fat beast.

Of the profitable making of this good fat beast, more anon.

Lumpy Jaw in Cattle (Actinomycosis).

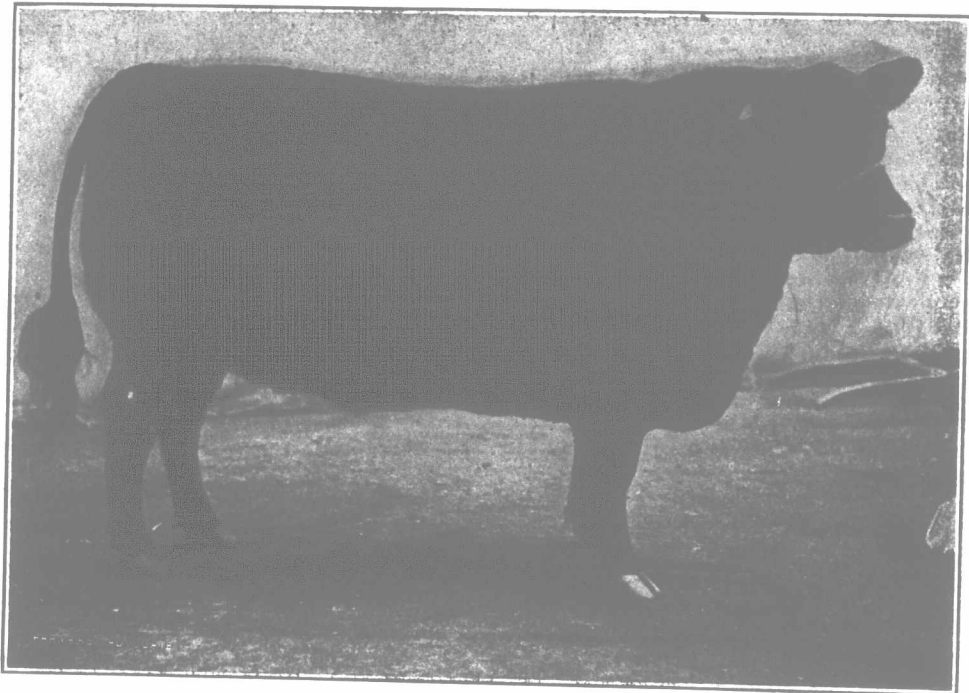
The disease known as lumpy jaw is comparatively common in cattle, if we are to judge from the reports from farmers, although it may reasonably be doubted if many of the so-called cases are not due to injuries, tooth troubles, etc., and are not genuine cases. Figures as to the prevalence of the disease in Canada are not available, although in Fried-

berger and Frohner the statement is made that "Canada shows the relative high percentage of two, and the remainder of North America one-fifth of one per cent. (0.2)." The latter figure would, we opine, be more nearly correct for Canada than the former. The disease has also been found quite extensively at European abattoirs in pigs.

Lumpy jaw (actinomycosis) is not a contagious disease. Experiments have been made time and again to transmit the disease by inoculation from animal to animal, but without success. It is not scheduled as a contagious disease by the Health of Animals Branch at Ottawa.

The ray fungus (actinomycetes), the true cause of the disease, vegetates on plants, and especially on those of the botanical genus, *Hordeum*, of which barley is a well-known member. This fungus has been found between the fibers of pieces of barley, found embedded in the tongues of cattle. It is supposed that infection occurs by the mouth from cattle partaking of food material carrying the fungus, which obtain entrance through wounds in the delicate membrane (buccal) lining the mouth cavity. Any farmer can understand how readily the mouth membrane might be torn by a barley awn, and the disease thus gain entrance, especially when it is remembered how difficult it is to get rid of an awn from the mouth once it is there. One authority, frequently quoted, is of the opinion that this fungus develops exclusively on the grain, and particularly on the awns of barley. Certain it is that the disease appears to be far more common when barley straw is fed to cattle, and that the disease is rare amongst cattle bred and fed on the ranges. The disease in some countries is termed "wooden tongue," due to the infection of that member and the hardening of the organ that results.

The disease, as seen in Canada, is usually located in close proximity to the bones of the lower jaw, and, as a result of the infection, an inflam-



Ida of Dalmeny 3rd.

Two-year-old Aberdeen-Angus heifer. Champion of the breed, Smithfield, 1906, and reserve for grand championship for best beast in the show. Exhibited by Earl Roseberry.

sure of selling at a profit. His selling, too, must be done right, and at the right time. In short, the beef man must be a good business man, and sometimes a bit of a breeder as well. The dairyman must be a scientist, a keen observer, and a bit of a business man as well.

To the dairying industry, the bacon-producing business attaches itself quite closely. Here every side of the farmer's intelligence will find full play. Producing bacon pigs profitably in considerable numbers the year round means much study, much work, and good business management. It is seldom that pigs alone on a farm can be made to pay, since their food must consist very largely of concentrates, and there would necessarily be considerable amounts of rough feed go to waste or be only partly utilized. Carried on along with dairying, or with any other line of stock farming, it is practically certain to make that line more profitable than it would otherwise be.

Even the man who does a bit of horse-breeding and fitting would find pigs profitable if he handled them right in connection with his business. But the horse-breeder to-day seems to have things so much his own way that pigs and cattle worry him not. For interest and opportunity for intelligent work, the horseman's seems to surpass most other live-stock lines. In this business a man's every faculty has the fullest

mation results, with swelling, which may be quite hard or spongy, in others soft, the latter due to breaking down into matter (pus) of a yellowish color and creamy consistency, but which, when the chalky pus is rubbed between the fingers, gives a gritty feeling. Occasionally this disease is seen in the throat (more correctly, the pharynx back of the tongue), several cases being seen in bulls which resulted in a continual roar in the breathing and the suspicion that such were affected with tuberculosis; they may have been, but not having tested them with tuberculin, we give the benefit of the doubt, and are of the opinion that actinomycosis was the cause of the roar in the breathing, especially in view of the fact that 75 per cent. of the cases yielded to the specific treatment for this disease. Occasionally other parts of the body are affected—the skin, lymphatic glands, lungs, udder, etc. When the tongue is the part affected, there is difficulty in taking food and excessive salivation (slobbering), and the organ is enlarged. The disease may be mistaken for tuberculosis both before and after death. Such can only be decided by a microscopical examination of the contents of an abscess.

Treatment may be given both surgical and medicinal, the former only being practicable in the early stages, and where the parts are well exposed. When properly performed, it is quite successful, as far as the point affected is concerned. Fortunately, the veterinary profession has in iodide of potassium practically a specific, which, when failure does occur, is due to the dose being too small and not continued, or to the disease being too far advanced. Two weeks is the usual period set for a cure from administration of the drug, in which time a pound may have been used. It is advisable to start with one dram twice daily, increasing gradually until twice that quantity is given per diem, or until the animal begins to water at the eyes and mouth, when the doses should be lessened or discontinued for a few days.

Effect on the Meat.—As to the effects of the disease upon the consumption of meat, no authenticated case is on record of its transmission from animal to man. In cases where the disease does occur in human beings, it is reasonable to suppose that infection may have occurred through the chewing of infected straws. The disease generally being local, inspection for food purposes is comparatively easy. The meat of cattle infected may, unless the disease is general—a rare condition—and affecting the general health of the animal, be used for food, providing the diseased parts are removed. The meat inspectors at U. S. stock-yards tag all lumpy jaws, which are yarded and all slaughtered on a certain day of the week, and post-mortem inspections made. In all cases the heads are condemned, the tongues being slashed with a knife so as to render such unmarketable, and the head is then sent to the fertilizer tank. If the disease is general, the entire carcass should be destroyed.

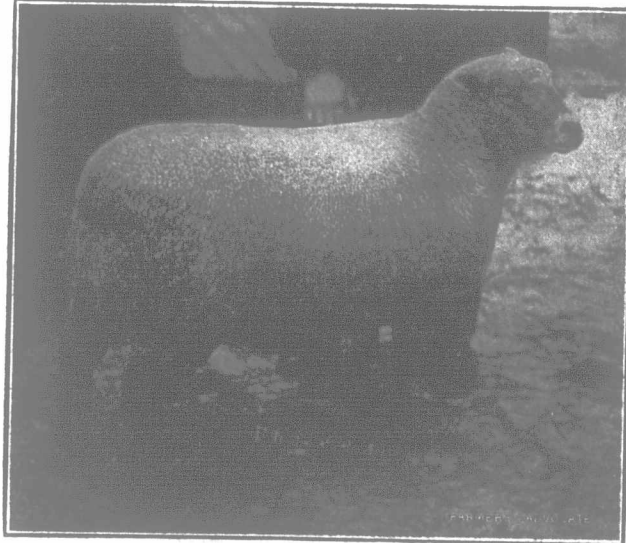
Management of Sow and Litter.

Following is, in part, an address by Mr. A. J. Lovejoy, of Illinois, a well known and successful swine-breeder:

The care and feed of the pig from birth to maturity, is one of the important elements to be looked after. By good feeding I do not mean that a pig should be stuffed with every ounce of concentrated feed that could be got into him, but that he should be fed liberally, and at regular intervals, such feed as will cause him to grow rapidly—feed that is composed of bone-making material, that you may grow both frame and flesh at the same time. This feed should be given at least twice daily, that he may develop into a well-rounded, symmetrical, evenly-balanced animal, properly representing in a high degree the breed to which he belongs.

To grow pigs in the best possible manner, I should begin before the youngster was farrowed by feeding the dam a ration that would develop the unborn pig so well that he would, at birth, be able to overcome all the various troubles that his pignood would be liable to encounter. To prepare the youngster for a good start in life, I would feed his dam during the period of gestation a ration well balanced or containing considerable protein, or bone and muscle making material. This may be found on almost every well-managed farm, and may be composed of different grains and grasses, with the by-products usually found on the farm, such as skimmed milk, more or less, generally less. Where this cannot be had, we have made a satisfactory ration of various grains ground together, such as shelled corn and oats, or barley and oats, or yet rye and oats, or all of the above mixed and finely ground together; and to this may be added a small quantity of middlings, or what is sometimes called shipstuff. If no milk is to be had, I should substitute about five to ten per cent. of Swift's digester tankage, which is 60 per cent. protein or bone-making material. This, added to the above mixture, will not only grow both frame and flesh, but will keep the digestive organs in the best possible condition.

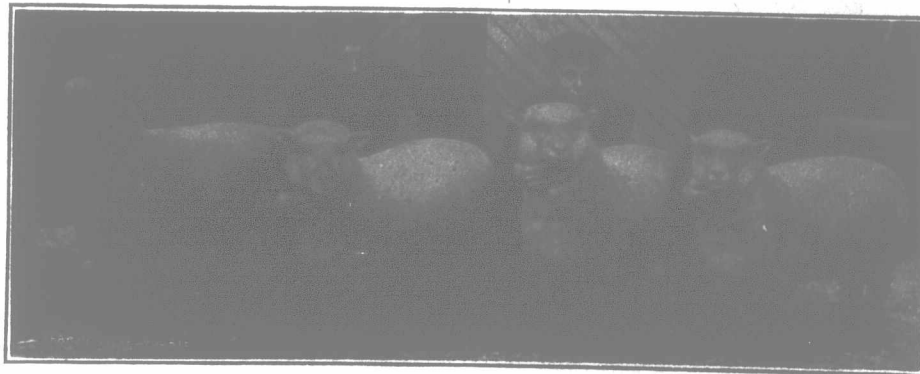
If in winter, and there was no pasture or grass to be had, I should also add to the mixture, or feed by itself, finely-chaffed, second-growth, well-cured clover, or, better still, alfalfa; and if neither of these were at hand, I should use a feed daily of bright, well-cured sorghum, which the pigs and brood sows will eat and relish. Sugar beets are also good, but not generally grown among Western farmers. These latter articles, added to the feed, give the necessary bulk which a hog needs in a small way to take the place of the grass he gets in summer. A sow fed in the above manner will, if given plenty of exercise, bring a strong, vigorous, active litter that will be ready to scrap for their dinner in less than ten minutes after birth. A litter well born is half raised.



Shearing Southdown Wether.

Grand champion fat sheep over all breeds, grades and crosses, International Show, Chicago, 1906. Bred and exhibited by Sir Geo. Drummond, Huntlywood Farm, Beaconsfield, Quebec.

When the sows are bred, I believe it pays to keep a record of when they were bred, so as to know exactly when the sow will farrow and be prepared to take care of the litter. Some days before the sow is due to farrow she should be placed by herself in a warm, dry place where she will not be molested, and fed the same ration she has been accustomed to, as a change in her feed at this time would be apt to derange her system. Let her ration be the same as she has been having, and when she farrows let her alone until she comes out, and then give her only a drink of water. When she again comes out give her another drink, and add a very little feed to it. Be careful that she is brought to a full feed gradually, that she may not produce too great a flow of milk before the pigs can take it. This is certainly the most critical time in the life of the young litter, as a little too much milk from the sow at first is almost sure to cause what is known as white scours, which, if not checked at once, will soon cause death. There is also danger, by starting the milk flow too soon, of causing the sow to become feverish and her udder hard



Sir Geo. Drummond's Pen of Southdown Lambs.

Winners of the cup over all breeds, grades or crosses, Ontario Winter Fair, Guelph, 1906. The Bell Cup has been won three years in succession by Huntlywood flock, and now stays there for good.

and hot; soreness will result, so the sow will not let her litter suckle—all of which tends either to kill the litter or so stunt them that they will not grow as they should.

After the litter have got well started, say from a week to ten days, the sow may be fed all she will eat of a good ration, but under no consideration make any change in her feed, or bad results will follow. When the litter is about three weeks old they will show an inclination to eat a little. At this time they should be given some of the same feed the sow is getting, and, if to be had, a little milk may be added. This side table should be placed where the mother cannot get to it, and the pigs given only a very little at a time, and under no circumstance should any be

left in their trough to sour. One of the first grains little pigs will eat is cracked shelled corn, and if a handful is thrown on the floor or ground they will soon clean it up. The trough that is prepared for the young litter should be extremely shallow, so that they may eat without having to get into it. A deep trough is very bad, as pigs will have to climb into it to eat, and are apt to be injured in getting in and out.

Started gradually in this manner, and any changes in the feed that have to be made are very gradual, the litter may be grown rapidly. When at the age of three months they may be weaned by removing the sow from the yard or lot where she and her litter have been, and the pigs will hardly know when they are weaned. If one wishes to wean at an earlier age, it may be done; but if the sow is a good milker it must be done gradually, by removing her for a part of the day at first, then, after a day or two she may be kept away for a whole day, and after a little all the time, till there is no danger of a caked udder and spoiled teats.

After weaning the pigs, they should be pushed along as fast as possible, by giving them good feed and a grass lot to graze in. If one has the milk, it is well to mix the ground feed in it; but if not, an addition of the 5 to 10 per cent. tankage will grow them about as well, and make just as large a pig for the age as if fed milk, and at little expense. Mix all feed quite thickly. Many a feeder makes a great mistake in making his pigs take too thin slop, and they have to take too much to get the nourishment they need. As the pigs grow older, a little corn may be given them; in fact, a variety of feed is always best at this age, but all changes must be made carefully, so as not to upset their system or check their thrift. Pigs properly fed and well bred should easily weigh 100 pounds at three months. This is the cheapest 100 pounds you will ever make; it will not cost to exceed 1 to 1½ cents a pound, while the next 100 pounds will cost 2 to 2½ cents a pound. These pigs should, at six months of age, weigh from 200 to 225 pounds each, and be ready to top any market in the world at eight months, and at a weight of 250 pounds or more. Handled in this manner, one may ship or sell his crop of pigs before every man in the neighborhood is ready, and in this way get the benefit of the early market. When every one is ready and all are selling, one usually finds the market declining. It is this kind of pigs that top all the markets and are packed in this country, and are sold abroad as the "Best Wiltshire" bacon and hams.

A Reply to Mr. Campbell.

Editor "The Farmer's Advocate":

Will you permit me space in your paper to reply to a letter I have just read in your columns, written by Mr. John Campbell, headed, "Quality of Sheep Imports." I think that letter one of the most misleading I ever saw, because I believe that the importation of rams of 1906 was, as a whole, equal to if not better than those of former years. He says that the country was deluged with rams from July till the International Show. We have about six hundred Shropshire breeders in Ontario—perhaps more—and I do not believe I am far out when I estimate the number of imported rams in use at one hundred. Now, sir, if all the other Shropshire breeders did the same as the writer of that letter, we would this year have required about 1,500 imported rams, because he advertises lambs from three imported rams. I believe the total number of rams imported by Canadian importers was about one hundred, and there were five or six importers. The number of imported rams sold out of that number to go to the United States is probably about seventy-five. So it will be seen that the Shropshire breeders of Ontario are doing as Mr. Campbell says, and not as he does. The Ontario breeders are not keeping up with the times. If some of them had sold some of the Campbell rams I have seen, and bought some of the imported rams that sold for about one-half their value at Chicago, they would improve their flocks a great deal. We all raise rams that do not suit us—Mr. Campbell admits it—and the poorer ones are sold cheap; and I am sorry to confess, after travelling about, that the largest percentage of the rams in use here are of the low-class, \$15 sort.

I will just touch a point in the letter which I consider most unfair; that is, that Canadian-bred ram lambs and shearing rams sold for more than twice as much as the imported ones, because they were not sold at auction, and they likely

were sold before the sale started, and likely to old customers; and then, there was only three or four of his top-notchers, both of lambs and shearings, and fitted as well as he could fit them. That is the point in the letter where he blows his own horn, and I think that was the sole object he had in writing the letter. I consider it a poor policy to try to make capital out of the misfortune of others. My advice to Ontario Shropshire breeders is, do the same as Mr. Campbell does—buy the best imported rams you can get. Brant Co., Ont. FAIR PLAY.

British Bars Stay Up Against Argentine Cattle.

Some months past reference appeared in these columns to steps that were being taken by the Argentine Meat Co., in conjunction with a powerful group of financiers in London for the establishment of extensive abattoirs on the Island of Alderney, in the English Channel. Blocking the scheme was the Foreign Animals Order of 1903, which prohibits the landing in Great Britain of slaughter animals from the Argentine Republic. This Order the promoters sought to have waived, so far as Alderney was concerned, but the ultimate effects of such partial removal of the restrictions were emphasized by those whose interests were threatened. Foot-and-mouth disease is rampant in the Argentine, and it is believed to be impossible to exterminate it. Not only was there strong protest from the pure-bred stockmen of the mainland, but the dairy breeders of the Channel Islands were quite strenuous in opposition to an enterprise which might introduce disease into their midst. For these reasons, the decision of the Board of Agriculture not to grant the requested privilege is received with great satisfaction throughout Britain.

THE FARM.

A Good Stone Basement Stable.

From time to time there has been appearing in these columns letters, with but one or two exceptions, denouncing the stone-basement stables as being damp, unsanitary, etc.

I quite believe what each one wrote, but it seemed to me that none of them went far enough. What I would like to have seen in each letter was the size of the barn, the height and thickness of the wall, the number and size of windows and doors, and the kind of floor.

I would like to say just a few words in favor of the stone-basement stables. Our barn is 40 by 70 feet. The wall is about 20 inches thick, built of limestone rock, no stone going right through the wall. It is plastered on the outside with lime, and on the inside with cement. If I had to do it over again, however, I would plaster it on the outside also with cement; it is 9½ feet high. There are 13 windows in it, each 47 by 35 inches, which allows for two sash, one to slide past the other, with four lights 16 by 16 inches in each. I might add, these windows open, something that can't be said of many windows I have noticed in other basements. There are three windows in the south end, four in the east side, four in the west side, and two and an opening for silo in north end; two doors four feet wide in the south end, one door four feet and one 6 feet six inches in the east side, and one four feet wide under the driveway in the west side, the driveway being built so that we can drive under it. We have two ventilators, 14 inches by 6 inches, one on each side of the barn, built in the wall between the joists, and these, I might say, are kept open at all times, unless when a strong wind is blowing and the thermometer is down low. The floor is Portland cement all over.

This stable has given us the best of satisfaction, being always very light and airy, and no hoarfrost forms on the walls. We have never yet seen the walls or the floor above dripping. The windows, of course, in very cold weather, cover with hoarfrost, but a very little sun on them thaws it off at once.

To those who may read this, I wish to say that I don't pretend this to be an ideal stable by any means. I am only stating facts as we find them in our stable. I don't think there is or ever will be a ventilating system invented that will automatically take care of a stable full of cattle; a man must use his own judgment in regard to temperature, air, etc., in the stable, being careful to have no cold drafts on the animals. When so many people nowadays sleep with the windows open, even in the coldest weather, why should cattle be subjected to a close, ill-smelling atmosphere. Many of the basements I have been in are built and situated so that it is almost impossible to get a current of air to circulate through them, and so many people seem to forget that when a space is full of air it is impossible to get fresh air in unless there is an outlet for that which is already in. Now, I think I have taken up enough of your valuable space. Thanking you for bringing this subject before the farmers of Canada. H. B. Wentworth Co., Ont.

For a Dry Basement.

Editor "The Farmer's Advocate":

I think the horse license act is dead and decaying; therefore should be buried deeply. I will only say that I have not met a horse owner or farmer who favors such an act.

As to basements, I have had some experience—12 years with a low stone basement pretty well under ground, with no evil results; since then, 10 years in a similar one, with no evil results. At present we have stone basement, and also frame stables for both cows and horses. As to frosty walls, the more stock, the warmer inside; the thicker the wall and the higher it is banked on the outside, the less cold air striking through to cause frost. Strapping and sheeting on the inside, leaving a small space, will remedy the whole matter. Keeping upper floors covered with straw or chaff will prevent frosty or damp ceilings and save floors and joists. Hemlock, beech or maple will rot in a few years if allowed to get frosty every cold snap, and wet from one cold spell to the next. You never see a ceiling wet or frosty beneath a mow of hay or straw. I am thinking of building a horse and cow barn soon. Here is my idea: Cement floors, on account of durability; foundation, stone or cement, three feet or so above the surface, for the same reason; large windows on that, and plenty of them; frame from foundation up, with 8-in. space at least; sheeted, papered and sided on outside; matched sheeting on inside; ceiling or upper floor matched, with good-sized hay loft above.

FARMER WHO CAN SAW A BOARD.

Grey Co., Ont.

Finishing Cement Floors.

Editor "The Farmer's Advocate":

Having had considerable experience in laying cement floors, abutments, etc., I venture to offer a few hints that may help others to steer clear of disappointments such as an amateur like myself may find.

The article by Mr. Geo. W. Elliott is well written, and one following his instructions carefully might succeed all right, and then again he might fail in one particular point, such as has been my experience. He says the upper coat should follow on lower coat within a couple of hours, else the upper part is liable to shell off in time. I have had just such an experience, so now, with me, the upper coat follows the lower within two minutes, if possible. This can be managed by mixing the two lots simultaneously. For the lower coat, a little on the moist side; the upper coat a little on the dry. Then tramp or pound both together, and otherwise work and finish in the usual way. By working both lots together in this way, we do not require to be so careful in sifting or selecting the finer gravel for the finishing coat, and we are absolutely sure of a firm job.

In regard to gravel, the coarser the better, unless stones are more than 3 in.; but some gravel requires treatment before being used. Where necessary, fine sharp sand should be mixed with it in sufficient quantity to fill openings between the stones, so the finished work shall form a solid, compact mass. G. A. ANNETT, Middlesex Co., Ont.

The Want-book.

Every well-regulated farmer's household has a "want" book. In this book a note is made of every want as it arises. Were human memories perfect there would be no need for such a record of things needed; but as too many of us have a way of forgetting, it is our duty to provide for what we need by having our memories refreshed occasionally.

The "want" book is an aid to foresight. Last harvest you were in a hurry when you laid away your binder or your hay fork or your rack-lifter. You were then perfectly well aware that some repairs were needed, or that certain improvements ought to be made. By this time, however, you may have forgotten all about it, though the winter is passing. If you had been wise, you would have made an entry to that effect in your "want" book under the heading, "Things to be done." Or, you were not satisfied when you threshed or dug your roots. You were convinced that you needed a change of seed. In the meantime you have almost forgotten about this necessity, and before you know it, seed time, with its rush of work, will be here, and the danger is that you will not make the required change with the care and attention the matter warrants. A "want" book would have helped you in this regard. And so, too, in the matter of making purchases. It is usually the man who buys under the pressure of immediate want who makes a hasty and unfortunate choice. The "want" book affords time for reflection, and the man who thinks is the man who will win in the end.

Those who have never tried keeping such a record of wants are not aware of the extent to which they may save themselves time, worry and money by making a note of things that must be attended to in the near future. No farmer can

do everything that he would like to do, nor can he purchase everything that he feels he needs. At best he can but make a careful selection, and such a selection comes only by hard thinking. It is the small leaks that sink the ship, and it is the small wastes that usually ruin the farmer. The "want" book will be an aid to system, without which no farm can be a success; it will be saving of temper, and it will help not a little to advancement in everything the farmer undertakes. Wentworth Co., Ont. O. C.

Cold Air Not Necessarily Pure.

"Fresh air means cold air," remarks one of our most esteemed correspondents. As a rule it does, in winter, but cold air is not necessarily fresh.

If a mouse were put into an air-tight glass cage, it would gradually use up the oxygen therein and convert the air into the products of respiration, notably carbonic-acid gas. Finally, when the oxygen was all consumed the mouse would die of asphyxiation. But the inside temperature would soon correspond exactly with the temperature of the outside air. The heat generated by the mouse would gradually pass through the glass by the process called conduction. On the other hand, if the mouse were confined in a loosely-woven straw cage, it would live indefinitely (provided it were supplied with food) because the straw cage would allow continual exchange of outside with inside air. Yet straw, being a poorer conductor of heat than glass, would be losing less heat by conduction than the glass cage would, and in all probability the straw cage would keep the mouse as warm as the glass one, even allowing for some lowering of temperature by admission of cold outside air. In fact, the straw cage would keep him warmer, because the mouse, steadily supplied with fresh air, containing abundance of oxygen, would generate more body heat than the expiring mouse breathing vitiated air in a sealed glass jar.

The contrast between the mouse in the glass case and the other mouse in a straw cage presents an exaggerated analogy between a solid masonry or concrete and a wooden stable. Have you ever thought of it in this light before?

Cedar-block Wall for Basement.

Editor "The Farmer's Advocate":

Being a reader of your valuable paper, I see articles regarding the kind of stables or basements most suitable for stock. I built a basement under my barn three years ago, with about two feet of stonework above the ground, and then of cedar blocks, cut eighteen inches long, all sizes, mortared in the same as stonework. The blocks were laid crosswise of the wall, and built up six feet above the stonework. They can be built much more cheaply than stone, as there is no facing to be done, and will make a very nice-looking wall if the blocks are lined or kept up even on the outside. If you desire, after it is built, you can give the ends of the blocks a coating of cheap paint. I painted mine with milk paint, made of new milk mixed with Portland cement to the consistency of paint, colored any tint you wish. It will cover the ends or surface of the blocks much better than any other paint that I know of, and it is lasting.

I consider that I have as dry a basement as can be found anywhere. I have six large windows in the basement, each composed of twelve panes of glass twelve by fourteen inches. The size of the basement is sixty by forty-two feet, with a board front on barnyard side. I have no other ventilators than two traps for putting down feed, and I claim that if you can keep the cold from striking in, preventing condensing, that no dampness will gather. Keep the floors well covered overhead, and I do not think the ceilings will gather dampness. I am so well pleased with my basements that I put one under another barn on my other farm last summer the same as the one I have described, and I think I can recommend this kind of wall for basements to anyone wishing hoarfrost-proof and dry stabling. York Co., Ont. WM. CARRUTHERS.

A New Light in the Home.

We thank our old subscribers for introducing "The Farmer's Advocate and Home Magazine" into so many new homes. These new readers will be greatly benefited, and will wonder why they have not subscribed before. Everybody appreciates the value of the paper in the work of the farm and in the home.

An esteemed Odessa subscriber writes: "For years I have been troubled with lice on my cattle. I tried every remedy I could find in 'The Farmer's Advocate' or hear of, but every spring they were just as bad. Last spring I dipped them all, and saturated them with kerosene oil from the nose to the tips of the tails, and made a clean job."

Store Ice on Every Farm.

No dairyman—no farmer, in fact—should require a word of admonition to put up a supply of ice. It is practically an impossibility for a creamery or cheese factory patron to deliver his goods always in first-class condition unless he has either ice or cold spring water. Ice saves work, and enables one to do his duty by the cheese or butter maker. Ice also saves the housewife a great deal of worry and inconvenience, enabling her to keep butter, milk, meat, and all kinds of victuals in a fresh, appetizing condition. It enables her to keep a steak or roast from one trip to the butcher shop or visit from the butcher's wagon until the next trip or visit. The ice-house and the household refrigerator save waste in many ways, and are such a genuine source of comfort and satisfaction that it becomes a case of "once with ice, never without it."

An expensive building for storing ice is unnecessary. Any old shell of a structure is sufficient, and a tyro of a carpenter can put it up. Some sawdust on the ground serves as a floor. A foot of sawdust around the outside of the ice practically forms the wall, and another foot over the top is the real ceiling, though the building should have a gable roof extending well out from each end at the peak. A screen-protected hole just under the gable in each end wall affords ventilation, preventing the air in the top of the ice-house from being unduly heated in summer by the sun beating on the roof. Surface drainage is usually sufficient, though an underdrain may lead from the lowest point in the floor, if it is desired to keep the surrounding ground dry.

A good plan is to have the ice-house extending north and south. Five or six feet of the south end may be occupied by an entry in the center, with a sawdust bin or storage room on each side. This anteroom keeps the south sun from striking the wall next the ice.

Cut the ice in medium-sized cakes, as near cube-shapes as convenient; with this shape there is likely to be less waste, for the surface of each chunk is less in proportion to the volume than if the ice is cut in the form of thin flakes. Pack it solidly in the bin, using chips of ice to fill the interstices. Some like to sprinkle a thin layer of sawdust over each cake to prevent the cakes freezing together and thus causing trouble in getting it out. Allow 12 to 16 inches of sawdust around the outside between ice and wall. Pack the sawdust in well, and during the summer tramp it down around the wall every few days, using a stick to make sure there are no spaces in the sawdust-packing. For household use merely, a bin 12 by 12 by 10 feet high should be ample for all needs. For cooling milk, Mr. J. W. Mitchell, B. A., of the Eastern Dairy School, Kingston, recommends creamery patrons to store two tons of ice for each cow kept.

While it is well to have clean ice, this is not so very important, for it is seldom one can get it clean enough anyway to be fit to be put in drinking water. The way to cool drinking water or milk is to put the ice in water in a vessel surrounding the fluid to be cooled.

Wood Walls Not Always Dry.

In a basement stable recently visited, the wall was of large hollow bricks, resting on a cement-concrete base about a foot above the ground surface. It had been observed, as in other barns, that when hoar-frost gathered inside the concrete wall, it did not on the bricks. But what struck us forcibly in this and a couple of other stables was the fact that the inside of the large doors were saturated almost to the dripping-point with wet, while the walls were quite dry. The doors were of single pine boards, matched or very closely fitted, and in one instance were lined with tar paper, which had also been very wet. Among the wettest interiors we have inspected were those in wooden Manitoba stables, made very close to withstand the intense cold of that climate. Dryness or dampness is not altogether a question of wall material.

A Good Basement Stable.

The accompanying plan of a barn, erected last summer for John W. Johnson, Middlesex Co., Ont., combines so many commendable features that we give it for the benefit of those who are contemplating the erection of new barns, or who have old ones that can be remodelled or extended accordingly. The basement, which stands clear above the surface of the ground, is light and airy, having an 8-ft. ceiling, and is a model of compactness and convenience, as a careful study of the design and measurements will show. Being ell-shaped, it provides for a convenient drive barn in which to unhitch and store rigs on same level with horse stable. There are stalls with rigid stanchions for 24 head of cattle (dairy cows) on north side and 11 head on south side, but this space is simply divided by a gate into two large pens in which cattle run loose. There is no manger-front, but a drop of eight inches from

feed-passage floor to bottom of manger. The floors, etc., are cemented. The space to the south-east is a stack-yard, and the 6-ft. door opposite the double horse stall is convenient for working teams going to and coming from the fields. The stable proper is lighted with 17 windows, three lights (9 x 10 inches) in upper sash, which swings on hinges at bottom, and six lights (10 x 12 inches) in the lower sash.

The upstairs plan has also the great merit of simplicity. The approach is from the west. There is a double barn floor, one section (south) being 16 feet wide by 36 feet long, and the other 12 feet wide. To the north is the granary, 30 by 40 feet, and to the south bay space 30 by 33 feet for hay or grain. The east wing, 40 by 50 feet, is divided into three bays, and, being directly opposite the end of the barn floors, is very handy for straw storage at threshing time, or for hay. The walls are of large, hollow brick. The cows and other stock go out to water. Mr Johnson finds his stable not only convenient, but comfortable and dry.

A Season's Experience in Fruit Handling.

The season of 1906, just closed, has been a very good one for the fruit industry of Ontario. In this the small-fruit growers shared. The yield was fair, prices good, and dry weather enabled the grower to gather fruit in good shape, and condition was such that shipping quality was excellent. The season's work of the St. Catharines Cold Storage Co. has proven the largest and most successful since inception.

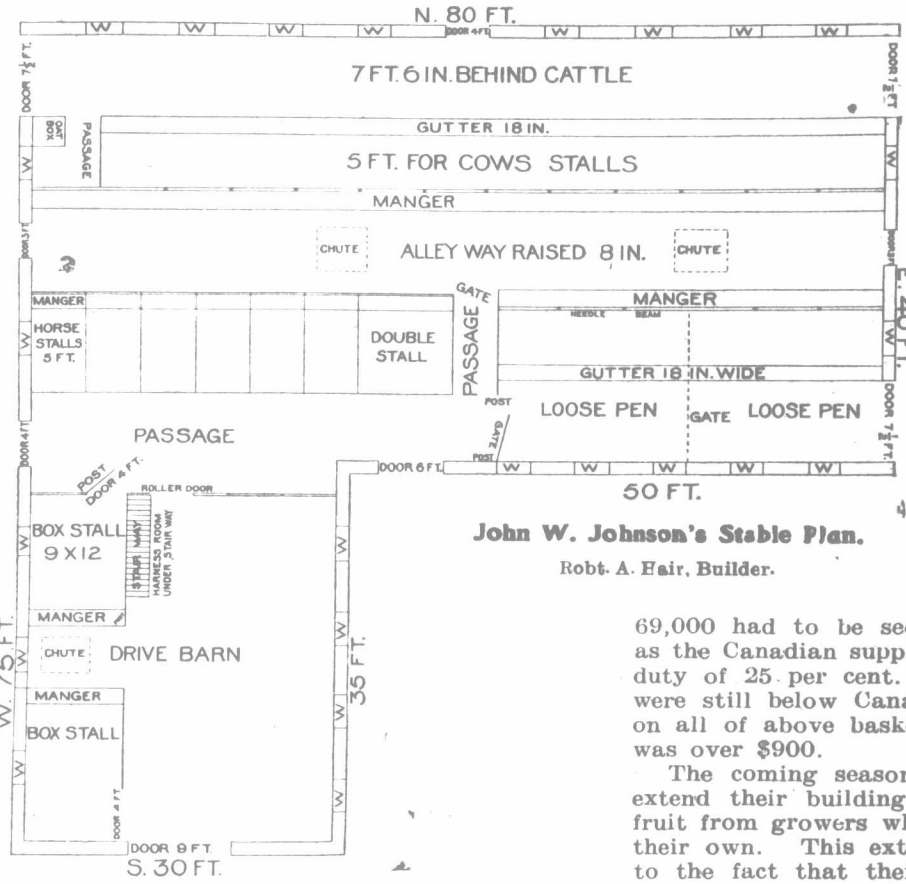
Thirty-one cars were sent to Winnipeg, and sold there for \$21,147, netting the growers \$14,857. Thirteen cars were sold to other points in the West, fifteen in Ottawa, and seven in Montreal—thirty-five in all—and netted the growers \$15,548. Besides this amount, about seventy-five carloads were sent to Montreal, Ottawa and Toronto on commission, fruit furnished by outside growers, and loaded by the Company in refrigerator cars, and iced by the Storage Co., fruit going forward at carload rate of freight, thus saving shippers over one-third of regular freight rates. On the commission some \$412 was saved to the shippers on regular commission rates. The sales of fruit and shipments to the Northwest stiffened prices here, and prevented glutted markets at home.

Ten tons of sulphur, 2 tons of bluestone, 350 pounds of Paris green and 300 bushels of lime were purchased for spraying. This material is always of the purest quality, and furnished to members at low prices. Three power sprayers and 13 hand pumps were also purchased. One thousand five hundred berry crates, 110,000 berry boxes, 90,000 11-quart baskets and 160,000 grape baskets were purchased. Of the above number, some

69,000 had to be secured in the United States, as the Canadian supply ran short, and on these a duty of 25 per cent. had to be paid, but prices were still below Canadian makers'. The saving on all of above baskets by purchasing wholesale was over \$900.

The coming season the Company propose to extend their building, and purchase and pack fruit from growers who are not prepared to pack their own. This extension is necessitated owing to the fact that their Western customers could not be given all the tomatoes, pears and peaches ordered, especially for fruit wrapped and packed in boxes. A pleasing feature of the season's business is the universally-expressed statements from the four places in the West where fruit was sold, "that all packages bearing the brand of the Company turned out well." The call for "Prairie Brand" next season has already commenced, as two buyers have visited the Company and made arrangements for next season's supply. A supper was given to all of the shippers by the president and vice-president at the close of the season.

Arrangements are now being made for supply of spraying material for spring work, and a contract closed for next season's baskets. Confidence in the fruit business is shown in the preparations for large plantings and orders given to nursery firms for peach, pear and cherry trees, and grapevines.



GARDEN ORCHARD.

Sooty Fungus on Apples.

Editor "The Farmer's Advocate":

The Sooty Fungus, or, as it is sometimes called, the "Grey Scab," "Fly Speck," or "Ink Spot," was very prevalent in some parts of Ontario last year, and is a rather serious pest, from the fact that it develops upon apples after they are packed in the barrels. This disease, which is caused by a fungus, develops to the greatest extent in low-lying orchards, along flats, or in valleys, but may be widespread in damp seasons. Why it should have been so prevalent during the past season, when in many parts of the Province there was such a remarkable shortage of rain and moisture, is hard to understand, but from reports received this seems to have been the case. Apples which have been particularly affected were the Rhode Island Greening, Tolman Sweet, and some other winter apples of a similar nature. The disease appears rather late in the season as a small cluster of small black points. These spread and form black, discolored, irregular patches, and after the apples are closed up in barrels the affected areas frequently spread over the surface of the apple and produce the effect known on the Montreal market as "Clouded Fruit." This disease is not considered difficult to control, and seldom occurs in orchards where the fruit is protected by regular spraying. The ordinary poisoned Bordeaux mixture, which is used for controlling leaf-eating insects, as well as Black Spot and other fungous diseases of the apple, will control this one also without difficulty.

JAMES FLETCHER,
Entomologist and Botanist.
Central Exp. Farm.

Subscription Label.

Please take notice of the date on the address label of your paper. If the date is not changed within three weeks from the time of your remittance, advise us at once, giving full particulars of the manner and date of sending it.

Horticultural Progress.

XIV.

Prepared for "The Farmer's Advocate" by Prof. W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

"Plant Breeding in Relation to American Pomology": Maine Agricultural Experiment Station, Orono. Bulletin 132, by W. M. Munson. This bulletin is not a record of experiments conducted at the Maine Experiment Station, but is a summary of the principal facts in the history of the improvement of fruits by breeding, and is evidently intended mainly as a guide to students. It should, however, prove useful to fruit-growers generally, as it gives in a few pages information which could only be obtained otherwise by reading several books. The first two great leaders in the breeding of fruits were Jean Baptiste, Van Mons and Thomas Andrew Knight; the former born in Brussels, Belgium, in 1765, and the latter in England in 1759. Though contemporaries, they worked from different standpoints. Van Mons believed that the best way to improve fruits was by selection from young bearing trees. He would begin his work with a young tree of a promising type, sowing the seeds from it and raising trees, from which he would again obtain seeds as soon as they began to fruit, and so on from generation to generation. He believed that there was a limit to improvement in varieties obtained by this method, and that when this was reached future seedlings from this

strain would be of poorer quality, and to obtain other good sorts it would be necessary to start from another variety not so good, but capable of improvement through its seedlings.

Knight believed that, in addition to selection, introduction of new blood by cross fertilization was necessary. Van Mons, in his fifty years' work, proved the importance of selection, and originated many fine varieties, but failed to show that his was a better method of improving plants than by cross breeding and selection. In the fifth generation, by selection, Van Mons was able to get pears to fruit three years from the seed, but this early fruiting was obtained at the expense of vigor, causing a weakening of the constitution. Some of Van Mons' seedling pears are among the best even at the present day, examples being the Diel and Bosc. Van Mons' work was confined mainly to pears, but Knight took in hand the improvement of most of the hardier fruits, and also vegetables. The information he gave to the world from the results of his work in the breeding of fruits by crossing has been of great value to more recent workers.

Examples are given in this bulletin of varieties of fruit which have been originated in America by selection and by cross-breeding. Some interesting chapters in this bulletin are "The Limits of Crossing," "The Influence of Soil," "The Use of Unripe Seed," "Breeding from Asexual Parts." In connection with the last-mentioned subject is discussed the question of individuality in fruits, the author believing that productive strains of varieties may be developed by propagating from individual trees or bushes which are more productive or better colored fruit than others. This line of work is being investigated at Ottawa, where trees of some varieties have proved themselves to be much more productive than others of the same age. Young trees, as well as top grafts, are now growing from the poorest and best-yielding trees, and definite information as to permanence of this apparent individuality will soon be obtained. This bulletin also contains chapters on the improvement of the strawberry, grape, pear, apple, plum and blackberry in America, with lists of representative varieties.

The writer, in conclusion, draws attention to the many unsolved problems in plant-breeding, which can only be solved by the classification of the present knowledge of the subject and by scientific research.

Mushrooms that I use for canning grow in the open air on the Sackville marshes without any cultivation or preparation whatever. Some years they are plentiful, and some years very scarce, but if they are plentiful we get loads of them in a day, and they have a far better and stronger mushroom flavor than any others grown that I know of. If you ever picked and cooked mushrooms down on the old farm, you have them in mind.

JAS. R. AYER.

Westmoreland Co., N. B.

POULTRY.

Successful Poultry-raising in 1906.

I set my first incubator of eggs on March 24th, the chickens hatching out about the 14th of April. The second hatching came off about the 6th of May, and a third about the 28th of May. When I started the incubator, I set some hens so as to have their chickens hatching out at the same time as those from the incubator. When the latter hatch out, I give the chickens to the hens. In one case I had not enough hens to take all the chickens, so I put the rest of the chickens in a brooder until other hens hatched out their chickens, and gave them to these hens. The hens mothered them just as well as if they had hatched them themselves. In this way I raised about four hundred chickens.

On the 21st of June I shipped the cockerels hatched in April to a produce company in Toronto. They weighed from 2½ to 3 pounds each, and brought 19 cents a pound live weight. The cockerels out of the second hatching I sent away on the 10th of July. These averaged 3 pounds, and brought 16 cents a pound, live weight. On July 23rd I sent 30 cockerels to the Central Ex-

perimental Farm, Ottawa, for experimental purposes. In all, I sold 97 cockerels. This left me with 80 to fatten. These I crated on the 15th of November, and fattened for four weeks. When they were ready for market, the largest weighed 9 pounds, and the smallest weighed 7 pounds. They all brought 15 cents a pound. About the 1st of September I started to kill off my chickens that were not fattened, for private customers. These also brought 15 cents a pound.

On November 12th I sent 40 pullets to New Ontario, and got a very satisfactory price for them. I have kept 47 of the early pullets for winter layers. These are all laying now, some of them starting to lay as early as August. I have a pen of one-year-old hens that are not laying now; they will not lay until March. These are the eggs I will use for hatching. I do not find eggs satisfactory for hatching from hens that have laid all winter. I never keep a hen over two years old.

In December I got 77 dozen eggs from my hens. Of these I sent 71 dozen to Montreal, receiving 50 cents per dozen.

For many years I raised Barred Plymouth Rock fowl, and found them most satisfactory. Being advised to try the Buff Orpingtons, I got a setting of eggs, and found them so successful that I continued raising them, also. I find that the Buff Orpingtons make good mothers, and, in raising fowl, this is an important item to be considered.

(MRS.) MARGARET YULL.

Lanark Co., Ont.

Sidney A. Denyes writes us: "By wetting the interior of my henhouse and roosts with water and applying dry ashes I got rid of the mites, but it would not kill the big red lice that sit on the roosts and bite the hens at night. I used coal oil on them, but it had no effect. A proprietary fly and insect destroyer killed them."

THE FARM BULLETIN.

Watch for the Index.

Those of our readers who have been obliged to write to us for the reprint of articles formerly published in "The Farmer's Advocate" will be especially pleased with the following announcement: Henceforth at the end of every half year we shall have published in "The Farmer's Advocate," and enclosed in one of the current issues, a complete index covering that period of time. This will, we trust, render the finding of articles and answers to questions an easy matter, while it will save us the space which would otherwise be devoted to reprinting. With such an index you may, simply by saving all your copies of the paper, speedily come into possession of a valuable and convenient agricultural reference library. This will cost us considerable, but we wish to do the best possible in every way for our subscribers. The index, covering July-December, 1906, will appear within a short time. Watch for it.

A. H. Jacobs' Shorthorn Sale.

The auction sale of the herd of Shorthorns belonging to Mr. A. H. Jacobs, at Blyth, Ont., on January 16th, was well attended, and the very useful lot of cattle were sold at fairly good prices. The four-year-old imported bull, Broadhocks' Golden Fame, falling to the bid of Mr. T. Mercer, Markdale, Ont., at \$805. The roan yearling-bull, Broadhocks' Victor, went to Mr. J. McDiarmid at \$150. Sir Broadhocks, a red two-year-old bull, was taken by Jos. Walker, Wingham, at \$125, and Broadhocks' Prince, by P. Campbell, Amberley, at \$105. The highest price for females was \$100 for Flossie, seven years old, secured by A. Stevenson, Atwood.

Short Courses at O. A. C.

The large number of interested and enthusiastic men who have been attending the short courses at the O. A. C., Guelph, Ont., indicates that the courses are not decreasing in popularity. In the two weeks' course of stock and seed judging there have been in regular attendance nearly two hundred and fifty students, while the special classes in poultry and dairying were crowded almost to the limit.

The number in attendance at these two latter courses is necessarily limited, in order that the instructors—Professors Graham and Dean—may be enabled to give each member personal instruction. A noticeable feature of the courses this year was the large number of younger men present, as compared with the greater number of older men present in former years. Practically all were new men, who had never on previous similar occasions taken the course, and the interest aroused in these will, no doubt, stimulate and accentuate their efforts for the betterment of agriculture.

The aim of those in charge was to give a maximum amount of information in a minimum space of time, and in order to do this it was necessary to crowd work considerably. From 8.30 to 10.00 each morning was spent in seed judging, under the direction of Prof. Zavitz, who has just returned from a trip to the continent, and his assistants, Messrs. Buchanan, Bell and Squirell. Some one of the staple farm crops was discussed each morning, their valuable properties emphasized, and several samples distributed for practical work in judging.

The classes for the judging of live stock were held in the live-stock pavilion, and, as a rule, commenced immediately the class arrived from seed judging, which was held in the new mechanical building. In order to make the course a success, Professors G. E. Day and H. S. Arkell spared no pains. College stock, of which there was insufficient, both of numbers and variety to equip all classes, was supplemented from the flocks and herds of well-known breeders: J. G. Hammer, Brantford, Ont.; H. Arkell, Arkell; Telfer Bros., Paris, Ont., and Mr. Laird, of Guelph, were present with fairly strong representations of Shropshires, Oxford, Southdowns and Cotswolds, respectively, while J. E. Brethour, of Burford, and Mr. Moodie, of Guelph, aided with Yorkshires and Berkshires in the swine classes. Col. D. McCrae, of Guelph, had some of his best Gallows present, in order to give the men a chance to see this breed. O. Sorby and A. Aitchison, both of Guelph, who for many years have assisted by loaning their Clydesdales, were present with some choice ones. The classes in the lighter breeds were filled out by horses from local men—McConnell, Harvey and Tovell. The classes were most of the time in charge of Prof. Day and Dr. Reed, assisted by Mr. Arkell, and the men who owned the stock before the class.

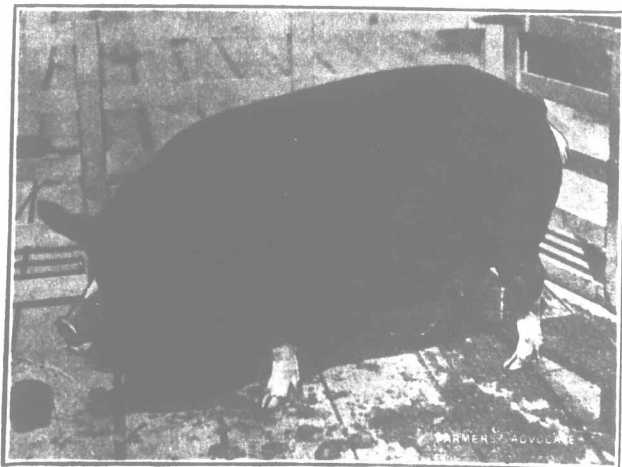
The block test, which is annually held in connection with the course, was conducted again this year. Four steers, two Shorthorns and two Aberdeen-Angus, were brought before the class, passed upon, and placed, and then slaughtered and their carcasses exhibited the next day. Mr. John Gosling, of Kansas City, Mo., took charge of the class, and acted as referee, giving all possible aid, and entire satisfaction. This is one of the most important features of the work done during the course, and the value of it cannot be too strongly emphasized, as it shows clearly why the development or lack of development in certain parts of the animal are desirable or otherwise. Block tests were also conducted with fat sheep and swine.

The courses in poultry-raising and dairying will continue for some time yet. The dairy school closes March 22nd, and the course in poultry-raising lasts four weeks.

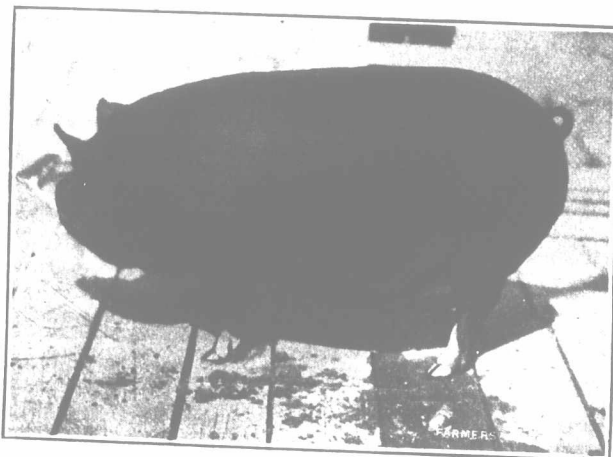
Iowa Farmers at School.

At the 1907 short course for farmers, at the Iowa State Agricultural College, at Ames, 654 students were enrolled in the stock and grain judging work, 79 in the dairy course, and 32 in the domestic science course, a total of 765 students.

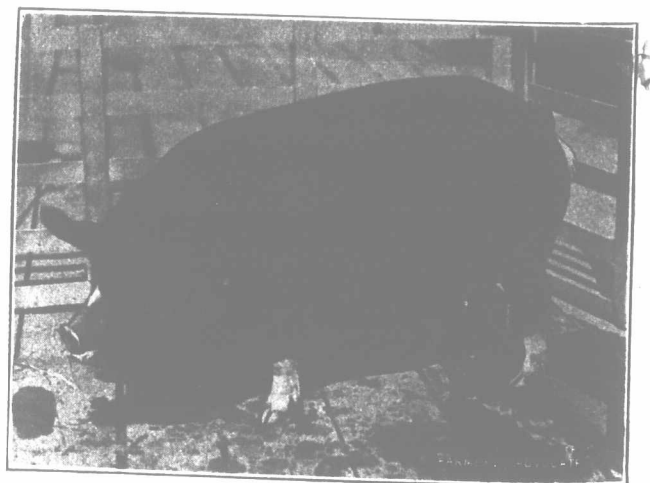
Dairy Commissioner J. A. Ruddick is arranging for a fine display of Canadian dairy products at the big Irish exhibition, Dublin, this season.



Wandsworth Princess.



Bell of Balham XVI.



Countess of Wandsworth.

Young Berkshire sows, imported and owned by L. E. Morgan, Millboro, Ont.

A Live Dairymen's Convention at London.

The fortieth annual convention of the Western Ontario Dairymen's Association was held in the Forest City last week, January 16th, 17th and 18th. In his opening address, President Thos. Ballantyne, Jr., congratulated the convention that the past year has seen further growth in the prestige of Canadian cheese. The makers are more proficient than ever before. The weak point still is the condition of much of the raw material, and makers were urged, by every means in their power to insist on the best possible quality of milk and cream.

The price of cheese has been consistently strong, owing to the beef scare, a short make of cheese in England, and dry summer on both sides of the Atlantic.

The export butter trade has not made such a good showing. Shipments from Montreal were 212,000 packages less than in 1905, the shrinkage in value being \$2,600,000. This falling off was accounted for largely by increased consumption at home. A great need of the co-operative butter business is more efficient cold-storage at creameries. The London Times was quoted in substantiation of this point. During the summer a butter-scoring contest has been carried on, and the creamery instructors have done some experimental work under creamery conditions.

The appointment by the Government last spring of two sanitary inspectors for the Province, was commended as a move in the right direction.

FINANCIAL REPORT.

The financial statement, presented by Secretary G. H. Barr, showed a balance carried over from previous years of \$718.07; total receipts of \$5,853.84, and total disbursements of \$4,733.41, leaving a balance of \$1,120.43 to the good.

MILKING MACHINE FROM A BACTERIOLOGICAL STANDPOINT.

S. Fred Edwards, Bacteriologist of the Ontario Agricultural College, addressed the Convention on the "Use of the Milking Machine from a Bacteriological Standpoint." His predecessor, Prof. Harrison, had investigated two different makes of milking machines, the Thistle and the Murchland. The results of these investigations have been already published; his own related entirely to the Burrell-Lawrence-Kennedy machine, which had been in use in the College dairy during the past year.

The highest number of bacteria found at any time in machine-drawn milk was 1,208,000 per cubic centimeter. The lowest number found in milk drawn by the machine, when cared for according to manufacturers' instructions, was 203,000 per c.c. The average was 500,328 per c.c.

With milk drawn by hand, the highest count showed 68,900 bacteria per c.c. The lowest was 3,200, and the average number of bacteria in the milk drawn by hand was 23,583 per c.c., or only about one-ninth as many as in milk drawn by the machine when cleansed according to manufacturers' instructions.

Regulations regarding the milk supply of various cities permit a bacterial content varying from 10,000 to 50,000 bacteria per c.c. Judged by this standard, the machine-drawn milk contained far more bacteria than should be tolerated.

In an effort to get a better test, the manufacturers' directions were improved upon by boiling the rubber parts and cover once a week. On the days after this was done, the average of the counts showed 37,962 bacteria per c.c. Two samples were below 16,000. But samples taken when six days had elapsed after boiling showed nearly 150,000 per c.c.

For the next test, an expert from the manufacturers prepared the machines with great care. The count then showed bacteria to the number of only 1,407 in one sample, and 1,776 in another. The care taken in this case, however, would be quite impracticable for a dairy farmer.

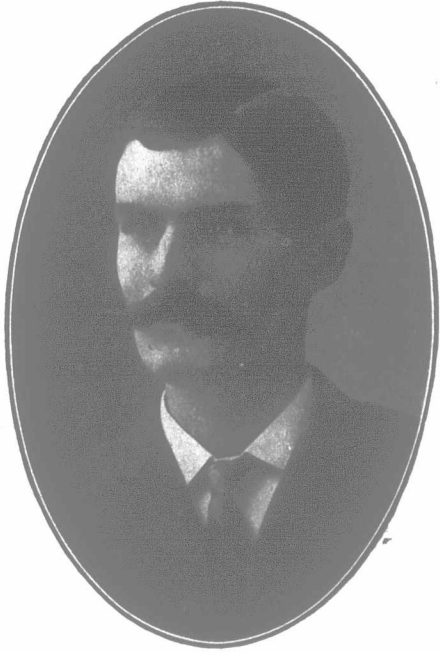
Prof. Edwards' conclusion was that, with extra precautions to keep the machines clean, machine-drawn milk might be secured that would compare fairly well with hand-drawn milk, and in this his experience corresponded with that of the Ohio Experiment Station. But the ordinary cleansing of the machines, such as recommended by the manufacturers, resulted in milk with a much higher bacterial content than that of milk drawn by hand.

A DAIRY HERD COMPETITION.

The directors of the Western Association decided during the summer to offer two medals for a dairy herd competition.

The regulation governing this competition was that no herd of less than eight cows would be allowed to enter, and the prizes awarded to the patron receiving the largest amount of money per cow from any cheese factory or creamery in Western Ontario, from April 1st to October 31st, 1906. Figures to be taken from the factory or creamery books, and certified as correct by the secretary and maker.

Fourteen patrons of cheese factories and one patron



John McQuater, Ow n' Sound, Ont.

President of the Western Ontario Dairymen's Ass'n.

of a creamery entered the competition. Two of these failed to send in statements. The following is a tabulated statement of the herds:

| NAME. | BREED OF COWS. | No. of Cows. | Average Lbs. per Cow. | Average Money per Cow. |
|-----------------|---|--------------|-----------------------|------------------------|
| M. L. Haley, | Springford—Holstein..... | 11 | 6512 | \$62.50 |
| M. H. Haley, | Springford—Holstein grades | 12 | 6688 1/2 | 61.14 1-3 |
| Jacob Swance, | Norwich—Holstein grades... | 12 | 6660 | 60.90 |
| W. E. Thomson, | Woodstock—Holstein grades | 12 | 6691 | 60.48 |
| W. E. Mason, | Tyrell—Holstein grades..... | 20 | 6730.4 | 58.92 |
| Martin Swance, | Springford—4 grade Short-horns, 9 grade Holsteins | 13 | 6356 | 58.60 |
| Wm. Bell, | Avonton—Holstein grades.... | 9 | 5886 5-9 | 56.93 |
| Chas. Baird, | Motherwell—Holstein and Holstein grades..... | 16 | 6177 | 56.79 |
| Reuben Gleason, | Medina—Holstein grades..... | 24 | 5617 | 54.25 |
| R. M. Cowing, | Listowel—6 grade Holsteins, 10 grade Shorthorns ... | 16 | 5328 | 51.08 |
| W. H. Mead, | Lakeside—Holstein grades... | 8 | 4640 5-8 | 45.90 1-2 |
| Chas. McCann, | Glendale—Shorthorn grades. | 9 | 4227 2-9 | 40.61 |
| Robt. Bowie, | Beachville—Not given..... | 8 | 5933 | 56.07 1-2 |

It was not the patron who received the most milk per cow that won the prize, and this is due to the fact that the charges for making are greater in some factories than in others.

If another competition was entered into, said Chief Instructor Barr, in presenting his report, he believed the prize should be for the most pounds of milk per cow, instead of for the most money, as the price for making and drawing the milk varies so much in different factories and creameries.

He believed the Dairymen's Association would be doing a wise thing to offer a handsome prize for a dairy herd competition in 1907.

Since the prizes were awarded a statement has been received from Mr. Wm. Cornish, Putnam, as follows: 10 cows; average pound per cow, 6552 lbs.; total money, \$631.59; average per cow, \$63.15. Had this statement been received in time, Mr. Cornish would have received the prize.

HOW THE PRIZE HERD WAS HANDLED.

After the results of the herd competition were announced, the winner, M. L. Haley, of Springford, addressed the convention. A few years ago he began using a pure-bred dairy sire, and by liberal feeding, testing his cows occasionally, and weeding out the poor ones, he has built up a splendid herd of 11 cows (including a couple of two-year-old heifers), which in nine months of the past year (the competition covered only seven) made an average yield of 7743 pounds of milk, the cash returns being \$76.08 per cow. He lays much stress on the importance of feeding the cows liberally when dry on succulent feed, so as to build them up for a heavy season's performance. He also feeds his heifers liberally, developing them into milkers. He emphasizes regularity in time of feeding and milking. All the feed is produced on his 90-acre farm; till six weeks ago he had never bought a pound of feed. In

the summer, as soon as the pasture began to dry up, he fed silage and meal. He has also used peas and oats; likewise Hungarian grass, which is excellent. His brother, M. H. Haley, who stood second in the contest, uses alfalfa as a soiling crop, and this the speaker considered probably the very best thing for the purpose.

In reply to a question, Mr. S. E. Facey, Mr. Haley's cheesemaker, said that when they ceased making butter in the spring, Mr. Haley's milk gave a per cent. of fat equal to about the average of the factory. This elicited a little sally which may be new to some of our readers, and can do no harm as a joke:

Two breeders were discussing richness of milk. The Jersey man gave a test for Holstein milk. He said that when you dropped a quarter in a pailful of it, if you could see the coin in the bottom it was from a Holstein cow, which induced the rejoinder, that if the milk didn't cover the quarter it was the mess of a Jersey.

Some of Mr. Haley's heifers gave 45 pounds of milk per day by the scales. This, as the owner truly observed, is quite a bit more than 45 pounds estimated.

THE MAKER'S PROBLEMS.

After the report of the dairy-herd competition, there was an attempt to change the programme, by interjecting a new discussion. Concurrently with the convention, a meeting of manufacturers (cheesemakers and creamery men) was being held in another hall. A similar meeting had been held in Ottawa the week before. Both had, apparently, assembled at the beck of a man who, in hopes of making some professional capital, took it upon himself to provide opportunity for the makers to agitate questions of interest to themselves that had not been arranged for of the convention programmes. The ideas were, perhaps, all right enough in themselves, but the attempt to go outside the associations to accomplish what should have been done directly through them, eventuated in the abortion which such ill-conceived effort deserved. By consent of the officers of the Western Association, a hearing was courteously granted to the deputation from the makers' meeting. They sought the support of the convention to pass a resolution asking for legislation providing for compulsory arbitration in cases where it was proposed to locate a new factory in a place where it would compete with an old one. Another suggestion they wished to make was that it be made compulsory by law for makers in cheese or butter factories to hold certificates to the effect that they had had at least three years' experience at practical factory work, or else hold a diploma from a recognized dairy school.

Figures were submitted, obtained from the makers' meeting held in Ottawa the week before, to show the unprofitableness of many factories in Eastern Ontario, and statements were made implying somewhat similar, though less general, conditions in the western portion of the Province. Discussion was called for, but at this juncture an objection was raised, that "farmers' day" should not be thus diverted to the purpose of the makers, and exception was also taken to the attempt to rush the resolution through without time for deliberation. On motion, therefore, the consideration of this topic was deferred until Thursday forenoon. Meanwhile, at the Wednesday evening session, Hon. Nelson Monteith had something to say on this and certain other agitations arising from the same quarter, in the course of which he intimated that the attempt to get a lot of regulatory legislation enacted would receive scant favor in the Cabinet.

On Thursday morning at 9 a.m. a few of the makers again met by themselves, and discussed the situation anew. From what our reporter could gather it was felt that it would be inopportune to secure an expression of opinion from the convention at this stage. One speaker pointed out that they would have to "change their line of attack," by continuing the agitation for better terms, not in the association, but among the dissatisfied makers outside. He thought, however, it might be possible to get the resolutions through in some modified appearance. This was afterwards accomplished, by working them (in emasculated form) into the report of the resolution committee, where they passed as academic motions, along with some formal votes of thanks.

During the makers' meeting it was openly hinted that some separate organization of cheesemakers was necessary, but action in this direction was deferred for a time. It was recognized that the Dairymen's Association would have more influence with Parliament than would a newly-formed Cheesemakers' Association.

COWS AND COW PROBLEMS.

Mr. C. F. Whitley, the well-known organizer of the cow-testing associations, gave some figures showing contrasts in the best and poorest cows of certain herds he has been testing. In reply to an objection, that keeping milk records takes too much time, he stated that a man who is moderately handy with scales and pencil can get all the records he wants in four minutes per month for each cow.

Someone wondered how a herdsman would distinguish his cows. Prof. Dean, of Guelph, said they use ear tags on all their cows, and every cow goes by her number. No man, he continued, can afford to keep 10, 15 or 20 cows without knowing what they're doing. The estimated average production of milk in Ontario and Quebec is only 3,000 pounds per cow per year. This could be greatly increased if every farmer would use a pure-bred sire of a dairy breed, feed his cows

well when dry, and keep cow records, to enable him to weed out the poor producers.

Prof. Dean laid heavy stress on the importance of feeding cows well when dry. The usefulness of an animal depends: 1st, on the sire and his breeding; 2nd, on the dam and her breeding; 3rd, on how the calf has been nourished while being carried by its dam.

One delegate, Mr. Gleason, doubted the necessity of individual records. He thought if we managed our herds well we would accomplish as good results without records. He wondered whether a man milking a cow himself would not know how much milk she gave. The reply was that while he might have a fair idea, it would not be accurate. Some cows' milk foams much more than others.

One man desired to know whether Prof. Dean had implied that all the dairy breeds were equally good. He kept Holsteins himself, but offered to change if the Professor would tell him something better.

Prof. Dean, replying, said that was the greatest compliment any man had ever paid his judgment. He had not said that all breeds were equal, but had avoided controversial ground. However, since the point had been raised, he would say that, in his 16 years' experience at the College, during which time he had kept five breeds most of the time, and three all the time, he had found the greatest number of profitable cows among the Holsteins. He ascribed this to the fact that 25 years ago the Holstein breeders began testing their cows, and started an Advanced Register. The other breeders have paid too much attention to fancy points, such as certain curve of the horns, and slim tails. Do we keep cows, the speaker naively asked, to grow slim tails? The other breeders are now going in for records also, especially the Canadian Ayrshire men. Breeders who do not do so will soon find difficulty in selling their bulls. The farmers of this country are prepared to pay long prices for good bulls from cows that have been tested, but they are not willing to pay money for paper pedigrees.

One Holstein cow at the College, in November gave 25.32 pounds of milk, testing 3.5% fat; in 7 days she gave 643 pounds, and in one day 96 pounds. In November and December, 61 days, her yield was nearly 5,000 pounds.

It is not sufficient to breed a good cow to a good bull. The old law, that like produces like, applies only with numerous modifications. We want stock which has producing ancestors for a long way back. Only about one heifer out of five proves really good, because most that are bred haven't the breeding back of them. Only about half of an animal's characteristics, on an average, are determined by its two parents. The previous ancestors have equal influence.

Prof. Dean would like to see a breeding station established somewhere, to work out some of these questions involved in the breeding of dairy cattle. It needs at least ten years of careful study.

ONTARIO BEST AFTER ALL.

Wednesday evening was burdened with the usual formality of addresses of welcome from the Mayor and the President of the Board of Trade. Usually these consist of the most insipid platitudes. This time both were disappointing. Mayor Judd was humorous and brief, while President White departed from a precedent, by actually saying something worth publishing. He made a strong plea for all present to do everything in their power to intercept the Westward migration. Ontario is the place where one can live as he goes along. Our environment is better every way than that in the West, but our young men are being lured thither by roseate advertising, and by the fact that many who go there do well financially. We have superior advantages to offer them in other ways, and must address ourselves to the task of presenting these. We must keep more young men on Ontario farms.

One thing that has been an injury to us is the cursed system of credit. Our farmers, yielding to the blandishments of agents, are buying too much machinery on credit (this from an implement manufacturer), and not taking care of it when they get it. If we could get down to a cash basis it would be a great saving. Credit price is always 10% higher than cash price. It is time to teach the principles of finance in the schools. There is more money for a farmer making figures than furrows. In conclusion, he said, don't forget Ontario, don't forget to boom Western Ontario, and don't forget London.

THE DAIRY EXHIBITION IDEA.

J. N. Paget, of Canboro, presented the report of a committee that had been appointed to confer with a similar committee from the Eastern Association, on the holding of a National Dairy Show. The joint committee met at Toronto Exhibition, and decided to canvass parties whose co-operation would be necessary to make the show a success. They reported finding the manufacturers of dairy machinery enthusiastic and anxious to break away from the Ontario Winter Fair at Guelph, where the fat-stock interest is predominant. Breeders of dairy stock were also interested. As to location, Toronto seemed indifferent, but Guelph and Peterboro' promised to do all in their power, the former city offering the use of the Winter Fair building, and Peterboro' expressing her willingness to erect new buildings.

Reference was made to the established dairy shows in England, New Zealand and United States. The speaker pointed out that the dairymen's conventions are going over much the same ground year after year, till their tale has become prosy, and it was thought that a great dairy exhibition might help to arouse and revive interest in the industry. [A large attend-

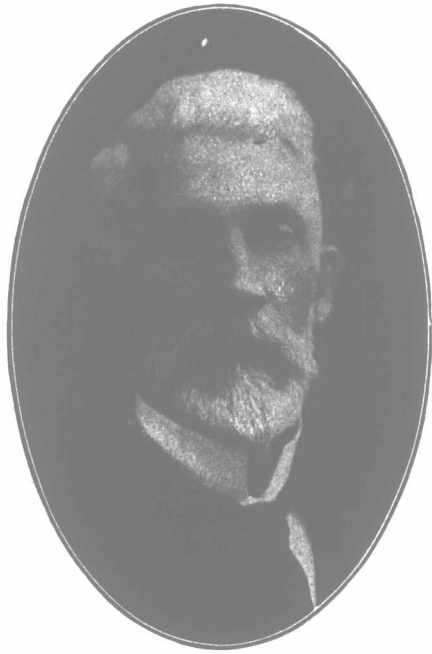
ance seemed to be taken for granted in the committee's report.]

Mr. H. B. Cowan, the second speaker, thought much good would result from getting the east and west together, and bringing the dairy stockmen in. This is the age for specialization, he said. Cheesemakers and buttermakers need to be organized, and a national dairy show would be an aid in this direction. Some little discussion ensued on certain incidental changes that might result. Chief Instructor Barr would not favor a movement looking to the abolition of the present Eastern and Western Associations, and the system of instruction as now constituted. He thought much interest could be aroused and great good accomplished with our present organization, by holding more district meetings throughout the Province, and offering a dairy-herd prize for each district. Prof. Dean could see no need for two dairymen's associations in Ontario holding conventions in which many features of the programme were always duplicated. By resolution, the report of the committee favoring the holding of a national dairy show was finally adopted.

SANITARY INSPECTOR'S REPORT.

T. J. Dillon, Sanitary Inspector for Western Ontario, reviewed his past season's work inspecting factories and farms. A good deal of his time had been spent in factories where the conditions were first-class. He thought much time could be saved if instructors, buyers and factory managers would notify the Department of Agriculture where a sanitary inspector was needed.

Geo. Neely, M.P.P., followed Mr. Dillon. He had a word to say in favor of dairy-cow records, instancing the development of the American trotter as an instance of what could be accomplished by setting up a standard of performance as a guide in breeding. Referring to the proposition advanced to make the cheese factory and creamery instructors sanitary inspectors as well, he feared if that were done their value as instructors would be about at an end. He warned against the tendency of the maker to get away from the farmer. Rather go to him instead.



J. R. Dargavel, M.P.P.

President Eastern Ontario Dairymen's Ass'n, 1907.

HON NELSON MONTEITH.

The feature of Wednesday evening's meeting was the address of the Ontario Minister of Agriculture. With admirable temper, but no uncertain meaning, he took his position firmly in opposition to the numerous push-room agitations that have been springing up in certain quarters of late, asking for all sorts of radical and regulative legislation relating to the dairy industry. The impression left on his hearers was that if fewer things had been mooted it would be easier for him to accomplish that which is really most needed, namely, the making of all the instructors sanitary inspectors.

At the outset he noted with pleasure the support which, as Minister of Agriculture, he had received from agriculturists, independent of party politics. The Government is simply the servant of the people, to spend money in the most judicious way for the betterment of the people. His Department pays out nearly half a million a year, of which the dairy industry is receiving a fairly respectable proportion—about \$59,000 last year. Every item of this expenditure has to be justified on the floor of the House. It had occurred to him when the proposition for a dairy show was being discussed, and the claims of the dairy industry advanced, that the evidence had been all on the one side. It was assumed that a national dairy show would have a large attendance and do much good, but the Minister proceeded to point out that the Ontario farmer is not a man who travels a great deal. If he comes to one winter exhibition he is doing well. For this reason it would be better to have our horse, fat-stock, dairy stock and poultry exhibitions all centralized, and held at one place and time, so that a delegate could come, make a week of it, and see it all together. Don't try

to cover too much ground, and don't attempt to hold too many shows.

Let us endeavor by other means to stir up our dairymen east and west. If the mountain won't come to Mahomet, Mahomet must go to the mountain. Much hard exertion is necessary, but farmers are thinking as never before. They are weeding out poor cows and looking after every end of their business, and steady progress is being made.

Turning to some of the numerous other ideas being exploited, he noted some of the results of the appointment last spring of two sanitary inspectors. One was that factory owners who have been obliged to go to some expense to carry out the recommendations of the inspectors are demanding that they should be protected by some means that will prevent the erection of competing factories that will cut into their business. There is also a movement for licensing the factories, and even licensing the makers. All these things would doubtless lead to wonderful possibilities. In fact, he was not sure just where it would all lead to, but it would involve compulsion anyway, and compulsion is distasteful to the majority of mankind. We have not yet accomplished all we desire by our sanitary inspection, but the system may be worth trying a little longer before we suggest a change. He had always found dairymen reasonable, and believed they would be reasonable in this. The applause with which the address was received was evidence that he had not misjudged the meeting.

THE INSTRUCTOR'S REPORT.

The report of Chief Instructor Barr was a model of brevity. The season, he said, was characterized by good prices. The instructors worked hard and to good purpose. At no time did the makers get off the track. There were scarcely any acidic cheese made—the first year since he has had charge of the work that such was the case. There were few cheese rejected, and, taking the weather into consideration, it was safe to say the makers have done better work than the year before. The fall cheese were fine. He believed it had been a good thing that the cheese had been taken from the factories promptly, though he admitted that some had been shipped altogether too green. With proper curing-rooms there would be less tendency to do this.

During the season the instructors visited 161 factories regularly, making 873 day visits and 398 calls, making a total of 1,271, or 366 more than last year. There were 2,648 curd tests made, 43,730 lactometer tests, and 2,594 Babcock tests, being an increase over last year in each case; 505 patrons were visited, 85 fewer than last year. From the above it is seen that the instructors did more testing and less visiting at the farms. They felt rather discouraged over the results of visiting patrons the year before, as in many cases their recommendations were not carried out. If the instructors were made sanitary inspectors, with power to enforce their recommendations, more good might be done by their visits.

During the year the Chief Instructor visited 41 annual and special meetings, and 21 were attended by the other instructors, making 62 in all, at which there was a total attendance of over 3,000. Like Mr. Publow, Mr. Barr finds that great good results from these visits at the annual meetings.

In repairs and new factories, \$28,750 was spent in 1906. The factory owners are improving as fast as they can, but some of them are hampered by small returns, and are failing to make ends meet.

The worst feature at our factories is the whey tanks. The whey-tank problem is difficult. Mr. Barr is inclined to recommend that wash water and slush from the floors be run off into a separate tank or drain. For whey he would have only one underground tank, and that shallow, so it may be drained. Among patrons the greatest improvement has been in the milk cans used—result, great improvement in the milk.

In November and December district meetings were held in the territory of each group of factories. At every one of these a resolution was passed, asking the Government to make all the factory instructors sanitary inspectors as well. Other live topics were the raising of the price of manufacture and the division of territory among one another, or in lieu of this some harmonious understanding regarding the returning of poor milk. At the district meetings forty-two factorymen agreed that they would make an effort to divide territory and leave one another's patrons alone. Since then Mr. Barr has received letters from 13 more factorymen approving this action.

INSTRUCTION IN CREAMERIES, 1906.

Last year there were 74 creameries in operation in Western Ontario, three more than in 1905. Fifty-three were visited regularly during the season; calls were made at eight of the others by the instructors.

Out of the 74 creameries in operation, only five can be called separator creameries, and even at these there is a small quantity of cream-gathered cream received.

Eleven others are skimming some milk, but cannot be called separator creameries, as the quantity of cream gathered is about as much as that separated at the creamery. The balance, fifty-eight, are entirely cream-gathering creameries.

In 1904 only 34 creameries were using the Babcock tester. In 1906 56 were using it. Chief Instructor Barr's opinion is that it would be a good thing for the creamery industry if it were made compulsory to use only the Babcock tester for testing cream at the creameries, as its use tends to improve the quality of the cream.

Only one creamery (Brussels) in Western Ontario—so

far as he knew the only one in Canada—has adopted the method of weighing the cream sample for the Babcock tester. The proprietor, Mr. Harris, is very much pleased with the results, in that his patrons are much better satisfied with the tests.

One creamery (Walkerton) paid a small premium to the patrons for delivering cream testing 25% and over. The result was a considerable increase in the percentage of fat, and an improvement in the quality of the cream. These things show that some of the creamery men are becoming more alive to the importance of advancement in the methods of managing their creameries.

Unfortunately, there has not been an improvement in the quality of the butter in 1906. This fact, he believed, was due to the warmer weather during the season, and also that some of the creameries are only collecting the cream twice a week. The reason given for collecting only twice a week is: they are thus able to cut down expenses, and are able to pay a little more to the patrons than their opposition.

This feature, if continued, will result in giving our butter a worse reputation for old-cream flavor than it has at present.

In looking for a reason why our butter has not as high a reputation for quality as our cheese from Western Ontario, Mr. Barr was forced to the conclusion that our creamery men have not set as high an ideal of perfection in quality, and made everything count for that end, as have the cheese men. Until our creamery managers come to some understanding with one another in regard to the question of refusing cream that is overripe and rank in flavor, there is little hope of improving the quality of our creamery butter.

There is as great a weakness in the cold storage at our creameries as in the curing-rooms at the cheese factories; many of them cannot be called cold storages, as the temperature is reported from 50 to 60 degrees in some cases. We must have storages at the creameries that will keep the butter at 40 or 45 degrees, even if it is only kept for two or three days.

Some of our buttermakers pay too little attention to finishing off the top of the packages, and when they are opened they present an untidy appearance. He believed it would be a good thing for our creamery business if the creamery men would use only one style of box for export butter, and have a distinct creamery brand on each box, so that there would be a distinct difference between a 56-pound box shipped from a creamery and 56-pound box of dairy butter shipped from a store.

Quite a number of creameries are using coolers for cooling the cream as it is delivered at the creamery, and they are giving the best of satisfaction. There is no apparatus in the creamery equipment that will give better results than a cooler and plenty of water to pump through it. A number of creameries are using pasteurizers, and there is no question they assist greatly in securing a uniform quality of butter, but to get the best results from pasteurizing the cream must test at least 25% fat.

Our buttermakers are adopting more uniform methods in churning and washing the butter, with the result that they are getting larger returns from the cream. Mottled butter seems to be the buttermaker's greatest difficulty in the making of the butter, and it is difficult to suggest a remedy. Greater care should be taken in washing the butter, and in distributing the salt than many of our buttermakers exercise.

Although it seems slow work getting the quality of our western butter improved, there is progress being made. The patrons are becoming better acquainted with the requirements necessary to produce good cream, our makers are adopting better methods in the creameries, and our creameries are being better equipped.

What we need to-day is a determination on the part of our creamery men to use every means available to make our Western Ontario butter second to none.

WANT INSTRUCTORS MADE SANITARY INSPECTORS.

G. A. Putnam, Superintendent of Farmers' Institutes and Director of Dairy Instruction, delivered a spicy address in introducing the report of the joint committee of the Eastern and Western Associations, appointed to consider the advisability of recommending an amendment to the Provincial dairy law. The first class concerned in our dairy industry, he said, is the patrons. While most of these are doing their part well, a few of them—say five per cent.—are surprisingly negligent, and probably ten to twenty per cent. need brushing up. It is the duty of the other patrons, of the makers, and of the instructors to help brush these up. What we must have at the factories is clean and cool milk. This is hard to get. The conditions of milk supply are unfavorable to begin with. What other food product would we want to have set under a cow, or what would we tolerate to have treated as milk is? Would any housewife let the hired man come in from the stables in his overalls, and without washing his hands help her to mix biscuits or bread? Yet there would be less injury result than from milking with dirty hands, because the dirt that gets into milk sets up a more rapid development of bacteria than would be the case in biscuits or bread. But if you ask the hired man who has been loading manure to wash his hands before milking he'll say, "What's the use? I'll have to wash them again after I'm through."

Last year, to improve conditions in factory and on farm, two sanitary inspectors were at work in the Province. Their work and that of the instructors was kept entirely distinct and separate. But the two inspectors were unable to cover the ground or accomplish as much as was desired. The committee, therefore,

recommended that a new plan be adopted, dividing the Province into 38 districts of 35 or 36 factories each, giving each instructor one group, and giving him the same authority as now vested in the two sanitary inspectors. A uniform fee of \$12.00 would be charged for the services of the instructor-inspectors. This would make up \$16,000 to apply on the total cost of the work, estimated at \$42,700. Under the existing plan a similar fee is charged for the services of the instructors, and most of the factories employ one, but the few who need it worst of all do not.

In discussion, R. Gleason, of Medina, thought if we could now compel every manufacturer to make for just so much per cwt., and bind every farmer to supply just so much milk per 100 acres, the thing would be complete.

Further discussion revealed considerable confusion in the mind of the audience regarding the scope of the proposition. Several were inclined to associate it with the two requests introduced by the makers' deputation on the previous afternoon. J. N. Paget, of Canboro, explained that the scheme outlined by Mr. Putnam was not designed primarily in the interest of the makers. It was chiefly to protect and benefit those patrons who are doing their duty. Sour or tainted milk, resulting from lack of cleanliness on the farms, reduces sometimes by as much as \$5 worth the amount of cheese made from a vat of milk into which it has been introduced. It also depreciates the quality of the cheese. The poor milk from a few patrons results in a smaller make and poorer quality of goods, thus robbing the other patrons. Is it fair?

Chief Instructor Barr strongly supported the motion. His staff of instructors have done all in their power to improve the business; they have the standard of manufacture raised high. Much of the raw material, too, comes in good condition, but some does not. His instructors have tried visiting and persuading careless patrons, in many cases only to be laughed at. He did not see how the instructors could do very much more without some authority in dealing with the few patrons causing the loss. Much is made in some quarters of skimming and watering milk, but sourness (sourness) causes far more trouble and loss than all the skimming and watering that has ever been done. In reply to a question of Mr. Wagg, of Manitoulin, Mr. Putnam said he thought if the proposed recommendations were made law, the creameries and factories in the far north or out-of-the-way localities would receive some special consideration. He also thought that if the law were passed as suggested, in three years' time there would be such radical improvement that the number of instructor-inspectors could be reduced by one-half.

By resolution the committee's recommendations were almost unanimously approved.

MOISTURE IN BUTTER.

Prof. R. Harcourt, O. A. C., Guelph, presented the results of his summer's work on the moisture of butter. Last spring he sent out a circular, asking makers to send him samples of butter for determination of its moisture content, on condition that a statement accompany the same, explaining how the butter was made. Many makers were anxious to try the effect of manipulation, to see how much they could increase the moisture content thereby; 262 samples were received. In all of these the moisture was determined, and in some the curd and salt also. The average percentage of moisture in the 262 samples was 14.1, the range being from 10.3 to 19.92. Only 18 samples exceeded the legal standard of 16%. The curd content varied from 4% to .85%, which is lower than is usual in butter.

Tests for salt revealed that after ignoring all samples that were saltless, or nearly so, the percentage varied from .6% to 4.04%.

They failed to establish any relationship between the per cent. of moisture and the per cent. of curd, or the per cent. of moisture and the per cent. of salt.

They also analyzed samples of the butter sent to Guelph in the creamery-scoring contest. Out of 113 samples the highest moisture content was 15.8%, and the lowest 9.04%. The curd varied from .1% to .85%; the salt from .6% to 5.98%. Here, again, they failed to find any relationship between the per cent. of moisture and the per cent. of curd or salt, and no certain relation between the percentage of moisture and the score given the butter. If anything, he thought, possibly there was a tendency to show that the butter with the higher moisture content got slightly the lower score at the third scoring, three months after being made. He hoped to secure fuller data, on which conclusions might be based.

Prof. Harcourt explained that there are three different ways of determining the moisture in butter. The old way is to take 2 grams of butter and heat in an oven till constant in weight. This is accurate but slow. Another method is to weigh out a larger quantity of butter and heat over the flame of an alcohol lamp. Repeated tests with this method gave results varying not over one-tenth of one per cent. A demonstration of this method was made before the audience. The third method, recommended by Prof. Gray, of Washington, he intends to try as soon as possible.

THE COLLEGE DAIRY DEPARTMENT.

Prof. H. H. Dean, O. A. C., Guelph, was down for an address covering the results of his work on the subjoined subject. By way of preface, he replied to an attack that had been made last year on the business management of the College Dairy Department. During the past year, besides teaching some 250 students, and carrying on experiments in all lines of creamery and factory work, the revenue from the Department came

within \$1,300 of paying expenses. Except for \$850 spent in purchasing live stock, and chargeable to capital account, and \$500 estimated expense connected with the milking machine, it might be said that the department last year paid its way, doing all the teaching and all the other experimental work to the good. During the past 16 years, during which he has had charge of the department, the volume of business has totalled \$130,000, and only \$600 has been lost by bad debts. He never objected to fair criticism, but sometimes he was reminded of the termagant wife, who, after nagging her husband into the grave, erected over his head an expensive monument, on which she had chiseled the very suitable inscription: "Rest in peace till we meet again."

EXPERIMENTAL SHIPMENTS OF BUTTER TO ENGLAND.

Coming to his subject, Prof. Dean, after outlining the scope of the experiments with butter shipped to England, summarized them as follows:

The highest scoring butter (scored by merchants in England) was made from sweet cream without culture or starter, run directly from the cooler into the churn. Ordinary boxax, costing 6 cents a pound, gave as good results in every way as the commercial preservatives, costing 10, 12 or 15 cents a pound.

Butter shipped in print form was somewhat rancid on arrival, having what the merchants called a "sidey" flavor. His conclusion was that it is not possible to send print butter and have it arrive in first-class condition. The merchants on the other side prefer to make their own prints.

Butter from cream delivered by farmers, some of whom have separators, and some of whom use the deep-setting method, gave practically as good results as butter from cream separated at the College creamery.

Returns from nine shipments, comprising 8,128 pounds of butter, averaged a net price of 20.2 cents per pound. On the home market they have sold no butter the past season for less than 21 cents. Of course, the College dairy has a better home market to cater to than the average Ontario creamery would find.

It is a mistake to think that sweet cream cannot be churned. In the College creamery it had been churned in less time than ripened cream, and at 1 degree lower temperature.

Saltless butter scored higher than salted in almost every case.

SHIPPING CHEESE GREEN.

[Dairy Commissioner Ruddick's address Thursday afternoon on Cold Storage and Transportation for Butter will be published later on.]

In an address on cool-curing of cheese, Thursday evening, Mr. Ruddick said that the value of the cool-curing idea is now unquestioned. The chief point of discussion is the practical construction of cool-curing rooms. For information on this subject, he referred his auditors to his last annual report, free for the asking.

In conclusion, he repeated his advice of the week before, that cheese should not be shipped green, arguing that patrons and factorymen have the situation in their own hands.

Austin Miller, of Mt. Elgin, wondered how he, as a patron, was going to prevent his factory from shipping its cheese green. He wondered why, if the Government were going to look after the sanitary conditions on the farms and factories, should they not also undertake to regulate the buyers, preventing them from sending uncured cheese to the Old Country. Mr. Ruddick, however, did not think it was a matter calling for regulation by law. Just how the general body of patrons and makers are going to be persuaded of the necessity of not shipping green cheese, no one volunteered to show.

EDUCATION BETTER THAN COMPULSION.

Prof. C. C. James, Ontario's Deputy-Minister of Agriculture, compared the amount of money expended by Ontario for agricultural purposes ten years ago with that appropriated now. In 1896 the amount was \$191,000; last year it was \$377,000, or nearly double. In 1896 the amount devoted to dairying was \$22,000; last year it exceeded \$50,000. The appropriations for dairying are thus increasing at a faster rate than the total for agricultural purposes. This year there would be some further advance, but he could not say how much.

With his usual clear analysis, he emphasized the desirability of doing as much as we possibly could by education, and as little as we could get along with by law. It may be necessary in the future, however, to lay down some more stringent laws than in the past. Alluding to an agitation to compel all makers to have certificates of experience or dairy-school training, he said it would not be long till every maker would be obliged to have such a certificate as much as a doctor, but that did not mean that the change should be compelled by law.

Turning to the great problem of how to improve the milk supply, he said the brightest ray of hope had struck him last month, when he saw the large and enthusiastic Women's Institute convention at Guelph. If we can get the wives, mothers and sisters interested we'll get pure milk. The Women's Institute movement is growing wonderfully all over the Province, and prospects for influence through this channel are bright. We are now in a fair way of getting at the problem through the homes, which is the only rational way. If the women say, we must have clean milk, we'll have it. "The women," said he, "can do what you men

can't do." He had appealed to the Women's Institute at Guelph to help get the underlying principles of agriculture taught in the schools. In the school and the home is hope for great improvement in the raw material supplied to our creameries and cheese factories.

RESOLUTIONS ADOPTED.

The following resolutions were adopted on report of the resolution committee:

That it is desirable that the Department of Agriculture shall take such steps as may be necessary to have a thorough investigation of the matter of mold on butter, made by a competent dairy chemist and bacteriologist, who shall, if necessary, devote his whole time to the work.

Whereas, petitions signed by several hundred cheese and butter makers have been presented to this convention, praying for the establishment of a standard of qualification for makers, and asking that, after some date to be set, no maker shall be allowed to take charge of a factory unless he has had at least three years' experience in a factory, or holds a diploma from a dairy school; be it resolved, that in the opinion of this convention it is desirable that our cheese and butter makers should be as well qualified as possible, and, therefore, we endorse the object of the petitioners, and request the Ontario Department of Agriculture to give this matter their early and careful consideration.

Resolved that, whereas it has been shown that a considerable proportion of the factories and creameries of Ontario, but particularly in Eastern Ontario, have been located on sites not providing suitable sanitary facilities; and, whereas, the Province of Saskatchewan already has legislated along the line to be proposed; that in the opinion of this convention the time has come when greater care should be exercised in Ontario in connection with the erection of cheese factories and creameries, and we should recommend that steps be taken to prevent the building of additional factories until their sites and plans have been submitted to the Department of Agriculture for approval, and until it has been shown to the satisfaction of the Department, or of some competent board appointed by the Government, that the erection of the proposed factory is in the best interests of the section where it is proposed to build.

That this convention place on record its acknowledgment of the great value of the illustration which the cool-curing rooms established by the Dominion Department of Agriculture have afforded, and the impetus which, through their operations, has been given to a most important movement for the betterment of the Canadian cheese industry, viz., the cool curing of cheese.

THE DAIRY EXHIBITION.

The exhibition of butter and cheese aroused considerable interest as usual. The highest scoring cheese was a September white, made by J. E. Stedelbauer, of Fordwich. In commenting on the results, Chief Instructor Barr explained that Mr. Stedelbauer was the cleanest man he had seen last summer. His facilities were not by any means the best, but pains and cleanliness produced the results: Following are the awards:

Class 1, Sec. 1—September white cheese.—1, J. E. Stedelbauer, Fordwich, total score, 95.82; 2, W. S. Stocks, Britton, 94.82; 3, Jno. Cuthbertson, Sebringville, 94.31; 4, W. Hamilton, Listowel, 94.49.

Class 1, Sec. 2—September colored cheese.—1, W. Hamilton, Listowel, 94.82; 2, R. A. Thompson, Atwood, 93.99; 3, Geo. Cameron, Lynedoch, 93.81; 4, Arthur Anderson, Scottsville, 93.49.

Class 2, Sec. 1—October white cheese.—1, J. E. Stedelbauer, Fordwich, 96.66; 2, G. M. McKenzie, Ingersoll, 95.66; 3, Donald Menzies, Molesworth (tie), 95.15; 3, Mary Morrison, Newry (tie), 95.15.

Class 2, Sec. 2—October colored cheese.—1, B. A. Holland, Clear Creek, 95.49; 2, Jas. Ross, Cotswold (tie), 94.32; 2, G. M. McKenzie, Ingersoll (tie), 94.32; 4, G. R. Stone, Currie's Crossing, 94.31.

Class 3, Sec. 1—56-lb. box creamery butter.—1, W. A. Bothwell, Hickson, 96.82; 2, R. A. Thompson, Atwood, 95.49; 3, E. M. Johnston, Innerkip, 94.14; 4, G. M. McKenzie, Ingersoll, 93.99.

Class 3, Sec. 2—20 one-pound prints, creamery butter.—1, W. A. Bothwell, Hickson, 96.15; 2, W. K. McLeod, Vanneck, 94.49; 3, G. M. McKenzie, Ingersoll, 94.32; 4, Jno. Cuthbertson, Sebringville, 93.99.

SPECIAL PRIZES.

One case Hansen's rennet extract, by the Ballantyne Dairy Supply Co., to the cheesemaker scoring the highest number of points on September white cheese—Class 1, Sec. 1—J. E. Stedelbauer, Fordwich.

One case Hansen's cheese color, by C. H. Slawson & Co., to the cheesemaker scoring the highest number of points on September colored cheese—Class 1, Sec. 2—W. Hamilton, Listowel.

One case Hansen's rennet extract, by C. H. Slawson & Co., to the cheesemaker scoring the highest number of points on October white cheese—Class 2, Sec. 1—J. E. Stedelbauer, Fordwich.

One case Hansen's cheese color, by the Ballantyne Dairy Supply Co., to the cheesemaker scoring the highest number of points on October colored cheese—Class 2, Sec. 2—B. A. Holland, Clear Creek.

Five dollars in cash, by the J. B. Ford Co., to the cheesemaker who is a regular user of Wyandotte Dairy-men's Cleaner and Cleanser, having the best finished cheese on exhibition—G. M. McKenzie, Ingersoll.

Five dollars in cash, by the J. B. Ford Co., to the buttermaker who is a regular user of Wyandotte Dairy-men's Cleaner and Cleanser, having the neatest and

most attractive exhibit of butter—G. M. McKenzie, Ingersoll.

The choice of a handsome gold medal; a lady's or gentleman's gold watch and \$5.00 in cash, total value \$20.00, to the buttermaker securing the highest score in butter in Class 3, colored with Alderney butter color—W. A. Bothwell, Hickson.

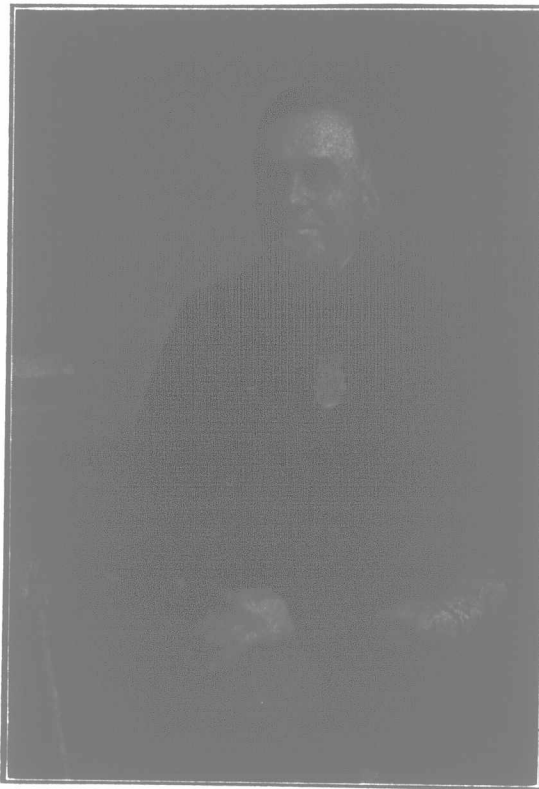
Five dollars in cash, to the buttermaker securing the second highest score on butter in Class 3, colored with Alderney butter color—R. A. Thompson, Atwood.

CHEESE-SCORING CONTEST.

A feature of the convention was a cheese-scoring contest, held in the City Hall. Forty-six men entered. A cheese was taken from the exhibition and the judges' score noted and removed. Each competitor then scored the cheese for flavor, texture, color and finish. They were rated according to the closeness with which they approached the judges' score on each particular point. For every point that a competitor was out, whether too high or too low, on color he was cut 4 points on his work; for every point he was high or low on texture he was cut 3 points, and for every point he was astray on color he lost a point and a half on his standing. The best judging was done by Jos. Cleland, of Listowel, whose total score tallied very closely with that of the judges. He was, however, half a point low on texture and a third of a point high on color, and was, therefore, cut 2 points on his work. The second prize was won by F. A. Thompson, of Bennington, whose total was the same as Mr. Cleland's. But he was half a point low on flavor, half a point high on texture, and sixteen-hundredths of a point low on color. His work was, therefore, cut 3.74 points. Both men agreed with the official judge in allowing the full 10 points for flavor.

OFFICERS FOR 1907.

President, John McQuaker, Owen Sound; Vice-Presidents, John Brodie, Ingersoll; J. J. Parsons, Jarvis; John Scott, Exeter. Directors—J. B. Smith, Alton; Thos. Ballantyne, Jr., Stratford; D. A. Dempsey, Stratford; J. N. Paget, Canboro; Geo. A. Boyes, Putnam; Samuel Wallace, Burgessville; W. Waddell, Strathroy. Representatives to the Western Fair—P. Boyes and I. W. Steinhoff. Representative to the Canadian National Exhibition, A. F. McLaren, Stratford. Auditors—J. A. Nelles and J. C. Hegler.



The Late Peter Arkell.

Death of Peter Arkell.

With sincere regret we announce the death of Mr. Peter Arkell, of Teeswater, Ont., widely known to "The Farmer's Advocate" readers as one of the most successful importers and breeders of Oxford Down sheep. Mr. Arkell, who had retired from active business life, being in his 69th year, after visiting the Winter Fair at Guelph in December, was visiting friends in the vicinity of the city, when he was stricken with pneumonia, and died in the General Hospital there on Friday, January 4th. Mr. Arkell was born in November, 1838, on his father's farm near Guelph, and received his early education at the public school and the grammar school at Rockwood. In 1865 he removed to Bruce County, and settled on a farm near the village of Teeswater, later known as Summer Hill Stock Farm. In 1868 he founded a herd of Shorthorn cattle, and a flock of Cotswold sheep, on selections from the herd and flock of his father, then a leading breeder in his district. In 1879 the Shorthorns and Cotswolds were sold out, Oxford Down sheep being taken up as a specialty, and in the same year he imported fifty head, among the first of that breed to be brought to America, on which foundation he built up one of the best flocks on the continent, selections from which have gone to every Province in the Dominion, and to many of the States of the neighboring country. Two years ago he

retired from active life, leaving the business to his sons, who are carrying it on under the firm name of Peter Arkell & Sons. His life partner died nine years ago, and he is survived by six sons and one daughter. Of a quiet and unassuming disposition, Mr. Arkell was a man of sterling character and good judgment, and was highly esteemed by those who knew him best as an estimable neighbor and an enterprising citizen. He was a constant reader of "The Farmer's Advocate" since it was founded, forty years ago.

Forward work at Fruit Stations.

On the 7th of January an important meeting of the Board of Control was held at the Parliament Buildings, Toronto. There were present the chairman, Mr. G. C. Creelman, President of the O. A. C., Guelph; H. L. Hutt, Professor of Horticulture, O. A. C., Guelph; P. W. Hodgetts, Secretary of the Ontario Fruit-growers' Association; L. Woolverton, Secretary of the Board of Control; and Messrs. A. M. Smith, Elmer Lick, and W. T. Macoun, Horticulturist, of the Central Experimental Station, Ottawa, representatives of the Ontario Fruit-growers' Association.

The financial report showed that economy had been exercised in the management, and that large returns for the moderate expenses were gained for the public.

The reports of the experimenters were read and criticised, and the Secretary ordered to prepare them for publication. Many of them contained matter of unusual value; for example, Mr. Chas. Young, of Algoma, gave a list of varieties which are most valuable in sections further south, but proved worthless on St. Joseph's Island, as, for example, Spy, King, Baldwin and Greening; and gave the following list of varieties of apples which he had proved valuable in his district, viz.: Yellow Transparent, Charlamoff, White and Red Astrachan, Duchess, Oriel, Basil the Great, Alexander, Wolf River, North Star, St. Lawrence, Wealthy, Gideon, McIntosh.

"The want of a so-called winter apple," he adds, "is not so great a want in Algoma as it might appear to those in more favored districts, as will appear when I say that on the 26th day of March, 1906, we finished the last barrel of Alexanders, in perfect condition for dessert, and of a finer texture and better quality than those grown in the southern sections."

The Secretary was ordered to send some new and promising fruits to the various stations for testing, especially to certain persons in the Temiskaming district who have applied for them, promising an annual report in return.

Mr. P. W. Hodgetts reported having made an educational exhibit at the Industrial Exhibition, Toronto, as directed by this board; and the Secretary, a large exhibit of varieties of apples from all the stations at the Fruit, Flower and Honey Show.

A letter was read by the Secretary from Mr. E. E. Adams, Leamington, accepting the appointment as experimenter in vegetables in Essex. The Board ordered the Secretary to write Mr. Adams, advising certain lines of work in the interest of vegetable-growers; and to write Mr. Hillborn, directing experiments in using certain varieties of plum stock upon which to bud the peach, and thus enable it to withstand the severe root freezing, which has destroyed the Essex peach orchards, first in 1899 and then again in 1904. The varieties of plum stock advised were Myrobalan, St. Julian and Americana. The Secretary was ordered to arrange for the propagation of the peach on these stocks, as they are not at present being used by nurserymen.

Valuable reports were handed in by W. T. Macoun, of the C. E. F., Ottawa, and by Prof. Hutt, of the O. A. C., Guelph, all of which will appear in the annual report of 1906.

Senator Beith.

Stockmen and farmers generally throughout Canada, whatever may be their views of the usefulness or otherwise of the "Upper Chamber" at Ottawa, or whatever their party proclivities, will, we are confident, view with approval the appointment to the Senate of Mr. Robert Beith, of Bowmanville, Ontario, one of the foremost importers and breeders of high-class heavy draft and carriage horses, an enterprise which, perhaps, no one man in the Dominion has done more to further on sound lines and by commendable business methods. Popular with stockmen, and familiar with the needs of the farmers, they will have in Senator Beith a vigilant champion, whose judgment and counsel in the consideration of legislation affecting their interests should prove essentially helpful in the new sphere to which he has been called, and we are sure we voice the sentiments of the farming community in wishing him a long and successful career in that capacity.

W. Doherty's Sale.

Mr. W. Doherty's sale of Shorthorns, at Clinton, Ont., on January 15th, attracted a good attendance of breeders and farmers from many sections of the Province, and was considered fairly satisfactory, though some excellent bargains were secured. The five-year-old imported bull, Pride of Scotland, fell to the bid of John Watt & Sons, Salem, Ont., at \$350, the highest price of the day, and was considered a good bargain, as he is a bull of fine type and quality, and richly bred. The Roan Lady cow, Orange Blossom 2nd (imp.), a roan six-year-old cow, was the highest-priced female, going to James Lemon, Walter's Falls, Ont., at \$340. The full report has not reached us before going to press.

Ed W. Robinson's Sale.

Handicapped by stormy weather, necessitating the holding of the sale on a barn floor where room was limited and light quite insufficient, the sale of Mr. Ed. W. Robinson's Shorthorns, at Markham, on January 10th, could hardly be called a success.

COWS AND HEIFERS.

Table listing various cow and heifer breeds and their owners, such as Broadhocks Rose, '03; W. J. Thompson, Mitchell, \$300.

BULLS.

Table listing various bull breeds and their owners, such as Royal Champion (imp.), '02; Geo. Amos & Son, \$225.

The Government and the Hog Trade.

A deputation, representing the Pork-packers' Association, have, it is reported, waited upon Hon. Nelson Monteith, asking the Ontario Government to make arrangements for a regular series of pure-bred swine sales.

suspicion of favoritism, and their methods of conducting subsidized sales have been open to the charge of unfair competition with private enterprise.

Fruit-growers Discuss Tariff Matters.

A largely-attended mass meeting of the fruit-growers of the Niagara District, held at Grimsby, January 18th, condemned the action of the directors of the Ontario Fruit-growers' Association.

was discussed, and a somewhat different decision reached. It was pointed out that the directors of the Ontario association had merely acceded to the request of the Michigan association to consider the matter.

The feeling of the meeting was expressed in the following resolution: "That this association wishes to place itself on record as being in harmony with the Ontario association in regard to meeting the Michigan growers."

Breed Society Annual Meetings.

- Dominion Cattle Breeders' Association—Palmer House, Toronto; Tuesday, February 5th, 10 a.m.
Dominion Sheep Breeders' Association—Palmer House, Toronto; Tuesday, February 5th, 2 p.m.

Free Corn Still.

Parliament, during the Tariff Bill debate, rejected a proposal to strike American corn off the free list, where it has been for several years, to the decided advantage of live-stock husbandry.

QUESTIONS AND ANSWERS. Miscellaneous.

SHIPPING RATES ON BUTTER.

Please give in "Questions and Answers" what it costs to ship butter from Kerwood to Ingersoll? G. A. H.

RENTS AND PROFITS OF LAND.

My father died when I was seven years old. He willed me one hundred acres of land. My mother married when I was eight years old.

A SUBSCRIBER.

Ans.—In the absence of an agreement for same, you cannot legally collect any wages from your mother, but you can call upon her to account to you for the rents and profits of the farm from the time of her marriage to your step-father.

Contents of this Issue.

ILLUSTRATIONS.

Table listing illustrations such as Pomona, Ida of Dalmeiy, Shearing Southdown Wether, etc.

EDITORIAL.

Table listing editorial content such as The Breed Society Meetings, Record of Performance for Shorthorns, etc.

HORSES.

Table listing horse-related content such as Scratches or Cracked Heels, Digestive Organs of the Horse, etc.

LIVE STOCK.

Table listing live stock content such as What Shall I Do on My Farm?, Lump Jaw in Cattle, etc.

THE FARM.

Table listing farm-related content such as A Good Stone Basement Stable, For a Dry Basement, etc.

GARDEN AND ORCHARD.

Table listing garden and orchard content such as Sooty Fungus on Apples, A Season's Experience in Fruit, etc.

POULTRY.

Table listing poultry content such as Successful Poultry-raising in 1906.

THE FARM BULLETIN.

Table listing farm bulletin content such as Watch for the Index, Shorthorn Sale, etc.

MARKETS.

Table listing market content such as HOME MAGAZINE.

QUESTIONS AND ANSWERS. Veterinary.

Table listing veterinary questions and answers such as Lice—weak eyes, Rents and profits of land, etc.

GOSSIP.

Captain Donald Milloy, known to many of our readers as a breeder of Shorthorn cattle, died, on January 12th, at his farm, Oak Park, near Paris, Ont.

I pray you, O, excellent wife, not to cumber yourself and me to get a rich dinner for this man or this woman, who have alighted at our gate, nor a bed chamber made ready at too great a cost.

For the Small Investor

No plan of investment offers better inducements than a SAVINGS ACCOUNT in the BANK OF TORONTO.

NOTE THESE ADVANTAGES

You can add small sums to your investment at any time, and every dollar added begins to earn more.

A sure profit in compound interest on your investment.

Certainty that the sums invested can be withdrawn with interest at any time.

BANK OF TORONTO
Head Office, TORONTO, CAN.

Capital - - - \$ 4,000,000
Reserve - - - 4,500,000

MARKETS.

Toronto. LIVE STOCK.

Receipts of live stock during the past week were large at both markets. The quality of fat cattle was not as good as could be desired, too many both butchers and exporters being offered that ought to have been left in the stable for a month or six weeks longer. Trade was brisk, especially for the best grades.

Exporters.—Prices ranged from \$4.60 to \$5.20, the bulk selling at \$4.85 to \$5.10 per cwt.; bulls sold at \$3.60 to \$4.25.

Butchers.—Prime picked lots of steers and heifers, 1,050 to 1,150 lbs. each, sold at \$4.60 to \$5 per cwt.; loads of good, \$4.25 to \$4.50; medium loads sold at \$3.90 to \$4.15; common, \$3.50 to \$3.75; cows, \$2.50 to \$3.75; canners, \$1 to \$2.25 per cwt.

Feeders and Stockers.—Not much doing, few of either being offered. Steers, 1,000 to 1,150 lbs. each, would bring from \$3.75 to \$4; stockers, \$2.75 to \$3.25 per cwt.

Milkers and Springers.—Several dealers from Montreal being on the market caused a brisk demand for good to choice milkers and forward springers. Prices ranged from \$45 to \$55 each, with a few of extra-quality at \$60. Common to medium cows sold at \$30 to \$37.50.

Veal Calves.—There are too many of inferior quality, and few prime well-fed calves being marketed. Prices ranged from \$3.50 to \$7 per cwt., with a brisk market for the best quality.

Sheep and Lambs.—Receipts of sheep and lambs have not been equal to the demand. All offered sold readily at higher prices all round. Export ewes sold at \$5 to \$5.25 per cwt.; culs and bucks, \$3.50 to \$4 per cwt.; lambs at \$6 to \$7.25 per cwt.

Hogs.—Notwithstanding the high prices, receipts of hogs have not been large. Drivers report finished hogs as being scarce in the country. Prices, f. o. b. cars at country points, are reported by drivers at \$6.60. At the City and Junction, dealers report \$6.90 for selects, and \$6.65 for lights and fats.

Horses.—The horse market is reported by the dealers as being exceptionally good for so early in the season, especially for heavy workers of good quality. The Toronto sales stables have been besieged with buyers from all over the Dominion during the past week. Nearly 200 horses, generally of good quality, were offered and sold at the Repository alone at one sale. Burns & Sheppard report prices as follows: Single roadsters, \$125 to \$145; single cobs and carriage horses, \$125 to \$150; matched pairs, carriage horses, \$250 to \$400; delivery horses, \$125 to \$170; general-purpose and express horses, \$125 to \$175; draft horses, \$150 to \$195; second-hand workers, \$50 to \$80; second-hand drivers, \$50 to \$95.

BREADSTUFFS.

Grain.—Wheat—No. 2 white, 70c.; No. 2, mixed, 69c.; No. 2 red, 69c. Manitoba No. 1 Hard, 81c.; No. 1 Northern, 80c.; No. 2, 79c.

Corn.—No. 2 American, old, 55½c. to 56c., at Toronto; No. 3 yellow, 49½c. to 50c.

Oats.—No. 2 white, 36½c.; No. 2, mixed, sellers asking 38c. at Toronto.

Rye.—70c.

Barley.—No. 2, 50c. bid.

Peas.—No. 2, 79c. bid, sellers asking 80c.

Buckwheat.—53c. bid.

Bran.—City mills quote bran at \$20 to \$21.

Shorts.—\$22 to \$23 per ton.

Flour.—Manitoba patent, \$3.75, track, at Toronto; Ontario, 90 per cent. patents, \$2.62 bid for export; Manitoba special brands, \$4.50; strong bakers, \$4.

COUNTRY PRODUCE.

Butter.—Not as much activity on the market. Prices steady. Creamery prints, 27c. to 28c.; creamery boxes, 25c. to 26c.; dairy pound rolls, 24c. to 25c.; tubs, 22c. to 23c.; bakers' tub, 17c. to 18c.

Eggs.—New-laid, 30c.; cold-storage, 22c. to 23c.

Cheese.—Markets firm. Large, 14c.; twins, 14c. to 14½c.

Honey.—Market steady to firm at 12c. for strained; dozen sections of comb, \$1.75 to \$2.60.

Evaporated apples, 8c. to 9c. per lb.

Potatoes.—Ontario car lots, at Toronto, 65c. to 70c.; New Brunswick Delawares, 75c. per bag, by the car lot, on track, at Toronto.

Poultry.—Market firm, owing to light receipts. Turkeys, 14c. to 15c.; geese, 10c. to 11c.; ducks, 10c. to 12c.; chickens, 10c. to 12c.; old fowl, 8c. to 9c.

Hay.—Baled hay—Supplies are about equal to the demand. Prices are inclined to be easy at \$11.50 to \$12 for No. 1 timothy, and \$9 to \$10 for No. 2, in car lots, at Toronto.

Straw.—Car lots are worth \$6 to \$6.50, on track, at Toronto.

Beans.—Hand-picked, \$1.50; primes, \$1.25 to \$1.30 per bushel.

SEEDS.

Wm. Rennie & Sons report the market as being steady at following prices, at country points. Alsike, fancy, \$7; alsike, No. 1, \$6 to \$6.25; alsike, No. 2, \$5.75 to \$5.85; alsike, No. 3, \$4.65 to \$5.10; red clover, No. 1, \$8 to \$8.25; red, No. 2, \$7 to \$7.25; timothy, No. 1, \$1.50 to \$1.80; timothy, No. 2, \$1.20 to \$1.40.

HIDES.

E. T. Carter & Co., 85 Front St., have been paying the following prices: Inspected hides, No. 1 steers and cows, 11c.; No. 2 steers and cows, 10c.; country hides, cured, 9½c. to 10c.; country hides, green, 8½c. to 9c.; calf skins, No. 1, city, 12c.; calf skins, No. 1, country, 11c.; lamb skins, each, \$1.15 to \$1.20; horse hides, \$3.50 to \$3.75; horse hair, No. 1, per lb., 30c. to 32c.; tallow, per lb., 5½c. to 5¾c.

Montreal.

Live Stock.—The market for Canadian cattle in Great Britain is in good shape. Demand excellent, and prices hold firm for cattle. On the local market, prices have been rather better. As high as 5½c. was paid in a few instances, the great bulk of the choice stock selling at 4½c. to 5c., however. Fine stock ranged around 4½c., and good at 4c. to 4½c., while medium ranged from 3½c. to 3¾c., and common from 2½c. to 3c. Sheep sold at better prices, being 4c. to 4½c., and lambs were in good demand at 5½c. to 6c., and, perhaps, 4c. in some cases.

Calves were firm, and some fine stock was offered. Purchases were made as high as \$12 and \$15 each, for a few choice animals, but for the most part \$6 to \$8, or \$10, represented a liberal range. This means about 6c. per lb. for best. The feature of the markets was the strength in the price of live hogs, as well as dressed. They have now scored a further advance of 15c. to 25c. per 160 lbs., buyers being compelled to pay 7½c. for the select stock, off cars.

Horses.—Heavy-draft horses, weighing from 1,500 to 1,700 lbs., sell at \$250 to \$300 each; light-draft, 1,400 to 1,500, \$200 to \$250; express, 1,100 to 1,300 lbs., \$150 to \$200; common drivers, \$100 to \$150; old, broken-down animals, \$50 to \$100, and choice driving or saddle animals, \$350 to \$500 each.

Live Hogs and Provisions.—The market for dressed hogs has advanced 4c. in sympathy with the live-hog situation, and

prices are now 9½c. to 10c. per lb. for choicest abattoir-killed hogs. Country-dressed are scarce, but prices are firm at 8½c. to 9c. per lb., some demanding ¼c. more than the figures mentioned. Demand for provisions of various kinds is fair. Extra large hams are 13c.; large, 13½c.; medium, 14c., and extra small, 14½c. Best bacon is 15c., cheaper grades being 13c. to 14c.; barrelled pork, \$20 to \$23.50.

Poultry.—The general trade has to a very considerable extent lost interest in this market since cleaning up stocks after the holidays. Prices for turkeys have declined greatly, and one firm has been making purchases, laid down here, at 11½c. and 12c. for choicest. Choice chickens sell here at 10c. to 11c.; geese, 9c. to 10c.; fowl, 7c. to 8c.

Cheese.—The market has shown an improvement during the past few days, and a sale of 1,000 boxes of Septembers at 13½c. over the cable is reported, this being the best yet heard of. Some was sold a few days ago at ¼c. less. Octobers cannot any longer be had at less than 13c.

Butter.—The market has shown easiness for some time past, and of late sales have been made at 24½c. to 25½c., according to quality, the latter figure being for small lots. Dairy rolls are quoted at 22½c. to 23c., and tubs at 22c.

Eggs.—The trade seems confident that all the eggs in stock will be needed very shortly, and, as a consequence, prices are holding pretty firm. No. 1 stock is 22c., and pickled are 21½c., some, however, demanding 22c. for them.

Potatoes.—At present, dealers are offering about 68c. per 90 lbs., carloads, on track, Montreal, for mixed white and red stock, and 70c. to 72c. for white. Reds will not be purchased alone. These are selling in a jobbing way, bagged and delivered into store, at 65c. to 70c. for reds, and 80c. to 85c. for whites.

Hay.—Dealers say the market is easier, and deliveries heavier, owing to the better roads. Some are quoting \$14 to \$14.50 per ton for No. 1 timothy, but the general view is \$14.50 to \$15, with No. 2 \$1 lower, and clover and clover-mixed another dollar lower.

Flour and Feed.—Flour is dull, and prices for Manitoba strong bakers', per bbl., in bags, are \$4, patents being \$4.60. Bran and shorts are as much in demand as flour is avoided. Millers cannot get enough of it. Bran is \$21 per ton, in bags, and shorts \$22.

Grain.—The market for grain shows little change. Oats are a shade easier. No. 2 oats are 42c. store; No. 3, 41c., and No. 4, 40c. No. 1 Northern Manitoba wheat is 86c. store, and No. 2 white winter, 77c.; No. 2 peas being 90c. Demand continues very light.

Chicago.

Cattle.—Common to prime steers, \$4 to \$7.30; cows, \$2.75 to \$4.25; heifers, \$2.60 to \$5; bulls, \$2.75 to \$4.50.

Hogs.—Choice shipping hogs, \$6.60 to \$6.65; good heavy mixed, \$6.57½ to \$6.62½; packing, \$6.52½ to \$6.57½; assorted light, \$6.57½ to \$6.60; bulk of sales, \$6.55 to \$6.60.

Sheep and Lambs.—Sheep, \$3 to \$5.75, yearlings, \$1.60 to \$6.50; lambs, \$5.75 to \$7.70.

Buffalo.

Cattle.—Prime steers, \$5.50 to \$6; shipping, \$5 to \$5.50.

Veals.—\$4.25 to \$10.

Hogs.—Heavy and mixed, \$6.80; Yorkers, \$6.80 to \$6.85; pigs, \$6.90 to \$7.

Lambs.—\$5 to \$7.75.

British Cattle Market.

London.—Liverpool and London cables are 10½c. to 12½c. per lb., dressed weight; refrigerator beef is quoted at 9c. to 9½c. per lb.

Mrs. David Kibb, Hespeler, Ont., who advertises Holstein cattle for sale in this paper, writes: "The stock we offer is all young, and of the leading strains, several bred from Record-of-Merit dams, and the others from heavy-producers."

A desirable Huron County farm, with good buildings and water supply, well fenced and drained, is advertised in this issue to be sold at auction at Clinton, Ont., on Monday, 6th. See the advertisement, a list of particulars.

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.

A FARM ICE-HOUSE.

Please publish in "The Farmer's Advocate" a description of a simple ice-house for a farm so that we can have a supply for cooling milk, keeping butter and cream, and making ice cream and lemonade in summer. M. B.

Ans.—See article on this subject in "Farm" department in this issue.

CHRONIC COUGH.

I have a mare, aged, that does not eat well. I had her teeth attended to. She takes spells of coughing, but does not heave. What is best to do for her? J. W. C.

Ans.—Give her, every morning for ten days, a ball composed of 2 drams each of powdered opium, and solid extract of belladonna, 30 grains digitalis, and 1 dram camphor, mixed with sufficient oil of tar to make plastic. Give her a bran mash two or three times a week, and good, clean hay in limited quantity.

COLIC.

Mare, four years old, in good condition, takes colicky spells occasionally. She will stamp with her hind feet, and turn her head to her right side as if in pain, and turn up her upper lip, but does not lie down. Her right hind leg also swells a little when standing in the stable.

SUBSCRIBER.

Ans.—These are attacks of indigestion. Feed her carefully on hay of first-class quality, a little bran (dry) with a dessertspoonful of ground ginger night and morning, and a quart of chopped oats at noon. Give regular exercise, and gradually increase the grain as her digestion strengthens. When she has an attack, give four drams fluid extract of belladonna and 1½ ounces each of laudanum and sweet spirits of nitre in a pint of cold water as a drench.

CEMENT SILOS.

1. How many cords of gravel are required for silo 15 x 30 feet?
2. Where gravel costs \$4 per cord, or more, is there any substitute for cement concrete other than wood? Could it not be constructed out of some kind of sheet iron? Would it cost too much?
3. Where can I hire steel rings to construct silo?
ALICK.

Ans.—1. For round silo: walls a foot thick, fourteen and a half cords.

2. We know of no other having been used. Iron would make a perfect silo, except that frost would penetrate easily; but would, we fear, be too expensive. A wooden-stave silo gives good satisfaction, and lasts for years.

3. A. E. Hodgert, Exeter, can probably give you information re the steel rings. Persons having these rings, or who are prepared to build cement silos, should insert an advertisement in "The Farmer's Advocate." T. B.

WAGES.

I hired a young Englishman for a year at \$85 per year. His time would not be out until middle of August, and he left this morning. Am I, by law, compelled to pay him as much per month during winter months as in summer? He has not earned much more than his board since November. I told him I would give him \$2 per month over and above his board through winter, as I thought that was all he earned. Through him we have had some trouble with a certain party. I told him he was the cause of it, and asked him what we was going to do about it. He said he didn't know. I said don't you think you might as well quit, as I don't think we can get along, and, while I didn't want him to quit he has done so.

Did I discharge him, or give him any reason to say I did?

Am I obliged to pay him now or when his year expires?
READER.

Ans.—We think that you gave him a sufficient legal excuse for leaving your employ as he did, and that you are liable to pay him now, and at the full-contract rate for the time he has worked.

ANSWERS.
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Life, Literature and Education.

[Contributions on all subjects of popular interest, whether relating to the Literary Society discussions or not, are always welcome in this Department.]

By Way of Variety.

There is a subject which "The Farmer's Advocate" has had in mind for some time as one of very great importance, viz., "The Education of Farmers' Daughters"—what a farmer's daughter should study, what she should know, what she should be in order, not that she may dash off to the city to fill a position there which would probably be as well filled had she not come to occupy it, but that she may be best fitted for the purely country life and the duties it entails.

Will our readers not take up this subject, and write us their thoughts upon it? We cannot see why much good should not come of such a discussion, while, on the other hand, some articles of this kind must prove a pleasing variation to the more purely literary work which the members of the Society have been carrying on so admirably.

Will all who are interested in this subject kindly send in their articles so that they may be received at this office not later than February 7th?

The Oldest Town in Canada.

Annapolis Royal, N. S., is the oldest town in Canada, and the second oldest in North America, its senior rival in antiquity being St. Augustine, Florida. Nearly the first century of its history is the history of the continent during that time, for Port Royal, as it was called in the early days, was the object and principal theatre of a strategic struggle between England and France, culminating in the treaty of Utrecht.

Founded in 1604 by De Monts, it was forsaken the same year, only to be re-occupied the next. In July, 1606, Les-carbot and a company of Frenchmen joined the new settlement, and aided much in the improvement of the land. The brave and accomplished Baron de Poutrincourt left his estates in France on February 26, 1610, and sailed for Port Royal. He was a zealous Christian, and did much to aid in the conversion of the Indians.

In 1613 Captain Argall, with a company of Virginians, sailed for Nova Scotia, and demolished the colony. Between 1620 and 1630 some Scotchmen came to Port Royal and settled, but were soon driven out by the French. In 1628 Sir David Kirk, with a fleet from England, defeated the French and left

the town in ruins. In 1634 it was granted by the French Government to Claude de Razilly, a dashing officer, who had with him Charnisay and Charles de Latour. No trouble ensued to the colony until 1654, when an English fleet crossed the ocean, but did not disturb the people. In 1690 Sir William Phipps brought it completely under British sway. Only one year passed when France again called Port Royal a possession. In 1707 it was attacked and be-

equalled by any town on the continent. In the year 1713, by the Treaty of Utrecht, Nova Scotia was formally ceded to Great Britain, and for three-quarters of a century thereafter it was chief naval station of Britain in the Atlantic provinces of North America.

Modern Annapolis Royal is an attractive town at the head of the long, narrow Annapolis Basin, and some twenty miles, by the Dominion Atlantic Railway, east of Digby, at

Beach, along the Annapolis River; to Young's Cove, where one may see the majestic but treacherous Bay of Fundy, with its cross currents, its ground swells, its choppy surf, and its forty-foot tide; to beautiful Bear River; and last—perhaps best of all—to Round Hill.

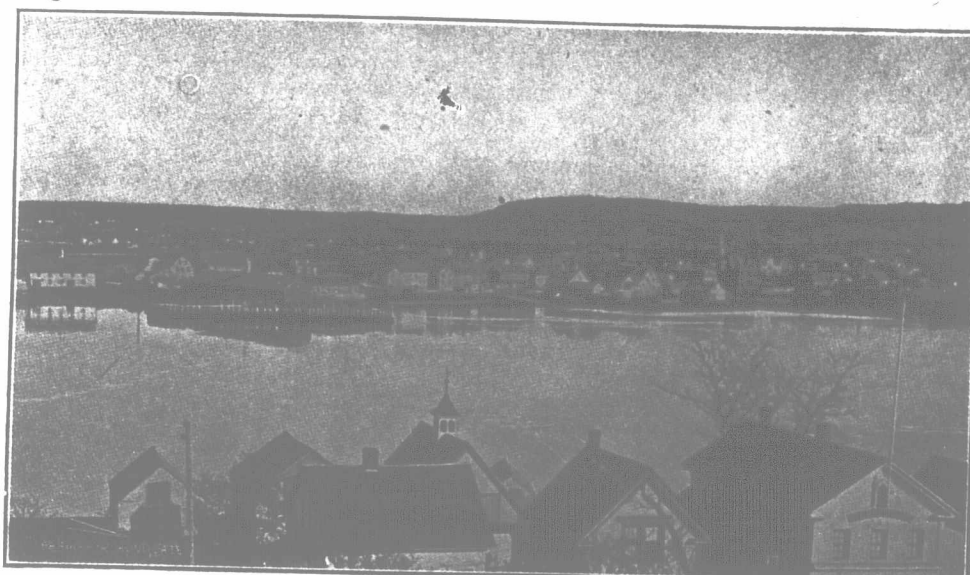
But one cannot inspect the ancient fortifications, covering an area of some thirty acres, without being reminded of the old town, Port Royal, of which the historian, W. M. Mac-Vicar has written:

"The many see only the fleeting present, but the favored few are permitted to catch glimpses of the life of long ago. Strange faces pass before the vision while sitting by the fireside in evening meditation. Figures in curious and antique garb move indistinct in the twilight. Shadowy visitors of proud and courtly mien pace our streets, mingle in our transactions, and claim residence among us. They are the ghosts of the memorable past who refuse to leave their early haunts. Men may come and men may go, with all the bustling changes of civilization, but these abide forever."

The first works are supposed to have been constructed about 1643, and with necessity the entrenchments were increased to formidable dimensions. The old, grass-grown ramparts are the first evidence of the ancient Annapolis to be noticed by the approaching traveller, who may be later surprised to find the fortifications in a tolerable state of preservation, thanks, in some measure, to an appropriation by the Dominion Government. The barracks erected by the Duke of Kent, father of Queen Victoria, are still to be seen on the garrison grounds, and there are other sights, always interesting to tourists. First is a chamber known as the Black Hole, which was used as a powder magazine and military prison. Near-by is another powder magazine, built overground, and arched inside with French sandstone.

Relic-hunters and the weather had nearly destroyed this structure, when the Government intervened and put it in repair. Then there is the old burying-ground, first used by the French, and later by the townspeople, though none are buried there now save old settlers. Among the quaint inscriptions which serve as epitaphs is one that reads: "Deposited here until the sound of the great trumpet, the remains of Charles Alex. Simpson, assistant surgeon of the Sixtieth Regiment, a native of Staffordshire, England, who obeyed the mighty word 'Return,' after an illness of three days, in the thirtieth year of his age. March 28th, 1820." W. D. A.

"When anger rises think of the consequences."—[Confucius.]

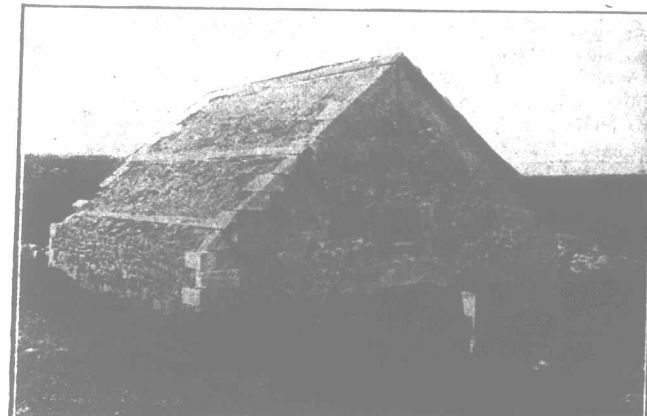


Annapolis Royal.

The second oldest town on the continent.

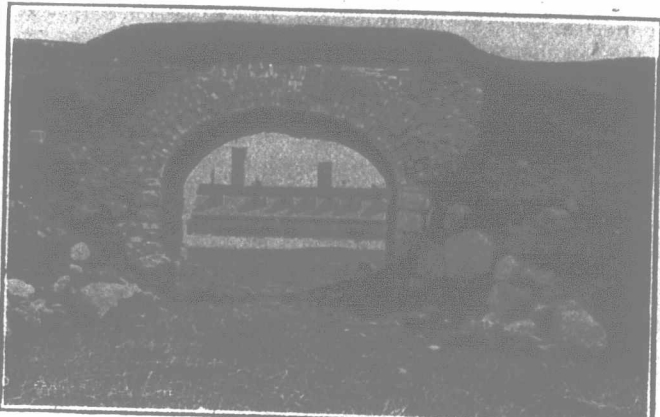
sieged by a force from Boston, but the Frenchmen drove the enemy back. Three years later General Nicholson, with four frigates and twenty transports, left Boston and sailed for Port Royal. Subercase, the governor, was unable to resist, and surrendered his forces. General Nicholson changed the name to Annapolis Royal in honor of Queen Anne, then queen of Great Britain. In the following year a battle took place at Bloody Brook, near Bridgetown, when eighty New Englanders were killed

its mouth. Here the Annapolis River flows into the basin of its name, and the town holds an important position, being not only on navigable water, but at the southwestern gateway to that most wonderful apple region known as the Annapolis Valley. Across the river, on its northern bank, lies Granville, behind which looms the sheltering breast of the North Mountain, which takes the form of a continuous cliff-like range, extending uninterrupted by from Digby Gap at the west, to



Old Magazines at Annapolis.

Two centuries and a half old.



Sally Port of Old Port Royal, Annapolis.

A relic of historic times.

by the French-Acadians and Micmacs. The fort was besieged in 1722, 1743 and in 1746, but without success. During the war of the Revolution Annapolis was taken by an American privateer, and in 1690 was partially burned by two pirate ships. In all, Annapolis Royal has stood thirteen sieges—a record believed to be un-

bold Cape Blomidon, projecting into Minas Basin toward the east. In one of its secluded gorges is an ice mine, "Untouched by summer's sun, and as yet undiscovered by the ice trust."

Some of the drives about this region are unexcelled in Nova Scotia. The principal ones are to Victoria

Our English Letter.

My fortnightly message from across the water must of necessity be a belated one, as regards current topics—a kind of aftermath of happenings which have been flashed across the wires to Canada long before—but it is a condition of affairs which I cannot remedy, and I only mention it by way of apology for my letters taking rather the form of comments than of news. Columns have been filled in our English daily papers on the subject of the Education Bill, especially whilst it was in the throes of dissolution, and some very good as well as some very mystifying things have been said about it. As late as the 14th of December, a Cabinet Minister, upon being asked for news from the political sick-room, replied, "Billy is still breathing"; whilst another is reported to have said at a public dinner: "This poor bill left the House of Commons with a good majority to speed it on its way. What happened? It was stripped and wounded and left half dead, and I am sorry to say the priests and the Levites did not even pass by. (Laughter). They joined the freebooters. They have not waited for the Samaritan to come round; they are having another go at it now. I believe they are trying to cover up some of the wounds, so as to minimize the impression of the assault they have made upon it, and possibly to make it difficult for the Samaritan to heal them. But there it is."

Since then, as everyone knows, the final blow has been struck, and the Education Bill, "with its varied subsections, its collateral clauses, its complicated and tangled amend-

ments," is dead, at least for the present; but that the final effort has been made to ensure religious instruction in the public schools of Great Britain, it is impossible to believe. The controversy, and its apparently final results, may not be without its lesson for us in Canada, justly proud as we are of our public-school system. Even the most loyal amongst us, and the most optimistic, can hardly claim that it is without a flaw.

WHEN THE SNOW FALLS.

When the snow falls in the motherland, it is certainly the unexpected which happens. In to-day's paper, 29th December, for instance, we are told, under big headlines, that there was last night "A fierce blizzard," "Wild weather in the North," "Trains and tram-cars snowed up," the snow being the heaviest experienced for several years. There have been gallant rescues at sea and on land; several incidents which have had tragic endings, and others comical to read about, but certainly otherwise to those more immediately concerned. One could hardly expect smiles from "a wedding party held up on its way from church," from the passengers in "a mail coach caught in a drift," or from a man in a Scotch fishing village across the Moray Firth, in Scotland, who was lifted bodily from his cycle and blown against the wall. It seems that the first snowfall of the season caught the London Borough Councils napping, and made it very difficult for them to organize a plan to clear the streets for the enormous amount of traffic with which they were blocked. This congestion has, however, provided work for the unemployed, now a huge section of the

community, and it also will serve as a test whereby to ascertain who are idle because they cannot get work and who are idle because they do not want to work. In the efforts being put forth this winter to provide means to send out working men to Canada, this will not be without its value for the promoters of emigration to the Dominion.

Under the heading—December 27th—"Paris Amazons. Scavengers on strike routed by women. Amusing encounter," etc., one reads of the predicament in which the municipal authorities in Paris were placed when the snowfall of Christmas night, under the bright sunshine of the next morning, melted quickly into slush, and the street-sweepers went on strike. The cabmen were in league with the strikers, and even the unemployed threw down their brooms and declared they would work no more at five francs a day (\$1.04). Then it was

"WOMEN TO THE RESCUE."

In the Ninth Arrondissement, near the Gare St. Lazare, a sagacious inspector bethought himself of having recourse to female labor. He engaged a number of stalwart market women and perambulating vegetable dealers who pull handcarts through the streets. It was a happy idea, and worked well, but unfortunately the available supply was soon exhausted, and there were not enough women to clean all Paris. These new scavengers, who were paid 5f. a day, tucked up their skirts, rolled up their sleeves, displaying brawny arms, and set to work with a will, soon clearing the principal streets of the encumbering slush. In front of St. Lazare a crowd of spectators gathered to see the women at work. They

evidently looked upon the novel sight as interesting and amusing.

Presently a delegation from the Strikers' Committee came along, in hopes of inducing the women to join their ranks, and thus further embarrass the municipality, but they met with a chilly reception. Two delegates more persistent than the others, after vain arguments, had recourse to the local "Billingsgate," and roundly abused the women. The delegates, however, received as good as they gave, the women being cheered by the amused onlookers.

AMAZONS ROUT STRIKERS.

Worsted in the verbal duel, the representatives of the strikers lost their tempers, and said things which were unprintable. Immediately the market women transferred their attentions from the streets to the strikers. Dipping their brooms in a pool of slush, they applied them to the faces and clothing of the Strike Committee. There was no withstanding such a vigorous onslaught, so the delegates, worsted on every side, fled from the scene, taking with them a good supply of Paris mud, amid the imprecations of their female rivals and the jeers and laughter of the immense crowd.

Here, in this quiet little nook upon the southern coast of England, very little snow fell, and even that is practically all gone now, whilst at Brimley, a pretty little suburb of Teignmouth, I am told that in some of the sheltered gardens the shy, pale primroses are already beginning to show their pretty heads amongst the greenery around them. In a few weeks more we shall be gathering them by the handful in the high hedges of our Devonshire lanes.

H. A. B.

The Quiet Hour.

No One at Church.

One Saturday morning I had availed myself of the privilege of private prayer within a beautiful old church, but upon rising from my knees and gaining the door, what was my astonishment to find it locked, and no one within call to come to my assistance! The woman who cleaned the church would, no doubt, soon come in to prepare it for Sunday's worship, so I reconciled myself to my position, and returned to my seat and to my meditations. After a time, becoming somewhat weary, I collected some cushions, and, resting more comfortably, enjoyed the stillness and repose.

But soon it seemed that already I was present at an early celebration for which I had prepared. I thought that it was Sunday morning: the priest was at the altar, and I had a consciousness of keen regret at the fewness of the worshippers—six in all: a priest on his holiday, a young couple (husband and wife), a doctor from a neighboring village, a young servant girl, and one poor old woman.

It was a large, well-taught parish, yet there were present none of the leading people, none of the business men, none of the farmers, none of the candidates at the last Confirmation.

My own thoughts certainly seemed to wander, quite without any check. Perhaps I was following up the train of thought of all these lost opportunities, when I felt a soft hand placed across my

eyes, and heard a whisper in my ears of "Judge not: the scales shall be removed from thine eyes: Behold!"

Was it the touch and the voice of an angel? I bent low in trembling humility and awe. Venturing presently to raise my eyes, great was my astonishment at finding the hitherto empty church full of living beings. At the gates of the screen leading into the chancel stood two angelic sentinels, their white, glistening raiment contrasting with the rich tints of the painted windows. Above the altar, high up in the vaulted roof, were myriads of cherubim; round and about the altar were groups of angels holding "golden censors," with incense therein, "which they offered up with the prayers of all saints, and the smoke of the incense, which came with the prayer of the saints, ascended before God out of the angels' hands."

That was not all. Near at hand I saw mysterious angelic forms mixing with a crowd of worshippers I had not seen before. The latter was somewhat shadowy and indistinct, but it was gradually revealed to me that they were linked in some way to the six worshippers already referred to.

When looking at the little servant girl more closely, I observed she was leading by the hand one who, I concluded, was her sweetheart; he seemed clad in the uniform of a soldier, then fighting on the field; and for an instant I seemed to catch a glimpse of an ambulance and the red cross of the attendants; and by the other hand she led one who I fancied might be a dearly-loved brother. By his garb I supposed him to be a factory hand, amid, perhaps, dangerous surround-

ings; and as she reverently entered the chancel, the little maid seemed to take these shadowy but much-loved forms to the foot of the altar, and I seemed to hear her cry:

"And then for those, our dearest and our best,

By this prevailing Presence we appeal;
O fold them closer to Thy mercy's breast,
O do Thine utmost for their souls' true weal;

From tainting mischief keep them white and clear,

And crown Thy gifts with strength to persevere."

I noticed that the chancel was crowded by quite a motley throng. The visiting priest had gone up first to communicate, and he was earnestly commending all his parishioners—toilers in a manufacturing city, gaunt, harsh-looking men, poorly-clad women, and little, sickly children—truly all sorts and conditions—and his guild workers, his choir, and his sick. He took them all and laid them down before the altar, and I remembered, "He helpeth them to the uttermost who come unto God by Him."

The doctor had brought his sick, and the dying, and the cases of suffering which were perplexing him; and also the households he visited, to whom he longed to breathe a message of peace and unity, but found it a task too difficult and delicate.

Then I turned and saw the young husband and wife, and they brought with them two curly-headed, golden-haired darlings just clinging round their parents' knees, and these they presented at the

altar steps, in mutual faith and joy for the blessings on their wedded love and happiness.

And lastly came the old woman, hobbling up the chancel steps; very poor and very feeble she appeared; but what a crowd attended her! First, an old, bed-ridden husband, then a string of middle-aged sons and daughters, respectable, hard-working people they appeared, and a cluster of grandchildren of all ages and conditions, winding up with one little baby girl of the fourth generation—very dear to grannie's heart. And the old lady knelt with difficulty, but her wrinkled face was illuminated with holy love and joy as she brought all her worldly treasures and laid at His feet who accepts our mearest gifts, and hears our humblest prayers, especially when offered Him united with that "mystic sweet Communion." And I thought of holy Job, who "rose up early in the morning and offered burnt offerings, according to the number of them all. Thus did Job continually."

The mystic service seemed to end, the shadowy forms melted into obscurity, the worshippers dispersed, and I knelt on in silence with the angel-guard still around the altar—realizing that virtue from the precious Blood extends far and wide, "for there is no restraint to the Lord to save by many or by few."

And while I thus pondered over this wondrous revelation, I heard the key turning in the lock and my friends coming to release me—but, following the example of the Blessed Virgin, "I kept all these things and pondered them in my heart."—[The Watchword.

Current Events.

The volcano Mauna Loa, Hawaii, is in eruption.

A typhoon in the Philippine Islands has caused the loss of one hundred lives.

Smallpox, which has broken out in the famine districts of China, is causing terrible suffering.

A large deposit of high-grade iron ore has been discovered near Deseriet, Ont., near the Sault.

Right Rev. Arthur Sweatman,

M. A., D. D., D. C. L., former Bishop of Toronto, has been elected Primate of all Canada.

Mr. Colm Forbes, a Canadian artist, has recently completed a portrait of Sir Henry Campbell-Bannerman which has been highly praised by critics in old London.

The largest block of granite ever sent to Canada has been shipped from Vermont. It will be cut into a memorial to be erected to the honor of the late Raymond Prefontaine, late Minister of Marine and Fisheries.

Prof. Herschel Parker and Walter

Clark, of Columbia University, have invented an incandescent lamp which, they assert, will reduce the cost of electric-lighting by one-third. By it helium filament will be used instead of carbon.

Hon. G. W. Ross and Hon. John Costigan took their seats in the Senate on January 16th. Hon. O. E. Comeau, and Messrs. Gilmour and Beth, the last named being well known in stock and agricultural circles in Canada, have been appointed to the other Senate vacancies. Hon. G. W. Ross and Robt. Beth represent Ontario, Hon. John Costigan and Mr. David Gil-

mour, New Brunswick, and Hon. O. E. Comeau, Nova Scotia.

The world is again aghast at the terrible catastrophe which has once more fallen by earthquake, this time at Kingston, Jamaica. According to the latest reports before going to press, the number of dead has been placed at about one thousand, of whom about one hundred were whites. As the number of the latter in the city had been greatly augmented owing to the tourist season being at its height and the presence of many delegates to the Agricultural and Cotton Conference, then in session, it seems marvellous that the percentage of deaths was not higher.

Among the dead was Sir James Fergusson, a noted British statesman, and at one time Postmaster-General for Great Britain. As in San Francisco, many of the most harassing features of the disaster were caused by fire, which broke out immediately, while the danger of looters from among the black population was one too near to add much to the comfort of the homeless and almost helpless white element. The total loss in property has been placed somewhere in the neighborhood of £10,000,000.

With the Flowers.

The Calla.

The Calla is a very easily-grown plant, and one which, in consideration of the length of time which it blooms, is a very deserving winter favorite. The soil used for the Calla should be a rather rich compost of muck and old, well-rotted manure—black barnyard earth—with sand enough to make the mixture light and porous.

Though semi-aquatic, the plant does not like stagnant water about its roots, hence it is very necessary to provide sufficient drainage material in the bottom of the pot. Water—enough to run through a little at the bottom—should, however, be given every day, along with a thorough showering of the foliage. The water should always be warm, and the Calla should be kept in a rather warm place, in a good light, but not exposed to the sunshine.

Although the Calla will make some sort of a showing if kept growing the whole year, it does much better if rested every summer. Turn the pot on its side in some out-of-the-way spot in the garden in June, and leave there, quite without attention, until September, then shake away the soil, repot, bring into the house, and treat as above.

The Amaryllis.

The Amaryllis is a very desirable plant for window culture, its magnificent clusters of brilliantly-colored flowers rendering it an acquisition to any room. In order to have success with it, however, it is absolutely necessary to give it a complete rest at some season of the year—whenever it stops sending up new growth and begins to turn yellow along its outer leaves. During the resting period give just enough water to keep the bulbs from shrivelling and keep in a dark place, but never in a cold, damp cellar. Leave it there until signs of new growth—perhaps a flower-stalk—appears, then give light, warmth, water, and weekly applications of liquid manure.

The Amaryllis does not care much for having its bulbs disturbed, hence do not repot unless absolutely necessary. Give a good rich soil of loam mixed with one-third its bulk of old, black cow manure, and when potting set the bulb half its depth in the soil. Several bulblets are likely to grow up around the parent, but do not let more than two or three remain.

Begonias.

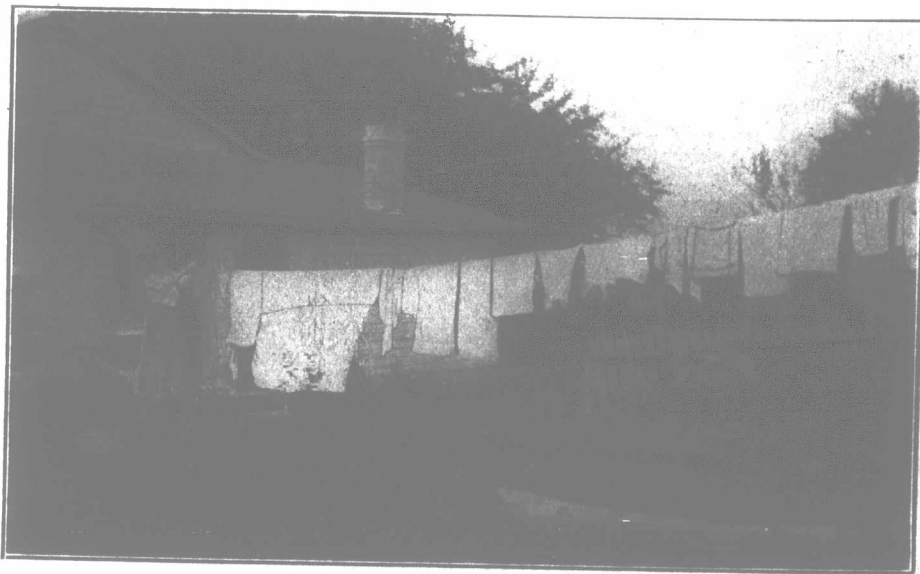
Begonias are received with greater favor each year, according as their merits become known. True, the Rex varieties, grown for their foliage, do not, as a rule, flourish well outside of the greenhouse, the air of an ordinary living-room being usually too hot and dry; but the flowering, fibrous-rooted sorts, especially the thick-leaved varieties, will do well in any house in which the air is kept pure and from which the frost can be excluded, and with no more care than is given to geraniums. The main requisite is to give them a light, porous soil, composed of loam, leaf-mould and sand, with sufficient rough material at the bottom of the pot to insure good drainage. None of the begonias care for much strong sunshine, although mild winter sunshine is beneficial. They require about as much water as geraniums, but resent having their leaves showered.

About the House.

A Pulley Clothes-line.

Mr. R. J. Thomas, Norfolk Co., Ont., writes us as follows: "In answer to F. B. W. A. an enclosing drawing of roller clothes-line. Hope it will be satisfactory. Have had it in use for a number of years, and made improvements as needed until it works nicely.

"Pole should be 10 feet out of the ground. Pulleys should be in line. Pulley wheels should be wood, as iron gets rusty. Line should be a 100-foot galvanized one. When starting to hang out clothes, have the line connection as shown in drawing, and the knot will not get caught. Iron C is to hold the line



Pulley Clothes-line.

(Note the upper line, which does not appear very clearly in our illustration.)

running off in case the post gets out of true."

We are very grateful to Mr. Thomas for this information, and we are sure that an army of women who have hitherto been obliged to step out into snowy yards to hang out their clothes will also arise and call him blessed. We would suggest as an improvement that a porch be erected at the point from which the clothes are to be hung. Then indeed might the blusters of winter be defied, and wash day lose more than half its terrors.

Some Winter Recipes.

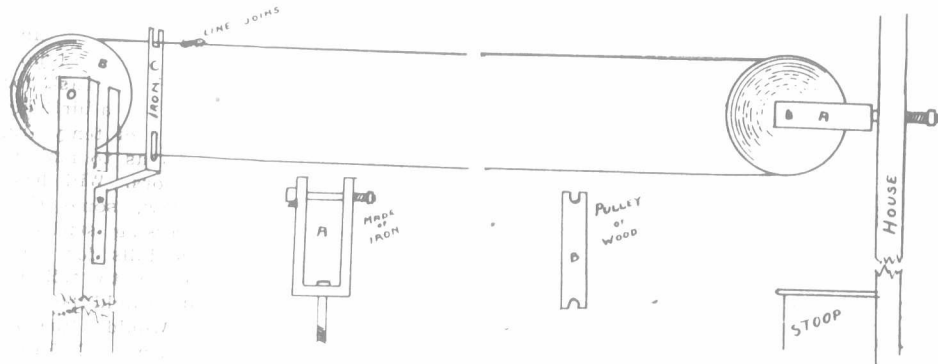
Cold-meat Pie.—Make a sauce as follows: Melt a bit of butter in a pan and fry in it an onion (chopped). Add 1 tablespoon flour, and a little salt. Mix well, and add two or three cups of gravy or stock. Cook slowly, and, when done, add a cup of canned tomatoes or a little tomato catsup. Now put this sauce in a pudding dish, and into it lay the slices or scraps of boiled meat. Cover all with a layer of potatoes mashed smooth with a little milk, and well seasoned. Brush

diced potato, and half a small onion (chopped). Cover with water, and boil until the potato is tender, then take off the lid, and let the water boil off. Add a pint of milk, and when boiling hot, thicken with a tablespoon of flour stirred smooth in a little cold milk.

Mock Terrapin.—Cut cooked calf's liver into dice. Put a tablespoon of butter into a saucepan, add salt and pepper, and cook till the butter is dark brown, then add 1 tablespoon flour and enough stock to make a thick sauce. Add a little chopped parsley, $\frac{1}{2}$ cup cream, 2 hard-boiled eggs cut fine, a tablespoon lemon juice, and the liver. Cook till the liver is heated through, and serve on slices of buttered toast.

Uncle Tom Pudding.—To 1 cup flour add 1 small cup minced suet, $\frac{1}{2}$ cup brown sugar, 2 cups dark molasses, 1 teaspoon ground ginger, 1 of cinnamon, 1 of allspice, 1 of soda. Beat 2 eggs, mix with 1 cup milk, and add to the other ingredients. Mix all together; pour into a buttered mould, and steam or boil in a pan of water 2 hours. Serve with cream or butter sauce.

Sponge-cake Pudding.—Scald in the



Plan of Pulley (Clothes-line.

over the top with a little beaten egg, and bake. Set in the top of the oven for a little while to brown, and serve in the dish in which it was cooked, with a mayonnaise pinned neatly around.

Meat and Potato Roll.—Chop up some cold meat, and season with pepper, salt and catsup. Mash some potatoes with a little butter and beaten egg, and knead in as much flour as it will take without cracking. Roll out, lay on the meat, wet the edges, and roll up like a roly-poly. Brush over with beaten egg, and bake till a light brown color.

double boiler 2 cups sweet milk. Into this stir 2 cups stale sponge or layer cake crumbs. Stir in 1 teaspoon butter, $\frac{1}{2}$ cup sugar, and 2 tablespoons flour rubbed smooth in a little cold milk, and the beaten yolks of 2 eggs. When nearly cold, add 1 cup seeded raisins, or currants, dredged with flour, and 1 teaspoon vanilla. Last of all stir in very light the beaten whites of the 2 eggs. Bake in a buttered mould $\frac{1}{2}$ hour, and serve with cream or sauce. A meringue of white of eggs on top improves the appearance.

Brown Betty.—Chop 2 cups sour apples, and prepare 1 cup bread crumbs. Butter a deep pudding dish, and spread a layer of apples at the bottom. Cover with breadcrumbs, and sprinkle with bits of butter, cinnamon and sugar. Proceed in this way until all are used, covering the top with crumbs dotted with butter. Cover, and bake slowly for $\frac{1}{2}$ hour, then remove the cover, and brown. Serve with sugar and cream. If you want to have the "Betty" more fancy, add chopped nuts and raisins.

Apple Pudding.—Make a suet crust, and line a pudding basin with it. Pare, core and cut up the apples; fill the basin with them; add sugar, a little lemon peel and juice, and cover with crust. Pinch the edges well together; cover with a floured cloth, and tie tightly. Boil 2 $\frac{1}{2}$ hours; then turn out of the basin, and serve very hot.

Scotch Baked Apples.—Eight apples, 8 tablespoons breadcrumbs, 8 teaspoons sugar, 6 teaspoons marmalade of any kind, preferably orange, 1 $\frac{1}{2}$ tablespoons butter. Core the apples, leaving a wall at the bottom. Fill with the sugar, $\frac{1}{2}$ tablespoon butter and the marmalade mixed. Put in the pan, and bake. Mix the crumbs and the rest of the butter together, and brown in the oven. Cover the baked apples with this, and serve with sugar and cream.

What Dr. Oldright Says About Ventilation.

In a recent address to the Household Economic Society, Toronto, Dr. Oldright emphasized the great necessity for the ventilation of houses during cold weather. "Each individual in the house," he said, "requires 3,000 cubic feet of fresh air per minute to keep him or her in a healthy condition." This supply, he pointed out, could be obtained by opening a window about one-quarter of an inch at the top and the bottom. In arranging ventilation in houses, he said, it is always more comfortable to have four or five ventilators, even if they were windows. . . . Such words as these should not be disregarded. Physicians do not continually preach the doctrine of fresh air without reason.

The Sailor Man.

By Moira O'Neill.

Such a terrible time I was out o' the way,

Over the sea, over the sea,
Till I come back to Ireland one sunny day,—

Better for me, better for me,
The first time me foot got the feel o' the ground

I was sthrollin' along in an Irish city,
That hasn't its aqul the world around
For the air that is sweet an' the girls that are pretty.

Light on their feet now they passed me an' sped,

Give me your word, give me your word,
Every girl wid a turn o' the head

Just like a bird, just like a bird;
An' the lashes so thick round their beautiful eyes,

Shinin' to tell you it's fair time o' day wid them;

Back in me heart wid a kind o' surprise
I think how the Irish girls has the way wid them!

Oh man alive! but it's little you know
That never was there, that never was there;

Look where ye like for them, long may ye go,—

What do I care? What do I care?
Plenty as blackberries where will ye find

Rare pretty girls, not by two nor by three o' them?

Only just there where they grow, d'ye mind,
Still like the blackberries, more than ye see o' them.

Long, long away, an' no matter how far,

'Tis the girls that I miss, the girls that I miss;

Women are round ye, wherever ye are,
Not worth a kiss, not worth a kiss.

Over in Ireland many's the one,—
Well do I know, that has nothing to say wid them,—

Sweeter than anything under the sun,
Och, 'tis the Irish girls has the way wid them!

The Ingle Nook.

Some Interesting Questions.

A few weeks ago Rev. Dr. Van Horne, of the Church of Christ, Cecil St., Toronto, solicited from among the young men of his church opinions regarding the young women of to-day. From among the many letters received, the following criticisms were selected as representative:

"So few young women nowadays know anything about cooking or kitchen knowledge that baking and breadmaking in the home is almost a lost art."

"Young women have a great desire to be seen and admired, no matter at what or whose cost, but preferably at the expense of anyone but themselves."

"Many are dowdy and dishevelled in their home, unless expecting visitors."

"Most young women are looking for the man who has the most money and is willing to spend it on them, natural preference being set aside as of secondary moment."

"Very few young ladies of the present day are sincere or unselfish. With their own sex they are all smiles and endearments, providing they wish to use them as a means to gaining their own ends, but outside of that consideration are often spiteful, envious, jealous and frequently slanderous."

"Those who profess to be church members and many who are semi-religious are inclined to be narrow-minded—will turn down a young man if they hear he smokes or has been to the races, but invariably never investigate to ascertain the truth of the rumor, nor, if true, use their religious influence to persuade and lead him to the proper path."

"Very many young women of this generation are unkind to their parents, regard their younger brothers and sisters as so many nuisances, but with those of the younger men they desire to please are the acme of sisterly graces and affection."

"Nearly all prefer the man of the sporty type, who knows society from its risqué and swagger standpoint, but for the thoughtful, earnest and intelligent man they have no use; he is too slow, and his dullness pains them."

The first criticism may, perhaps, so far as these columns are concerned, be set aside; farmers' daughters invariably know at least something of cooking and baking, and the criticism was evidently made in regard to city girls in homes where maids are kept.

As regards the others, many of our young women may, possibly, arise in arms; and yet we venture to say that any young woman who knows the world at all must confess to knowing girls and girls whom these descriptions exactly fit. Young men do not go about with their eyes shut, and there is the ring of honesty in these words that they have spoken. If they have confused individuals with types, that has been, perhaps, because they have met too many of the "individuals." It is rather notorious that all the girls of a clique grow to be painfully alike, and a young man's judgments are naturally confined to the particular clique with which he comes in touch.

With the deduction made from the letters regarding the ideal woman, few of our readers will quarrel. We continue from the report of the pastor's address:

The ideal woman, from the letters read, pointed to one who need not be beautiful to be the most desired.

Who has womanly graces, which include a love of home, husband and children;

Who has a desire to make the most and do the best with the income at command;

Who has a high and exalted sense of the duty she bears to her own family, her own people and her own religion;

Who has a forbearance with others, and

Who has an absence of that inordinate and all-consuming love for dress and display that is the bane and ruin of so many of her sisters and so many homes.

Summing up, the pastor said that what the young man of to-day wished for most in the young woman he would marry was more reality and less of the artificial, a woman more like what his mother and

grandmother represented; one who valued a pure heart more than a big diamond.

The pastor appealed to the young women present to try to get rid of their faults and to endeavor to live more according to the ideal set out in the letters he had just read, to strive and realize in their own lives and actions that higher, grander and broader life described by the Psalmist, when to all womankind for all the centuries he enjoins, "Cleanse thou me of my secret faults."

Before closing, there is just one point upon which we should like to say a few words, i.e., regarding the assertion that a great many young women prefer the man of the "sporty type," etc., to the "thoughtful, earnest man." We should like to say that this is not true, but we know better. Yet, in defence of the girls, we must say that it is not because a man is "sporty" or of the "risqué" description that they like him, but because of something else that is attractive, often found in that type of man. Lacking that

"something," a man who is simply "fast" is utterly obnoxious to the feminine mind. No woman can like or respect a man for the simple reason that he drinks, smokes, swears and swaggers. If she is honest, she must confess that she would like him better if he gave himself up to not a single one of these foolishnesses. But what is that other "something"?

This is a question for the young women, and perhaps some of the older ones, too, who have been "through the mill," to answer. Might it not be possible for the men of that "thoughtful, earnest" type who do not happen to possess it (for there are many who do) to cultivate it, and so win for themselves the recognition which they deserve? Or, again, is it possible for people to cultivate in themselves any attribute or temperament to which they have not been "born"?

We are getting perilously near the realms of the psychological, and perhaps we are in danger of being lost in a maze which we cannot follow—but these are questions well worth the considering. Will you not send us some of your thoughts about them? D. J.

Cure for Chilblains.

For Mother of Two.—A sure cure for chilblains, which has cured many: Put some ashes in an old pail or damper of an outhouse stove, and put in a lot of coals, then cut up thin strips of old dry leather and put on coals, and sit down and hold your feet over the smoke of the leather. This is a sure cure, for it hardens the feet that they do not feel the cold so easily. Repeat this after washing them. This cured mine, which were terrible all my life, and it is so simple. I hope it cures your little fellow's feet too. LANKSHIRE LASS.

Wellington Co., Ont.

A Request.

Dear Dame Durden,—May I come in for a little chat?—as my baby is sleeping, and I have nothing else to do but nurse a sore leg. By the way, I wonder if any of your readers have had any experience with inflammation in the veins of the leg and foot. That is my trouble, and I have been laid up with it for over seven months.

I offer my sympathy to Lankshire Lass, and I do hope she is better again. Do you know, Dame Durden, I do not think any of us have enough sympathy with the sick and afflicted; but everybody is so kind to me that I should not say that either. But, since I have been afflicted myself, I feel more sympathy for others in trouble.

I must tell you, dear Dame, that I enjoy the Ingle Nook every week, and the Quiet Hour, too, also R. J. D.'s letters from Sunny Alberta. I was slightly acquainted with him. If any of your readers have had any experience with that inflammation trouble, will they please be kind enough to tell us how they treated it? JUNE EVE.

Huron Co., Ont.

I was pleased to read your private letter, June Eve. I don't wonder that you are disappointed. We hope you will be better soon. Have you taken your trouble to a good doctor?

Another 25th Anniversary.

May, Welland Co., Ont., probably found her questions re wedding anniversary answered in a previous issue, which, however, was just in the process of making when her letter was received. The following is the recipe for salted almonds. The others were given in the issue referred to.

Salted Almonds.—Shell and blanch by pouring boiling water on them, then letting stand five minutes, and finally rubbing off the skins with a coarse towel. Dry very thoroughly, and to each pint of meats allow 2 tablespoons olive oil. Pour over the nuts, and toss with a fork until well coated. Set aside for an hour to let them absorb the oil, then dredge lightly with fine salt. Last of all, put in a bright baking-tin and set in the oven. Bake till a golden brown, shaking the tin frequently to insure even browning. They will be done in about ten minutes.

Westerners, Listen!

Dear Dame Durden,—May I draw my chair a little closer, and again have a little "say" in the Nook?

I do want to tell the members of this charming circle of a way to keep their fingers from getting so cold while hanging out the clothes on cold days. Try putting the clothes-pegs in the oven to warm, and you will see how much better it is. A piece of court plaster is excellent to put under a small tear in a dark dress or men's clothes. Just moisten it as you would if you were going to put it on your hands, then press firmly on the wrong side, and the rent will hardly show at all. It is also good to mend a man's felt hat.

Now, will some of our Western friends listen? I would like to go West next summer, also I would like to go somewhere where I could get employment in one of the farm homes of that great country. I know some girls who want there last summer, and received twenty dollars a month. Now, is this general, or did they strike something unusual?

What work is expected of a hired girl in the West? Do they have to do the milking, etc.?

When our brothers and friends go and have such a good time as they seem to, it rather makes us girls wish we could go too.

And when there is such a demand for men to work in the harvest fields, I should think that there would also be a demand for good girls, especially girls from the farm. There are two or three of us who would like to take the trip next summer, and we thought if we could we might just as well work a part of the time to help pay our expenses, and then we would have a chance to see the country too. I hope I have not stayed too long, but I have some good things for the Chatterers another time. If anyone would like my address, it is with Dame Durden, and she may give it to them. EDNA.

Kent Co.

A Child's Birthday Party.

Dear Dame Durden and Chatterers All,—I have enjoyed this Nook for a long time in silence, and never before realized how helpful it was until I wanted to ask for help myself. I want to give a birthday party for my little daughter of ten years, and would ask a few hints as to making it pleasant for them indoors. Will have about fifteen girls. I saw, some time ago, something about dressing sticks of candy in tissue paper as dolls for each plate. Would ask someone to tell me how; and any other hints would be very graciously received. Would like an answer as soon as convenient. I forgot to say I will serve lunch.

YOUNG MOTHER.

For a party such as this, very little preparation by way of amusement will be needed. The children may be trusted to suggest games for themselves, and will probably enjoy them better than if directed by older folk. For the luncheon, the chief consideration will be to have things pretty and digestible; you will not want to send any of the tots home with stomachache. Do not provide too many kinds of things, as children are usually tempted to try everything. A little cold sliced chicken and salad for the children

who do not like sweet things "best," bread and butter, some pretty jelly with whipped cream, fruit, candy, and a birthday cake prettily decorated, should be sufficient. For favors, sticks of candy with crinkle Japanese paper tied on for capes and skirts would be pretty. The eyes, nose and mouth might be painted on with thick cochineal, which is harmless; or you might gild walnut shells, put a very tiny doll (which may be bought small enough) in each, glue the halves together, and use instead.

The following recipe for Child's Birthday Cake is recommended by Boston Cooking School: Beat yolks of 5 eggs very light, then gradually beat in $1\frac{1}{2}$ cups sugar. Add grated rind and juice of half a lemon. Fold half of the stiffly-beaten whites into this, then add $1\frac{1}{2}$ cups sifted flour, and lastly the rest of the whites. Heat in oven for first twenty minutes should be very moderate. When cold, cover with boiled frosting, and decorate prettily according to taste. About the cake put ten lighted wax candles, one for each year of the child's age. These may be fastened to the cake with bent bits of bright wire.

Any further suggestions from our readers will be acceptable.

Ships that Never Came Back.

I freighted a ship with Hopes and Dreams,

And trimmed the sails with prayer,
And hoisted the anchor to the decks
On a morning bright and fair,
And she glided away in proud array,
On a gleaming jasper sea,
But in all the years of waiting and tears,
She never came back to me.

I freighted a ship with the Greed of Gold,

And set it afloat again,
And victualled it well, and barbed her decks,
With guns and valiant men;

As she left the shore, the breakers' roar
A requiem seemed to be,
For in weary days, to my yearning gaze,
She never came back to me.

I freighted a ship with Fame's Desire,
And gave her the wings of steel,
And sent her away on a stormy day
With an anguished heart's appeal.

Then struggles began with my fellow man
Whose cargo the ship's should be,
But she quelled the brawl, for never at all
Did the ship come back to me.

Then I sailed a ship all laden down
With Love for my fellow man,
And all of her cost from my ledger I crossed

Ere the voyage of the ship began,
But never a ship that left the slip
Made such a voyage as she,
For a thousand weight of her previous freight

Came sailing back to me.

—John C. Baird.

How He Saved Money.

A Kenwood man consented the other day to go to the millinery department for the purpose of helping his wife decide on a hat. After much trying on, the lady decided on two hats from which to make her selection. One of them was \$24, the other, \$16.

"Now, I want you to tell me honestly, George," she said, "which of these two you would advise me to get?"

Then she put one on after the other and permitted him to view her from in front, each side, and from behind.

"Well, I'll tell you," he said, at last, "the one you had on first looks to me as if it might be more stylish and all that, but the second one makes you look much younger than you do in the other."

He had wasted an hour, but he had saved \$8.

Recipes.

Gingerbread Cakes.—One cup New Orleans molasses, 1 cup sugar, 1 cup sour cream, 1 cup butter, 3 eggs, 3 cups Five Roses flour, 1 spoonful soda, spice to taste.

Molasses Cookies.—One cup molasses, 1 cup butter, 1 egg, $\frac{1}{2}$ cup sour milk, 1 teaspoon soda, $\frac{1}{2}$ teaspoon ginger, Five Roses flour to make a soft dough.

Bob, Son of Battle.
BY ALFRED OLLIVANT.

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CHAPTER XXII.—Continued.

So they reached the top of the hill; and the house stood before them, grim, unfriendly.

The girl's face was now quite white, yet set; the resemblance to her father was plain to see. With lips compressed and breath quick-coming, she crossed the threshold, treading softly as though in a house of the dead. There she paused and lifted a warning finger at her companion, bidding him halt without; then she turned to the door on the left of the entrance and tapped.

She listened, her head buried in the shawl, close to the wood panelling. There was no answer; she could only hear the drumming of her heart.

She knocked again. From within came the scraping of a chair cautiously shoved back, followed by a deep-mouthed cavernous growl.

Her heart stood still, but she turned the handle and entered, leaving a crack open behind.

On the far side the room a little man was sitting. His head was swathed in dirty bandages, and a bottle was on the table beside him. He was leaning forward; his face was gray, and there was a stare of naked horror in his eyes. One hand grasped the great dog who stood at his side, with yellow teeth glinting, and muzzle hideously wrinkled; with the other he pointed a palsied finger at her.

"Ma God! wha are ye?" he cried hoarsely.

The girl stood hard against the door, her fingers still on the handle; trembling like an aspen at the sight of that uncannic pair.

That look in the little man's eyes petrified her: the swollen pupils; lashless lids, yawning wide; the broken range of teeth in that gaping mouth, froze her very soul. Rumors of the man's insanity tided back on her memory.

"I'm—I—" the words came in trembling gasps. At the first utterance, however, the little man's hand dropped; he leant back in his chair and gave a soul-bursting sigh of relief.

No woman had crossed that threshold since his wife died; and, for a moment, when first the girl had entered silent-footed, aroused from dreaming of the long ago, he had thought this shawl-clad figure with the pale face and peeping hair no earthly visitor; the spirit, rather, of one he had loved long since and lost, come to reproach him with a broken troth.

"Speak up, I canna hear," he said, in tones mild compared with those last wild words.

"I—I'm Maggie Moore," the girl quavered.

"Moore! Maggie Moore, d'ye say?" he cried, half rising from his chair, a flush of color sweeping across his face, "the dochter o' James Moore?" He paused for an answer, glowering at her; and she shrank, trembling, against the door.

The little man leant back in his chair. Gradually a grim smile crept across his countenance.

"Weel, Maggie Moore," he said, half-amused, "ony gate ye're a good plucked un." And his wizened countenance looked at her almost kindly from beneath its dirty crown of bandages.

At that the girl's courage returned with a rush. After all, this little man was not so very terrible. Perhaps he would be kind. And in the relief of the moment, the blood swept back into her face.

There was not to be peace yet, however. The blush was still hot upon her cheeks, when she caught the patter of soft steps in the passage without. A dark muzzle flecked with gray pushed in at the crack of the door; two anxious gray eyes followed.

Before she could wave him back, Red Wull had marked the intruder. With a roar he tore himself from his master's restraining hand, and dashed across the room.

"Back, Bob!" screamed Maggie, and the dark head withdrew. The door slammed with a crash as the great dog flung himself against it, and Maggie was hurled, breathless and white-faced, into a corner.

M'Adam was on his feet, pointing with a shrivelled finger, his face diabolical.

"Did you bring him? Did you bring that to ma door?"

Maggie huddled in the corner in a palsy of trepidation. Her eyes gleamed big and black in the white face peering from the shawl. Red Wull was now beside her, snarling horribly. With nose to the bottom of the door and busy paws he was trying to get out; while, on the other side, Owd Bob, snuffing also at the crack, scratched and pleaded to get in. Only two miserable wooden inches separated the pair.

"I brought him to protect me. I—I was afraid."

M'Adam sat down and laughed abruptly.

"Afraid! I wonder ye were na afraid to bring him here. It's the first time iver he's set foot on ma land, and 't had best be the last." He turned to the great dog. "Wullie, Wullie, wad ye?" he called. "Come here. Lay ye doon—so—under ma chair—good lad. Noo's no time to settle wi' him"—nodding toward the door. "We can wait for that, Wullie; we can wait." Then, turning to Maggie, "Gin ye want him to mak' a show at the Trials two months hence, he'd best not come here agin. Gin he daes, he'll no leave ma land alive; Wullie'll see to that. Noo, what is 't ye want o' me?" The girl in the corner, scared almost out of her senses by this last occurrence, remained dumb.

M'Adam marked her hesitation, and grinned sardonically.

"I see hoo 'tis," said he; "yer dad's sent ye. Aince before he wanted something o' me, and did he come to fetch it himself like a man? Not he. He sent the son to rob the father." Then, leaning forward in his chair and glaring at the girl, "Ay, and mair than that! The night the lad set on me he cam'—with hissing emphasis—"straight from Kenmuir!" He paused and stared at her intently, and she was still dumb before him. "Gin I'd bin killed, Wullie'd ha' bin disqualified from competin' for the Cup. With Adam M'Adam's Red Wull out o' the way—noo d'ye see? Noo d'ye onderstan'?"

She did not, and he saw it and was satisfied. What he had been saying she neither knew nor cared. She only remembered the object of her mission; she only saw before her the father of the man she loved; and a wave of emotion surged up in her breast.

She advanced toward him, holding out her hands.

"Eh, Mr. M'Adam," she pleaded, "I come to ask ye after David." The shawl had slipped from her head, and lay loose upon her shoulders; and she stood before him with her sad face, her pretty hair all tossed, and her eyes big with unshed tears—a touching suppliant.

"Will ye no tell me wher he is? I'd not ask it, I'd not trouble ye, but I've bin waitin' a wafu' while, it seems, and I'm wearyin' for news o' him."

The little man looked at her curiously. "Ah, noo I mind me,"—this to himself. "You're the lass as is thinkin' o' marryin' him?"

"We're promised," the girl answered simply.

"Weel," the other remarked, "as I said afore, ye're a good plucked un." Then, in a tone in which, despite the cynicism, a certain indefinable sadness was blended, "Gin he mak's you as good a husband as the ma' son to me, ye'll ha' made a maist remarkable match, my dear."

Maggie fired in a moment.

"A good feyther makes a good son," she answered almost pertly; and then, with infinite tenderness, "and I'm prayin' a good wife'll make a good husband."

He smiled scornfully. "I'm feared that'll no help ye much," he said.

But the girl never heeded this last sneer, so set was she on her purpose. She had heard of the one tender place in the heart of this little man with the tired face and mocking tongue, and she resolved to attain her end by appealing to it.

"Yo' loved a lass yo'sel' aince, Mr. M'Adam," she said. "Hoo would yo' ha' felt had she gone away and left yo'? Yo'd ha' bin mad; yo' know yo' would. And, Mr. M'Adam, I love the lad yer wife loved." She was kneeling at his feet now with both hands on his knees, looking up at him. Her sad face and quiver-



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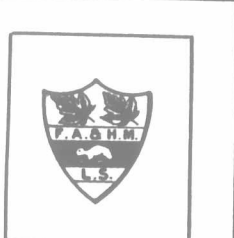
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ing lips pleaded for her more eloquently than any words.

The little man was visibly touched. "Ay, ay, lass, that's enough," he said, trying to avoid those big beseeching eyes which would not be avoided. "Will ye no tell me?" she pleaded. "I canna tell ye, lass, for why, I dinna ken," he answered querulously. In truth, he was moved to the heart by her misery.

The girl's last hopes were dashed. She had played her last card and failed. She had clung with the fervor of despair to this last resource, and now it was torn from her. She had hoped, and now there was no hope. In the anguish of her disappointment she remembered that this was the man who, by his persistent cruelty, had driven her love into exile.

She rose to her feet and stood back. "Nor ken, nor care!" she cried bitterly.

At the words all the softness fled from the little man's face.

"Ye do me a wrang, lass; ye do indeed," he said, looking up at her with an assumed ingenuousness which, had she known him better, would have warned her to beware. "Gin I kent where the lad was I'd be the vairy first to let you, and the p'lice, ken it too; eh, Wullie! he! he!" He chuckled at his wit and rubbed his knees, regardless of the contempt blazing in the girl's face.

"I canna tell ye where he is noo, but ye'd ablin's care to hear o' when I saw him last." He turned his chair the better to address her. "Twas like so: I was sittin' in this vairy chair it was, asleep, when he crep' up behind an' lp' on ma back. I knew naethin' o't till I found mase' on the floor an' him kneelin' on me. I saw by the look on him he was set on finishin' me, so I said—"

The girl waved her hand at him, superbly disdainful. "Ye' ken ye're lyin', ivery word o't," she cried.

The little man hitched his trousers, crossed his legs, and yawned.

"An honest lee for an honest purpose is a matter any man may be proud of, as ye'll ken by the time ye're my years, ma lass."

The girl slowly crossed the room. At the door she turned.

"Then ye'll no tell me wher he is?" she asked with a heart-breaking trill in her voice.

"On ma word, lass, I dinna ken," he cried, half passionately.

"On your word, Mr. M'Adam!" she said with a quiet scorn in her voice that might have stung Iscariot.

The little man spun round in his chair, an angry red dyeing his cheeks. In another moment he was suave and smiling again.

"I canna tell ye where he is noo," he said, unctuously; "but ablin's, I could let ye know wher he's gain' to."

"Can ye? will ye?" cried the simple girl all unsuspecting. In a moment she was across the room and at his knees.

"Close, and I'll whisper!" The little ear, peeping from its nest of brown, was trembling, approached to his lips. The little man bent forward and whispered one short, sharp word, then sat back, grinning, to watch the effect of his disclosure.

He had his revenge, an unworthy revenge on such a victim. And, watching the girl's face, the cruel disappointment merging in the heat of her indignation, he had yet enough nobility to regret his triumph.

She sprang from him as though he were unclean.

"An' ye' has father!" she cried, in burning tones.

She crossed the room, and at the door paused. Her face was white again and she was quite composit.

"If David did strike you, you drove him to it," she said, speaking in calm, gentle accents. "Ye' know, none so well, whether ye've bin a good f'ather to him, and him no mither, poor f'ather! wether ye've bin to him what she'd ha' had ye' be. Ask yer conscience, Mr. M'Adam. An' if he was a wae aggravin' at times, had he no reason? He'd a heavy cross to bear, had David, and ye' know best if ye' helped to ease i' for him."

The little man pointed to the door; but the girl paid no heed.

"I've think when ye' were cruel to him, ye' an' I, and I, he never left it, because ye' was too proud to show ye' He'd a big soft heart, had David, ben at the parish. M'ny's the time when

mither was alive, I've seen him throw himself into her arms, sobbin', and cry. 'Eh, if I had but mither!' 'Twas different when mither was alive; he was kinder to me then. An' noo I've no one; I'm alone. An' he'd so' and sob in mither's arms, and she, weepin' hersel', would comfort him, while he, wee laddie, would no be comforted, cryin' broken-like, 'There's none to care for me noo; I'm alone, mither's left me and oh! I'm prayin' to be wi' her!'"

The clear, girlish voice shook. M'Adam, sitting with face averted, waved to her, mutely ordering her to be gone. But she held on, gentle, sorrowful, relentless.

"An' what'll ye' say to his mither when ye' meet her, as ye' must soon noo, and she asks ye', 'An' what o' David? What o' th' lad I left wi' ye', Adam, to guard and keep for me, faithful and true, till this Day?' And then ye'll ha' to speak the truth, God's truth; and ye'll ha' to answer, 'Sin' the day ye' left me I niver said a kin' word to the lad. I niver bore wi' him, and niver tri'd to. And in the end I drove him by persecution to try and murder me.' Then maybe she'll look at ye'—ye' best ken hoo—and she'll say, 'Adam, Adam! is this what I deserved fra' ye'?"

The gentle, implacable voice ceased. The girl turned and slipped softly out of the room; and M'Adam was left, alone to his thoughts and his dead wife's memory.

"Mither and father, baith! Mither and father, baith!" rang remorselessly in his ears.

(To be continued.)

Children's Corner.

The Dearest Dolls.

Miss Winifred Evelyn Constance McKee invited our dolls to an afternoon tea.

"But don't bring them all. For my table is small. Just each little girl bring her dearest," said she.

I felt in my heart it would not be polite.

To take my poor Rosa—sae's grown such a fright!

She's blind in one eye, And her wig's all awry,

For she sleeps in my bed with me all through the night.

I explained to dear Rosa just why she must stay.

And I dressed Bonniebell in her finest array;

And then, do you know, When the time came to go,

I snatched up my Rosa and ran all the way!

And—what do you think?—of the six dolls that came

There were four that were blind, there were two that were lame!

And each little mother Explained to some other,

"She's old, but I love her the best just the same!"

**Country Life.
An Essay**

I claim the country is much nicer than the city for many reasons. One of the most important of these is the beautiful scenery.

In the fall, when the leaves are turning yellow, they look beautiful with their bright foliage. All summer long we have beautiful flowers—beginning in May with the May flowers and lillies, and ending in the fall with the gay goldenrod and daisies.

What beautiful sights the woods have any fine day in summer! Who does not enjoy the scenery of country life? There are more sports in the country than in the city. Imagine the fun of going to help work and make maple sugar!

Many city people have never been to a sugaring-off. Who does not enjoy having a romp through the woods gathering flowers? There is nut-gathering, which is lots of fun. Lots of people make money selling their nuts.

The most common nuts are: hickory-nuts, walnuts, chestnuts and butternuts. In the winter, you can have the sport of hunting rabbits and foxes. Football, too, is another good game.

Another advantage of the country is that it is healthier because of the open air. As a rule, the country children are much more sturdy and healthy than the city children. Most cities are dreadfully smoky.

A Cold Finds Your Weak Spot

THE BRONCHIAL TUBES AND LUNGS ARE PROTECTED AGAINST THE EVIL EFFECTS OF COLDS BY

DR. CHASE'S SYRUP OF LINSEED AND TURPENTINE

You can never tell just what form a cold will take, but you may be sure it will search out your weakest organ. With some it assumes a catarrhal nature and affects the head principally; with others it becomes bronchitis and there sets in a hard cough and severe chest pains. Then, again, it often leads to inflammation of the lungs, consumption, pneumonia or may settle on the kidneys or bowels.

Because colds do not always prove serious some people take chances with them, but the risk is great. Dr. Chase's Syrup of Linseed and Turpentine is intended for people who want assurance against serious results from colds.

This great medicine has absolutely proven its extraordinary control over coughs, colds, croup, bronchitis, whooping cough, asthma and all such ailments, and for this reason has a place in the great majority of homes.

Mr. John Clark, coachman, Port Hope, Ont., writes: "Being exposed to all sorts of weather, I frequently catch cold. Last winter I was so bad with a cold that I could not speak above a whisper, and had great pains in the chest. At last I feared it would develop into consumption if I did not succeed in getting proper treatment. A friend advised me to try Dr. Chase's Syrup of Linseed and Turpentine, and I began to improve before I had taken half a bottle. One bottle cured my cold, which, I believe, would have proven very serious if I had not used this medicine."

Dr. Chase's Syrup of Linseed and Turpentine, 25c. a bottle, at all dealers, or Edmanson, Bates & Co., Toronto. To protect you against imitations, the portrait and signature of Dr. A. W. Chase, the famous recipe-book author, are on every bottle.

You cannot possibly have a better Cocoa than

EPPS'S

A delicious drink and a sustaining food. Fragrant, nutritious and economical. This excellent Cocoa maintains the system in robust health, and enables it to resist winter's extreme cold.

COCOA

Sold by Grocers and Storekeepers in 1/2-lb. and 1-lb Tins.

Farm Help

If you want help for the farm for the season or the year, write the Provincial Bureau of Colonization for form of application. No fees.

**Thomas Southworth,
Director of Colonization,
TORONTO.**

Wanted to Buy.
A few general purpose sheep. L. H. Burne, Tillsonburg, Ont.

Does Your FOOD Digest Well?

When the food is imperfectly digested the full benefit is not derived from it by the body and the purpose of eating is defeated; no matter how good the food or how carefully adapted to the wants of the body it may be. Thus the dyspeptic often becomes thin, weak and debilitated, energy is lacking, brightness, snap and vim are lost, and in their place come dullness, lost appetite, depression and languor. It takes no great knowledge to know when one has indigestion, some of the following symptoms generally exist, viz.: constipation, sour stomach, variable appetite, headache, heartburn, gas in the stomach, etc.

The great point is to cure it, to get back bounding health and vigor.

BURDOCK BLOOD BITTERS

is constantly effecting cures of dyspepsia because it acts in a natural yet effective way upon all the organs involved in the process of digestion, removing all clogging impurities and making easy the work of digestion and assimilation.

Mr. R. G. Harvey, Ameliasburg, Ont., writes: "I have been troubled with dyspepsia for several years and after using three bottles of Burdock Blood Bitters I was completely cured. I cannot praise B.B.B. enough for what it has done for me. I have not had a sign of dyspepsia since."

Do not accept a substitute for B.B.B. There is nothing "just as good."

Farm for Sale.

THE farm property of the late James Fair, Clinton, Ont., comprising part of lot 24, con. 1, Hullett (now in Clinton); south half of lot 23 and lot 24, con. 2, Hullett; 10 acres at the north-east corner of lot 24; 10 acres of the south half of lot 25, con. 2, Hullett; 7 acres of lot 35, con. 15, Goderich Township; and 3 1/2 acres of lot 1, Huron Road con., Goderich Township (now in Clinton); containing in all 214 1/2 acres; will be offered for sale at public auction at the Town Hall, Clinton, on WED. the 6th MARCH, 1907, by D. Dickinson, Auctioneer. This farm property makes one of the most valuable and desirable properties for mixed farming to be found in the County of Huron, consisting of arable and pasture lands, with good supplies of water. There are erected on the premises two good frame dwelling houses and four barns in good state of repair. The property is well fenced and drained, and the soil is in excellent condition. There are 25 acres of fall wheat, and all fall plowing is done. The soil is a clay loam. Terms: Immediate possession can be given; 10 per cent of the purchase money down, and balance in 31 days without interest. The executors reserve the right to make one bid. Particulars may be had on application to the undersigned.

JAMES FAIR, NORMAN W. FAIR, } Executors. D. Dickinson, }
 JAMES SCOTT, } Auctioneer.

But speak quick

Will you accept a FREE copy of a book that tells facts you need to know about poultry for profit? Better send for your copy to-day—there are few left, and you want to read this book if you are interested in poultry at all. It is different from any poultry book ever read; it tells plain truths that not many people really know about. Written in plain English, and sensibly illustrated, — interesting, every page of it. Send your name and address on a postcard—the book will come postpaid, free. Send for it to-day—NOW. Address:

When Poultry Pays

Send your name and address on a postcard—the book will come postpaid, free. Send for it to-day—NOW. Address:

The Lee-Hodgins Co., Limited
 5 Pembroke St., Pembroke, Ont.

the smoke arising from foundries and other buildings must make the air less pure than in the country. Most country people farm, and they like it too. In the spring, when the farmer plants his oats, he has the golden grain to reap in the fall. But the city people do not have any grain. Most people have some kind of fruit, such as grapes and peaches; but the city people miss all of these goodies. In the country you have your horses to drive, and do not have to go to the livery stables to hire a horse and rig. All you have to do is to go and hitch up your favorite horse, and you are ready to go along the nice country road. We get milk from the cows, besides the butter and cheese. What would the city people do if it wasn't for the farmers? When you have cats, there are not many mice, so they are the favorite pets. A dog is good to get the cows, and to help when hunting; they, too, are favorite pets. On the whole, I think country life is best.

MARGARET MERRITT,
 Beausville, Ont.

The Letter Box.

A Request from Appleblossom.

Dear Cousin Dorothy,—I want to ask the readers of "The Farmer's Advocate" if anyone can please send me the recitation entitled "Caleb's Courtship."

Please send the recitation to Cousin Dorothy, and I hope she will print it in the next number.

APPLEBLOSSOM (age 12).

An Alphabet Party.

A B C went out to tea,
 D E F G couldn't;
 H I J K said that they
 Could have gone but wouldn't.

L M N O wished to go,
 But were not invited;
 P Q R S answered, "Yes,
 We shall be delighted.

T U V each said, "Ask me—
 It would be so pleasant!"
 W X Y Z went instead,

Now, how many were present?

(Sent by) APPLEBLOSSOM.

Dear Cousin Dorothy,—I live in Sherston, a very nice part of the Dominion. We have in our town: two stores, post office, three churches and schoolhouse, and are very proud to say we get on nicely without a saloon. We live four miles from Crystal Beach, a beautiful summer resort; about three thousand people were cared for there this summer, which makes the good market we were in need of. The place is continually growing. Our Sunday-school always holds its picnic there. We also live six miles from Pt. Colborne, a very pretty town, and Solid Comfort, another pretty summer resort. This place is mostly occupied by Southerners. I think we live in a very lively community. A great many autos run past here in the summer-time, and three of our up-to-date neighbors have automobiles also. I had a ride in one, which I enjoyed very much. The recent snowstorm did us much damage, destroying a number of apple trees.

OLIVE R. SHERK,
 Sherston, Ont.

Dear Cousin Dorothy,—I have never written to the Children's Corner before, but have enjoyed reading the letters of your many cousins, so I thought I would like to be a member. I have a mile and a quarter to go to school, and am in the Third Reader. I have two little kittens; their names are Topsy and Grace.

GERTRUDE BEAM (age 11).

Dear Cousin Dorothy,—I do love reading the Children's Corner better than any part of "The Farmer's Advocate." I go to school and study writing, reading, spelling, geography, grammar, and arithmetic. I am in the Senior Third Class. We have five horses. We also have six cows and nine young heifers.

LORNE F. LEA (age 7),
 Victoria, P. E. I.

Dear Cousin Dorothy,—Our school is on our farm, and I have not very far to go to school. I have two sisters and one brother. He is a very mischievous boy. He has some toy horses and blocks; he makes a stable, and puts his horses in it. But sometimes he thinks that is not

enough, so he gets some buttons, and he says they are chickens. I think they are pretty funny ones.

MURIEL BRYAN (age 9),
 Thorndale, Ont.

Dear Cousin Dorothy,—Papa has taken "The Farmer's Advocate" for over twenty years, and would not do without it. I live on a farm. We have six cows and two calves. Topsy is mine. I generally milk her; she is very kind and gentle, and I can pet her, or do what I like to her, and she does not mind. We have two horses; their names are Barney and Sandy. I am learning to ride horseback. For pets, I have a dog named Fido and a cat named Flossy. They are great friends. I go to high school, and have about a quarter of a mile to go. I study geography, history, reading, spelling, writing, and science. I have four brothers; they are all older than I. I have no sisters. Well, I guess I will close, hoping this will escape that old enemy, the W.-P. B. ELLA McBRIDE (age 11),
 St. Martins, St. John Co., N. B.

Dear Cousin Dorothy,—I have only one sister; her name is Moss. We have two dogs; their names are Tag and Jack. We have three cats; their names are Fluf, Bunny and Katie. I go to school every day. My studies are arithmetic, spelling, history, geography, grammar, reading, memory drawing and writing. I am in the Third Book.

HELENE STODDART (age 10),
 Bradford, Ont.

Dear Cousin Dorothy,—We have five horses; their names are: Brock, Harry, Jack, Bill and Minnie. We have 18 head of cattle and four calves, one dog and a pup, and about a hundred and thirty hens and chickens. I will close with a few riddles, wishing "The Farmer's Advocate" every success:

A farmer had twenty sick sheep and three of them died, how many were left?
 Ans.—Seventeen.

In yonder land there is a house; it is a three-cornered house; no doors or windows in it, but there is meat in it.
 Ans.—Beechnut.

Why is a kiss like a sewing machine?
 Ans.—One sews the seam so nice, and the other seems so nice.

Spell broken-down fence with three letters in it?
 Ans.—Gap.

GERTRUDE CALHOUN (age 10),
 Schomberg, Ont.

Dear Cousin Dorothy,—We have taken "The Farmer's Advocate" for a great many years, and like it very much. I live on a farm of 200 acres. We keep horses, cows, pigs, sheep and hens. For pets, I have two dogs and two cats; their names are: Towser, Skip, Nellie and Topsy. Towser is one year younger than myself. I go to school, and I am in the Senior Third Reader. I follow the Nation River till I am almost at the school-yard. This is my first letter to the Children's Corner, and I must not take up too much space. Wishing "The Farmer's Advocate" every success, I remain,
 MAGGIE GILLESPIE (age 11),
 Ventnor, Ont.

Dear Cousins,—I have only written one letter to your cozy little corner. We are going to have a concert in our school-house Christmas. I have been hunting pieces for it, but did not find very many nice ones. I see the letters are about some pets you have. Well, I have only got one old cat now. I call her Tidy, for she is such a nice, tidy cat. I don't go to school very regularly. I am in the Fourth Class now. Did anyone ever see a cherrybird? I have. It is a pretty little bird. I will close, wishing "The Farmer's Advocate" every success.
 ATKIN P. O., Ont. VIOLET HOLME.

Dear Cousin Dorothy,—We spent our summer holidays on our farm in the country, and there we have twelve cows and some young stock. We had six horses. We have a river running before our house, and have lots of fun swimming in it. I will close with a couple of riddles:

What can go up the chimney down and can't come down the chimney up?
 Ans.—An umbrella.

Why does a hen cross the road?
 Ans.—To get to the other side.
 GORDON ALEXANDER SCOTT (age 11),
 Perth, Ont.

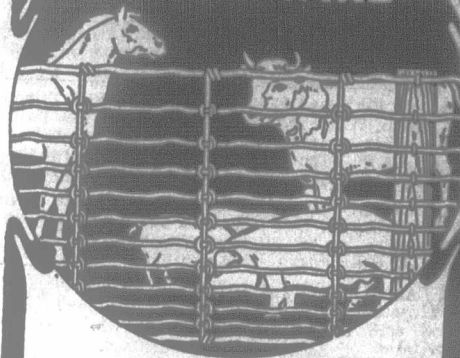
Ring-Bone

There is no case so old or bad that we will not guarantee Fleming's Spavin and Ringbone Paste to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of Fleming's Vest-Pocket Veterinary Adviser. Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durable bound, indexed and illustrated. Make a right beginning by sending for this book. FLEMING BROS., Chemists, 45 Church Street, Toronto, Ontario.

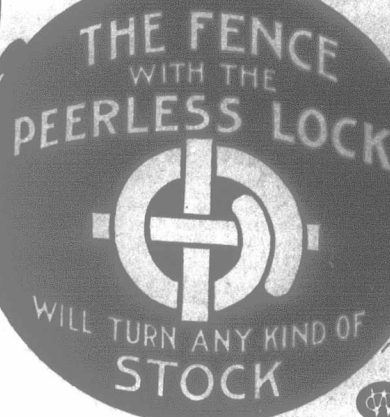
THE PEERLESS WOVEN WIRE FENCE

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.

ALL No 9 WIRE



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 sideways—it's locked to stay locked. That means stability—long wear, almost everything desired in a fence. Stop, pose 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 Hexie Wire Fence Co., Ltd., DEPT. B Hamilton, Ont.



When Writing Mention this Paper.

Red Rose Tea

"is good tea"

Use a package and you will not be satisfied with any other tea.

Prices—25, 30, 35, 40, 50 and 60 cts. per lb. in lead packets

T. H. ESTABROOKS, ST. JOHN, N. B. WINNIPEG.
TORONTO, 6 WELLINGTON ST., E.

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.

FOR SALE—One of the best half-section farms in the best farming district of Saskatchewan. Splendid house, granary, stable, hon-house, etc. Abundance of wood and soft water. 110 acres ready for crop. 3 miles from Girvin. School on same section. Price right. Further particulars address W. Birkett, prop., Girvin, Sask.

FOR SALE—One 48 inch by 16-foot, sixty horsepower Waterous boiler in good order; 125 lb. working pressure. Not large enough for our requirements. Can be seen idle or under pressure. St. Charles Condensing Co., Ingersoll.

FOR SALE—154 acres of valuable farm land in Township of Lobo, county of Middlesex; soil clay loam; 18 acres of well-timbered hardwood bush; never-falling well, with windmill; apple and pear orchards; splendid house and woodshed, having frontage on Main road; 2 mile from school and post office, 3 miles from two shipping stations; good outbuildings. Must be sold to close estate. Possession can be given at once. Mrs. Chas. Turkey, Lobo, Ont.

FARM FOR SALE—190 acres, Dumfries Township, Waterloo County. Seven miles from Arr. Galt nine miles. Good frame house. Large bank barn and stables. Nice orchard. Write The Canada Trust Company, London, Ont.

WANTED—Married man, experienced farm laborer; free house on farm; yearly engagement; must be steady. Answer R. W. Caswell, Star Farm, Saskatoon, Sask.

WANTED—Experienced married man to take charge of stock. Free cottage, firewood and garden. Apply: Box 73, South Woodlee.

WHEAT LANDS—Homesteads. Excellent wheat lands in tested districts. Some where homesteads are yet available, and where good water is easily obtained. Near railroads. Prices low. Terms easy. With the advent of spring values are sure to increase. Correspondence solicited. Geo. S. Houston, Regina, Sask. Box 9.

WANTED—Thoroughly experienced farm hand. Steady and reliable. Good milk r. Married or single. Married preferred. Geo. Oliver, Bright, Ont.

WANTED—Four good farm hands for dairy farm. Wages \$250 a year and board. Also man and wife, the latter to do cooking and kitchen work. State wages expected to G. T. Corfield, Corfield, R. C.

WANTED—Experienced married man to work dairy farm on shares, or to take charge. One with boys to help on farm preferred. Particulars on application to Box 17, Farmer's Advocate, London.

YOUR photo on postal card, in handsome folder, \$1 per doz. Send photo, which will be returned uninjured. J. H. Head, Photographer, Hagersville, Ont.

MONEY IN CANARIES

More profitable than poultry. Experience unnecessary. We give advice free. Our new 50c book, "Money in Canaries," tells all about it. With book we send free, if you name this paper, a 10c packet BIRD BREAD. Also, "How to Kill Birds of Lice," and "Bird Magazine." Send 25c to day, stamps or coin. Refunded if you buy birds from us. Birds shipped anywhere any time. Write us before buying. Address:

COTTAM BIRD SEED
28 Bathurst St., London, Ont.

JERSEY COW, registered, H.B. 7 years old, fresh, \$60; one 4 years old, due to calve in March, \$65, both fine cows, or heifer 2 years old, due to calve in May, same milking strain, \$40. Will only sell one. Take your choice.
G. A. Deakman, Brussels, Ont.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two 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 for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 50 cents.

BARGAINS—35 Single-comb White Leghorn vigorous cockerels. No inbreeding. Write now. Ernest Flindall, Smithfield, Ont.

BRONZE turkeys for sale from extra fine imported hens. Good weights. Francis Docker, Dunnville, Ont.

FOR SALE—Some extra well-bred Barred Rocks. Prices right. Write A. S. Werden, Aeneida Farm, Bethel, Ont.

FOR SALE—A number of pure-bred Barred Rock cockerels and pullets, \$1.00 each. Satisfaction guaranteed or money refunded. Write your wants. W. C. Landsborough, Clinton, Ont.

FOR SALE—Bronze turkeys. Large young toms with brilliant plumage. Chas. W. Bainard, Glanworth, Ont.

FOR SALE—Pure-bred Barred Rocks, cockerels, and Pekin Ducks. Jacob Clemens, Ridgeville, Ont.

HEAVY-LAYING White Leghorn hens and 5000 eggs to go at a bargain. Write for particulars. Jas. L. McCormack, Brantford, Ont.

MAMMOTH Bronze turkeys, bred from imported prizewinning toms and hens. Part of stock from the first-prize Pan-American winners (Hislop's strain). Pairs mated not akin. B. G. Rose, Glanworth, Ont.

MAMMOTH Bronze turkeys, Silver-Gray Dorkings, Barred Rocks, from prizewinners. Pairs not akin. Alfred E. Shore, White Oak, or 560 English St., London.

MAMMOTH Bronze turkeys, bred from imported stock. We have an extra heavy and well-colored lot. T. Hardy Shore & Sons, Glanworth, Ont.

PIGEONS—Rhode Island Reds. Any one having many pigeons or Single-comb Rhode Island Reds for sale, please address, stating price, Mr. Laurence Inn, Grand Meade, P. Q.

SINGLE-COMBED White and Brown Leghorns, Buff and White Wyandottes from prizewinners. Eggs in season. Joseph Rooke & Son, 117 Wellington R. ad. London, Ont.

SURE KILL LICE—How to keep eggs fresh the year round, and chicken cholera cured. These recipes are simple, but will do the work. Price twenty cents each, all for fifty. Ingredients obtained at all drug stores at little cost. Address, Smith Scott, P. O. Box 1008, Station C, Toronto.

SECOND TO NONE—Miller's Barred Plymouth Rocks. For thirty days I will ship to any part of Ontario, express paid, choicest exhibition cockerels for three dollars each, cash. Herbert J. Miller, Lorez P. O., S. Monagan.

237 EGG STRAIN Barred Rock's Cockerels now. Eggs in season. J. R. Henry, Weterdown.

White Wyandottes We have a fine winter-laying strain, with single birds or breeding pens, at reasonable prices. Also prizewinning Shropshire. W. D. Monkman, Ronthead, Ont.

POULTRY PAYS Our Book, "Poultry for Profit" showing 35 best paying varieties mailed for 10 cents. Delavan Poultry Farm, F. E. R. Goetz, Manager, Box 23, Delavan, Wis.

Hatch Chickens with the **EXCELSIOR INCUBATOR** Or **WOODEN HEN**

Simple, perfect, self-regulating. Hatch every fertile egg. Lowest priced first-class hatcher made. GEO. H. STALL, Quincy, Ill.

Send for free Catalogue.

GOSSIP.

The annual meeting of the Canadian A.-A. Association will be held at Brandon, Man., Feb. 20th at 3.30 p. m.; the Canadian Red Polled Cattle Breeders' Association at Brandon, Feb. 21st, 4 p. m., and Brandon Winter Fair, Stallion and Poultry Show, Feb. 19th to 21st.

Mr. S. J. Prouse, Ingersoll, Ont., desires us to announce that he will sell by auction, at his farm, at Ingersoll, on Feb. 13th, 17 Clydesdale mares and fillies, 3 Hackney mares, and 11 Clydesdale stallions and colts. Look for advertisement in this paper next week.

Too late for insertion in this issue, we have an advertisement from J. & W. Russell, Richmond Hill, Ont., offering for sale 12 Shorthorn bulls, ten months to two years old, several of which are from Toronto-winning dams. See the advertisement next week.

SALE DATES CLAIMED.

Jan. 31st.—M. J. McGillicuddy, Kenilworth, Ont., Shorthorns.

Feb. 6th.—J. J. Kitley, Dunkerron, Ont., Shorthorns.

Feb. 7th.—J. M. Gardhouse, Weston, Ont., Clydesdales, Shires, Shorthorns and Leicesters.

Feb. 13th.—S. J. Prouse, Ingersoll, Ont., imported Clydesdales.

Feb. 27th.—Geo. Rice, Tillsonburg, Ont., Holsteins.

March 6th.—Arthur Johnston, Greenwood, Ont., Shorthorns (dispersion).

Volume 52 of Coates' Herdbook of Shorthorn cattle, published by the Shorthorn Society of Great Britain and Ireland, has, through the courtesy of the secretary, been received at this office. It is a bulky volume of 1,325 pages, the largest volume in the series, containing the pedigrees of 3,371 bulls, and of cows to Dec. 31st, 1905, showing that interest in the grand old red, white and roan breed is not diminishing, but rather steadily increasing. The list of breeders having entries in this volume numbers considerably over 800. The address of the secretary is 12 Hanover Square, London, W.

In our advertising columns this week will be found an advertisement of an important auction sale of Shorthorn cattle, which will take place Wednesday, Feb. 6th, the property of J. J. Kitley, of Dunkerron, three miles south of Bond Head, and seven miles from G. T. R. stations, Bradford and Tottenham. This offering consists of some 34 head in number, being the entire herd, except a few aged cows. Mr. Kitley has been careful in selecting his sires for the herd for the last few years, including British Statesman (42547) and Killerby (55951), two excellent imported bulls bred by S. Campbell, Aberdeen, Scotland. The present stock bull is Gladiator—32064—, imported by W. D. Flatt, and was at the head of the imported herd of Mr. Chas. Rankin for three years. He was sired by the Duthie-bred bull, Pride of Fashion, by Pride of Morning, out of Royal Belle, by the great sire, Scottish Archer. His dam was by Sigmund 2nd, out of Sunshine 2nd, by British Flag (58561), a Blythesome, bred by Mr. Marr, and got by the celebrated William of Orange. Gladiator is a bull of exceptionally even build, with remarkably true lines and quality all over. He has proven himself to be an excellent sire, is very active and sure, his calves coming strong and showing a remarkable uniformity of type. Among the females which are equally well bred is the excellent imported cow, Lady Laurier, bred by Chas. Strachan, Aberdeenshire, Scotland. She is a beautiful red, of great quality and substance, a regular breeder, and a good milker. A two-year-old heifer from this cow, and got by the imported bull will be included in the sale, also a bull calf, eleven months old, by the same stock bull. In all, there are twelve heifers and ten very fine young bulls, from seven to twenty months old, all the get of this noted sire. The cows to be sold are all in calf, or have calves at foot, by the imported bull. Parties wishing to fill up their herd with females, or to secure a bull to head the herd, will here be afforded an opportunity rarely met with.

Mr. Wm. H. Gibson, Manager of Sir Geo. Drummond's Huntlywood Stock Farm, at Beaconsfield, Quebec, in sending us photographs of their champion South-downs, illustrated on another page of this issue, writes: "The grand champion wether, over all breeds, grades and crosses, at Chicago, 1906, was sired by Imp. Sandringham 16401, out of Drummond Ewe 447, and was twin-brother to the grand champion wether lamb at Chicago, 1905. The grand-champion wether, one year old, at Chicago, 1905, was out of the same ewe, and she is now in lamb, again to Royal Champion, sweepstakes ram at the English Royal, at Derby, 1905. Our sheep have won the breed championship at Chicago five years consecutively, and the grand championship the last two years. I mail catalogue of Shorthorns. We have the best lot of young bulls I ever saw on one farm. The herd was never in better shape; calves coming on thick and fast."

Mr. L. E. Morgan, Milliken P. O. and Station, on G. T. R., 17 miles north-east of Toronto, Ont., importer and breeder of Berkshire swine and Hampshire sheep, a cut of a group of whose imported Berkshire sows appears in this issue, writes: "I never had a better lot of pigs of various ages, or of better blood, than those I am now offering, among them being imported pigs from the three prize sows lately imported by me from England, and which won prizes at the late Toronto and Ottawa shows. These sows are of the same blood, and closely related to the champion sow at the Royal Show of England, in 1906, a sow which weighed nearly 800 lbs. at 20 months old, and was pronounced one of the longest and best sows ever seen there. I also have the best crop of fall pigs from other imported-bred sows I ever had, got by the noted imported boar, Lucky Hightide, whose sire, Old Hightide, produced the first-prize winners at the Royal four years in succession. I also have some excellent pigs, got by Oakdale Compton (imp.), a Vincent-bred boar of the best Compton blood. He is bred much like the famous Polgate Doctor (imp.), and is a boar of much the same type, being long and low, with good quality. I am satisfied that a visit to my herd will convince those wanting the best class of Berkshires of the most-noted blood living, that the pigs from my imported sows, as well as those from other of my sows, such as Black Girl 10th, a daughter of the \$2,500 Masterpiece; Durham's Matchless 79, my premier sow, a daughter of the silver-medal sow two years in succession at Toronto, etc., etc., that I have what the most critical buyers want."

TRADE TOPICS.

25,000 HELPERS COMING—The Salvation Army has demonstrated during the past four years its reliability as an immigration agency, having brought about 20,000 people to Canada from Great Britain. This season they will bring out some 25,000, chiefly farm laborers. If you require help on your farm this season, write at once to Brigadier Howell, James and Albert Sts., Toronto, Ont., asking for application forms, or use the one appearing in "The Farmer's Advocate" for Jan. 16th issue.

FARM HELP is advertised in this paper by Mr. Thomas Southworth, Toronto, Director of Colonization for Ontario, who writes: "I may point out that when applications are received from farmers stating the kind of man they want, whether experienced or inexperienced, married or single, these applications are placed on file here, and when the immigrants arrive they are examined by the Government officers as to their qualifications, and fitted to the applications as nearly as possible. The immigrants are then furnished with free transportation from Toronto to the station nearest the farm where their services are needed. They are advised here that they will be expected to work a week or more on trial and then make their own agreement with the farmer as to term of service and wages, although it is stated that provided they are satisfactory, the wages paid them will be based on the sum mentioned in the application. The bureau has placed several thousand immigrants with farmers in the past two or three years, and, on the whole, with eminent satisfaction to both parties."

IMPORTANT AUCTION SALE

OF IMPORTED AND CANADIAN-BRED

Scotch Shorthorns Clyde and Shire Mares and Stallions

35 Imported and Canadian-bred Scotch Shorthorns, including one of the best young imported stock bulls in Canada. They represent the Nonpareil, Ury, Maggie, Fairy, Missie, Undine, Minnie, Miss Ramsden, Village Girl and Rosebud strains. Are all in fine condition, and an essentially high-class lot.

8 Imported and Canadian-bred Clyde and Shire fillies (all registered), and 1 Shire and 1 Clyde stallion—yearlings. Also

Imported and Canadian-bred Leicester Sheep

in lamb to a Toronto and London winner,
The property of

J. M. Gardhouse, Weston, Ont.

Will be sold under cover at Weston, on

THURSDAY, FEB. 7th, 1907

Sale at 1 p. m. sharp.

Term cash, unless otherwise arranged for before sale.

This is one of the best offerings ever sold by auction in Canada.

Catalogues. **Capt. T. E. Robson
J. K. McEwen
H. Russell** Auctioneers.

AUCTION SALE

At Maple Hurst Farm, KENILWORTH, on

Thursday, Jan. 31st, '07,

At 1 p. m. sharp.

Consisting of seven bulls, ranging from one to two years old; twenty females, twelve of which are choice young cows of good milking strains, with calf or calf at foot, sired by present stock bull, Prince 61878, by Prime Favorite (imp.), a Marr Princess Royal, and the balance are a choice lot of young heifers, of the thick, mossy type. Also a few matched pairs of road and carriage horses will be offered, and a few pure-bred Yorkshire and Berkshire sows.

Farm: one mile from Kenilworth, seven miles from Arthur, eight from Mt. Forest, on C. P. R. All trains met on day of sale.

M. J. McGILLICUDDY, Proprietor.

Auction Sale of Shorthorns

Three miles south of Bond Head and seven miles from G. T. R. stations, Bradford and Tottenham.

WEDNESDAY, FEBRUARY 6th, 1907,

When 37 head of high-class Shorthorns will be offered, consisting of 12 cows, 12 heifers, 10 bulls, including the stock bull, Gladiator (imp.). Catalogue on application.

Trains met on the morning of sale, Tottenham and Bradford Stations.

COL. J. K. McEWEN, AUCTIONEER.

J. J. Kiteley, Prop., Dunkerron, Ont.

When Writing Please Mention Advocate

Save Your Money

BEFORE ORDERING YOUR YEAR'S SUPPLY of literature, write to The Times Agency, Stair Building, Toronto, for a FREE Specimen copy of THE TIMES WEEKLY EDITION, and full particulars of clubbing offers. Anything published supplied. It will SAVE you MONEY, TIME, and it reduces the risk of non-delivery to a minimum.

Top Buggies

RETAIL at WHOLESALE price until Feb. 28, 1907. Write for particulars.

R. D. Milner, P.O. Box 26, Chatham, Ont.

GOSSIP.

Messrs. Matt. Richardson & Son, of Caledonia, Ont., write: "Our Holstein sale passed off very successfully; had a large crowd. Many of our friends, old customers and buyers, were present. We used our best efforts, and beg to thank 'The Farmer's Advocate' for its efficient helps toward the success of the sale. J. W. Richardson will continue the business with a smaller herd. The idea will be for one of even higher quality. The young stock bull, Sir Pietertje Posch De-Boer, will head the herd. His three nearest dams have official records that average 25.67 lbs. butter in one week, and 87.6 lbs. milk in a day. Among other females, not offered in the sale, are 17 daughters of Johanna Rue 4th's Lad."

TRADE TOPICS.

ROOFING SAMPLES FREE.—Here is an offer which any one of our readers who has a building to roof and preserve, build or repair will do well to read: The firm named below will send you a sample of their Flint-coated Rubber Fireproof Roofing, delivered prepaid, free, if you will simply write a postal to their address, and say you are one of our readers. It will pay you to do this. It will give you a chance to get information about how good roofing—guaranteed roofing—should be made. You can try it for yourself. You'll receive a free book on roofing and also a large mill-work catalogue. Both will show how on any roofing, siding, repair work or building, which you are going to do now, or any time in the future, you can save money. Write for free sample of roofing, free roofing book and free mill-work catalogue to-day. One postal will bring them all promptly. Address: GORDON, VAN TINE & CO., Station D55, Davenport, Iowa.

DR. CHASE'S BUILDING.—An interesting event which took place in Toronto was the laying of the corner stone of the new Dr. Chase 5-story building at the corner of Adelaide and Duncan streets. Little idea of such an extensive business was entertained by Dr. Chase, when away back in the sixties he began to find his practice overriding the bounds of his own State of Michigan and extending into Canada, or even later in 1884, when, in order to supply the Canadian demand for his medicines, he arranged for their manufacture in this country.

Considerable space in the new building will be taken up with the mailing department from which Dr. Chase's calendar almanac is sent to Canadian homes. The weather forecast is prized by many. To add to the value of the book, ample space is allowed for keeping a diary. An annual contest in which \$200 in gold is awarded for the best-kept diary has made this feature of the almanac very popular. If for any reason Dr. Chase's Calendar Almanac for 1907 has not reached your home, it will be cheerfully mailed on request to Edmanson, Bates & Co., Toronto, and on page 27 you will find full particulars about the diary contest.

QUESTIONS AND ANSWERS.

Veterinary.

LICE—WEAK EYES.

1. Horses have lice.
 2. Horse has weak eyes. C. C. M.
- Ans.—1. If the stable is warm, and you can keep them comfortable, clip and wash once every week with a four-per-cent. solution of Zenoleum, heated to 100 degrees Fahr. As soon as the insects cease hatching, discontinue the dressing. If conditions are such that you are afraid to clip, just use the dressing as above.
2. All that can be done is to treat the eyes when they become sore. Keep horse in comfortable stall, excluded from drafts and sunshine. Bathe well, three times daily, with warm water, and, after bathing, put a few drops of the following lotion into each eye: Sulphate of zinc, 10 grains; fluid extract of belladonna, 20 drops; distilled water, 2 ounces. I am afraid he has a constitutional disease called specific ophthalmia, and will eventually become blind from cataract. V.

EVERY HOME NEEDS ZAM-BUK

EXPERIENCES OF HOUSEKEEPERS WHO KEEP IT HANDY.

In every home cuts, bruises, scalds and similar injuries are sure to occur, especially where there are children. In most homes, too, chapped hands, chilblains, eczema, ringworm, ulcers and other skin diseases occur.

For these you need a balm which is pure, herbal, free from mineral compounds, free from animal fat, antiseptic, able to stop bleeding, and which should heal.

Zam-Buk meets all these requirements. Why not prove its merits. Read this:—

Mrs. Everett Brown, of Markham, Ont., says: "Zam-Buk cured some bad bruises on my knee. I also find it excellent for chapped hands."

Mrs. Lizzie Gilmour, of Kingston, says: "I had an ulcerated leg, which became so bad that I could not wear a boot. The foot and ankle were swollen to nearly double their ordinary size, and the pain was terrible. The ulcers spread in a ring all round the limb. Doctor's treatment brought no relief, and at one time it was thought only amputation could end the agony I suffered. Zam-Buk was brought to my notice, and I bought a few boxes. Each box gave me more ease and healed the ulcers. To-day I am quite cured, the limb is sound, and whereas before I could not stand; now I can go up and down steps with ease. I owe it all to Zam-Buk."

Zam-Buk also cures eczema, cold-sores, ringworm, stiff joints, bad leg, sore nipples, boils, abscesses, blood poison, poisoned wounds, etc. Used as an embrocation it cures rheumatism and sciatica, and rubbed well into the chest cures lung troubles, colds, etc. For all purposes to which a household balm is put, Zam-Buk will be found unequalled. All stores and druggists sell at 50c. a box, or direct from the Zam-Buk Co. upon receipt of price. 6 boxes for \$2.50.



GOES LIKE SIXTY
SELLS LIKE SIXTY
\$60
GILSON
GASOLINE
ENGINE
For Pumping, Cream
Separators, Churns, Wash
Machines, etc. FREE TRIAL
Ask for catalog—all sizes
GILSON MFG. CO. LTD. 188 York St., Guelph, Ont.

SEEDS

FOR THE FARM.

Geo. Keith, 124 King St. E., Toronto

Send for 1907 catalogue.



HEREFORDS

JANUARY SALE

A rare chance to improve your herd. Young cows in calf and 1- and 2-year-old heifers. A fine selection at great values and easy terms. Come and see for yourself, or write at once for particulars.

M. D. SMITH, HAMILTON, ONT.

ABERDEEN - ANGUS

Erica and Blackbird families Young bulls and females. All ages. Write:

JOHN UNDERWOOD, GRAFTON, ONT.

DURHAM BULLS FOR SALE

I have three good bull calves for sale, one red and two roans. Clementina, Nonpareil and Broadhooks pedigrees, and sired by such bulls as (imp.) Spicy Count and (imp.) Old Lancaster. All fit for service. Box 558

HUGH THOMSON, St. Mary's, Ont.

Angus Cattle

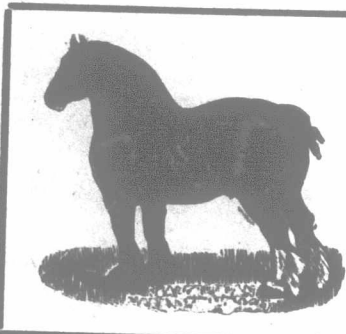
The kind that get market top prices. We have for sale 7 young bulls from 9 to 16 months old; also females all ages. All eligible for the American Herdbook. From good families and good individual merit. J. W. BURT, Aberdeen Farm, Coningsby P.O. 3 1/2 miles from Erin stn., C.P.R.



30 PERCHERONS

Also Shires, Hackneys and Clydes and 12 Percheron Mares (3, 2 and 1 year old) have just arrived with our new importation from Scotland, England and France, of high-class stallions and mares. Many of them prizewinners in their native lands. Bred by the best breeders. Percherons, blacks and grays, weighing 1,500 to 2,000 pounds. Shires at two years old weighing 1,700 pounds. Clydes, bays and blacks, 4 and 5 years old, weighing 1,800 to 2,000 pounds, bred by the best in Scotland. Our Hackneys are bays and chestnuts, combining size, quality and breeding that cannot be beaten. These horses can be seen at Toronto and London fairs, and all for sale at reasonable prices.

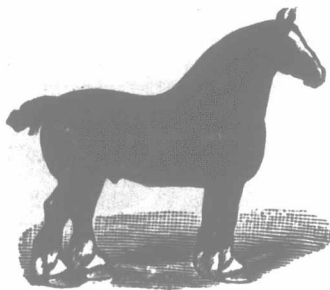
HAMILTON & HAWTHORNE, Simcoe, Ont.
89 miles south-west of Toronto on the G. T. R.



IMP. GLYDESDALES & HACKNEYS

Stallions and fillies of both breeds, representing the best blood of England and Scotland, combining size and quality and faultless action. If in want of something exceptionally choice, come and see me. You will not be disappointed. Prices right.

DUGALD ROSS, Streetsville, Ont.
Write for catalogue.



GRAHAM BROS.

"Calmbrogle," CLAREMONT,

IMPORTERS OF

HACKNEYS and GLYDESDALES

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.



Graham & Renfrew's
GLYDESDALES and HACKNEYS

Our Clydes now on hand are all prizewinners, 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 4483.

GRAHAM & RENFREW, BEDFORD PARK, ONT.

DUNROBIN STOCK FARM

BREEDERS OF

GLYDESDALES, SHORTHORNS and YORKSHIRES

Besides our high-class Clydesdale fillies, we are offering some well-bred SHORTHORN HEIFERS at reasonable money for a quick turnover.

DONALD GUNN & SON, BEAVERTON P. O. & STN.
Farm Three-quarters of a Mile from Station.

SMITH & RICHARDSON,
COLUMBUS, ONT.,

have now on hand a choice selection of Clydesdale Stallions, combining size and quality with straight, true action. Breeding unsurpassed. Individuality unexcelled. Scotland prizewinners. Also a few Canadian-bred stallions, and imp. and Canadian-bred fillies.

Long-distance 'Phone Myrtle Station, C. P. R.
Brooklin or Oshawa, G. T. R.



WM. COLQUHOUN, Mitchell, Ont.

I have on hand for sale

10 Clydesdale Stallions

Lately imported, from 2 to 8 years of age. Carrying Scotland's richest blood, noted winners, noted sires; weighing a ton and over, with style, quality and true action. Come and see them.

W. C. KIDD, LISTOWEL, ONT.

Importer of Clydesdales, Shires, Percherons, Belgians, Hackneys, Standard-breds and Thoroughbreds

of highest possible quality and richest breeding. Have sold as many stallions the last year as any man in the business, with complete satisfaction in every case. I have always a large number of high-class horses on hand. My motto: "None but the best, and a straight deal." Will be pleased to hear from any one wanting a rare good one. Terms to suit. Long-distance 'phone. LISTOWEL P. O. AND STATION.

QUESTIONS AND ANSWERS.
Miscellaneous.

WORMS IN HORSE.

I have a horse that has worms; they are black with a white tail, and are about two inches long. Would you please give treatment?
A. J. C.

Ans.—Take one and a half ounces each of sulphate of copper and sulphate of iron. Pulverize and mix, and make into a dozen powders. Give a powder morning and evening in his feed, till he has taken the whole 12 powders, and then follow up with a purgative ball of eight drams aloes, which your druggist will prepare for you.

SOW EATING POULTRY.

Regarding second article in "Miscellaneous" column, page 77, in our Jan. 10th issue, a reader writes: "If owner of sow would give her three or four lbs. of salt pork cut in small pieces in her feed for first dose, and after give whatever scraps of salt meat he has around the house, she will have no desire for fresh meat, and his fowl and cats may roam about safely. Neither need he have any fear of her eating the young pigs when they arrive. I would also advise him to keep a close watch at farrowing time, and remove the afterbirth from pen as soon as possible."

BREED OF FOWLS.

What is the best strain of fowl for eggs and market?
M. B. B.

Ans.—Barred, White or Buff Plymouth Rocks, White or Silver-laced Wyandottes, Buff or White Orpingtons, or Rhode Island Reds. Any of these will answer well. What one is best is yet a question impossible to answer positively. One man has best results with one variety; another has a different choice. Strain and individuality account for this wide diversity of opinion. There are other excellent breeds that we have not mentioned, but we confined our list to a few of the very best.

HIRED MAN LEAVING.

I hired a man last May for a year. Now, he wishes to leave me after working eight months. Can I compel him to put in his time, or am I compelled to pay him when he leaves for the time he has worked?
EMPLOYER.

Ans.—You cannot legally compel him to serve the balance of time; but if he should leave your employ before his time is up you need not pay him as much as the full contract rate would amount to for the time worked, but only what would be reasonable, having regard to all the circumstances, and such reasonable sum ought to be tendered him when he comes to you for a settlement.

STRAWBERRY CULTURE.

1. Can you give me full instructions in strawberry culture—what kind to plant, how to plant, what time in the season? The land I purpose using is clay. Do you think it too much for a farmer to attempt, besides his other work?
R. K.

Ans.—1. The variety which, more than all others combined, is grown around London is the Williams. As other varieties might suit your soil and location better, it would be well to make enquiries of local growers. Send for bulletin on the subject, to Agricultural College, Guelph. Planting can be done as early in spring as the ground can be worked, or as late as the early part of June, or any time between. Some growers throw up drills in the fall, three feet wide, and, when ready for planting in spring, run a one-horse cultivator deeply along top of drill, and use the hands to make a hole, and at once to cover and press firmly into the earth each plant, leaving, of course, the leaves and crown above ground. Level culture is more commonly practiced, and in such case the ground is thoroughly worked, and plants are set in a light furrow, or in openings made with a spade, the earth being tramped or pressed firmly about each plant. Rows are from three to three and a half feet apart, and plants in the row at a distance of twelve to eighteen inches. Cultivate and keep clean the first season; take crop off the second, and at once, if possible, plow the ground, and put in a catch crop.

2. Strawberries involve considerable work, especially in the picking and marketing season; but you know best what you can do.
T. B.

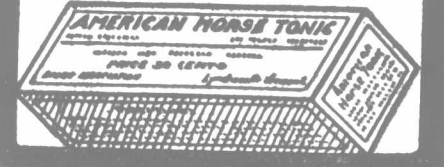


GOOD LIFE

That's what horses have that are normal and not troubled with disease. If your horse is dull and has no appetite, he is out of condition and needs help. A few doses of

American Horse Tonic

will put him in the pink of health very quickly and will take away all dullness and heaviness. It is a powerful tonic for the blood and nerves, stimulates the appetite, assimilates the food and invigorates the internal organs; cures coughs, colds, lung and bowel troubles, worms, and puts new life and strength into the horse. Horse Tonic is not a cure-all, but a specific for certain ailments of horses and is for horses only. As an every-day remedy it is a positive necessity to the horse owner. Sold by dealers; if you cannot supply you, we will send it direct. Write today for free "HORSE COMFORT" book; if you keep cows ask for book "THE COST OF A LOST COW." Both books free. DAIRY ASSOCIATION CO., Mfrs., Lyndonville, Vermont, U. S. A.



Bawden & McDonnell
EXETER, ONT.,

Have arrived home from Scotland with another importation of



12 Clydes and 2 Hackneys

selected from the best breeders in Scotland, and sired by Baron Frise Montrose Mac and other noted horses. We have in all about 20 stallions in the barn—Clydes, Shires and Hackneys. Intending purchasers will do well to inspect, as these horses are all high class, and cannot be beat for true breeding quality and size.

ABSORBINE

Removes Bursal Enlargements, Thickened Tissues, Infiltrated Farts, and any Puff or Swelling. Cures Lameness, Allays Pain without laying the horse up. Does not blister, stain or remove the hair. \$2.00 a bottle, delivered. Pamphlet 1-C free. ABSORBINE, JR., for mankind, \$1.00 bottle. Cures Synovitis, Weeping Snew, Strains, Gouty or Rheumatic Deposits, reduces Varicose Veins, Varicocele, Hydrocele. Allays pain. Book free. Genuine mfd. only by

W. F. Young, P. D. F., 73 Monmouth St., Springfield, Mass. Canadian Agents, Lyman, Sons & Co., Montreal.

Imp. Clydesdale Fillies!



Have now on hand about a dozen, nearly all imported. A high-class lot and very richly bred. Combine size and quality, and all in foal. Also one-year-old stallion. Write me, or come and see them.
Nelson Wagg, Claremont P. O. & Sta.

ALEX. YOUNG,
Glanford, Ont.,

LIVE-STOCK AUCTIONEER

Pedigreed Stock a Specialty.



DR. McGAHEY'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, \$1.50 per bottle. The Dr. McGAHEY Medicine Co., Kemptville, Ontario.



Tudhope Sleighs

You don't pay a cent extra for the 56 years' experience that goes into Tudhope Sleighs. You don't pay a cent extra for a dozen little improvements that mean extra strength and service. You pay only for what the BEST MATERIALS and WORKMANSHIP are worth. Every Tudhope Sleigh is sold with a guarantee that has been lived up to for 56 years.

TUDHOPE No. 67
This is an all-round, serviceable sleigh. Built for rough roads—an easy, comfortable runner for hard driving. Write for free booklet showing different Tudhope styles.

THE TUDHOPE CARRIAGE CO., Ltd. • ORILLIA, Ont. 11

Clydesdale and Hackney Stallions!

Dalgety Bros. have at their stables, London, Ont., a choice selection of the above. If you want a good one, come and see them. Prices right to make room for another importation. A second consignment of choice big Clyde fillies to be sold by auction about the middle of February, advertisement of which will appear in this paper. Address:

DALGETY BROS., GLENCOE, ONTARIO



T. H. HASSARD

Millbrook, Ont.

Has on hand 40 head of Clydesdale, Percheron and Hackney stallions, and 25 Clydesdale fillies, representing Scotland France and England's richest prize-winning blood and most noted sires. An essentially high-class lot. Will be sold on terms to suit purchaser.

MILLBROOK P.O. AND STATION
Long-distance 'Phone.



WESTON, ONT., IMPORTING BARN

J. B. Hogate, Proprietor.

I now have left in my barns for sale: 2 Clyde stallions, 5 years old, nearly a ton each; 2 Shire stallions, 4 years old, nearly a ton each; and 2 Percherons, 3 and 4 years old, black; 2 Hackneys. These stallions I will sell at one-half their value to make room for my next importation. I also have 5 2-year old Clyde fillies, first-class, that I will sell cheap to clear up my next importation of 10 Clyde stallions and 20 Clyde fillies will arrive about February 15th. Will save you money to get prices before you buy elsewhere. Write:

J. B. HOGATE, WESTON, ONTARIO.

40 WAVERLY HACKNEYS 40

Imported Stallions and Fillies.



Every one a high-class actor and a show animal. Splendidly-matched pairs and singles. Positively the highest class lot of Hackneys to be found on any one farm in America. All ages. Also 4 imported Clydesdale fillies. A big flashy lot, full of style and quality.

ROBERT BEITH,
Bowmanville P. O. and Station.
Long-distance 'Phone.

Imported Clydesdale Stallions and Fillies

My new importation comprises 3 stallions, two 2 years old and one 1 year old, by Everlasting, Baron Buchylvie and Ascott, and 5 fillies, from 1 to 4 years old, by Baron's Pride, Elator, Favorite's Heir and Ascott. They are a high-class lot, as good as ever crossed the water. Come and see them. All are for sale at living prices.

A. AITCHISON, Guelph P.O. and Sta.

FARM FOR SALE

a never-failing spring; a large orchard; farm is well fenced. For further particulars apply to

115 acres, 3 miles from the City of Brantford, 4 miles from the town of Paris, in the Township of Brantford, Co. of Brant. This is one of the best farms in the county. Clay loam, rolling enough to make it self-draining. First-class two-story brick house of 10 rooms; out-buildings all new; cattle barn, 40x64; modern stables, with water in every stall; horse barn, 50x28; pigeon 23x50; implement shed, 54x22;

T. A. COX, Box 71, Brantford, Ont.

THE BISSELL DISK HARROW

Has a tremendous capacity for work on hard, tough land. It cuts and turns the soil, hitches well back, and pulls easy. This machine gives thorough cultivation. The construction is simple, strong and compact, and way ahead of competitors. None are genuine without the name "Bissell." 102

Ask Dept. W for full particulars.



T. E. BISSELL, ELORA, ONT.

QUESTIONS AND ANSWERS. Miscellaneous.

INTEREST ON SCHOOL FUNDS.

In our school section, one of the trustees acts as secretary-treasurer, and is allowed \$10 for his services. He draws the supplies early in January, and deposits the money in the bank. Does the interest which comes from this deposit belong to the trustee or the section?

Ontario. **RATEPAYER.**

Ans.—To the section.

COST OF CEMENT-BLOCK HOUSE.

Could any of your readers tell me what it would cost to build a two-story cement-block house, size 24 x 28, walls to be 19 feet high from basement. I can build cellar wall with stone. Lime is 26c. per bushel; cement, \$2.50 per bbl. I just want to know what the wall will cost, that is, for making blocks and laying them and finding cement. I would like to build an L-shaped house, so there would be a veranda and balcony, if you could give me a plan of a nice little house.

D. H. T.

Ans.—Will some of our readers, who have had experience with cement-block house building, oblige our subscribers generally, as well as the enquirer, by sending us the information asked for. Readers who have preserved their back numbers of "The Farmer's Advocate" will find in them, during the past couple of years, many useful plans from which designs can be worked out to suit particular cases.

PROPOSED HOGPEN PLANS.

What do you think about the enclosed plan for a hogpen, built with cement blocks, cement partitions, cement troughs, and the doors are so hung that they don't obstruct the passage when opened? Hydrant is to be fed by waterworks.

W. D. S.

Ans.—Our experience and observation is not favorable to the stone or solid-cement-concrete wall for hog houses, but the cement blocks being hollow would doubtless be somewhat better. We would, however, recommend a low concrete wall, say to one foot above ground, and then double-board wall with paper between, if greater warmth is desired. Cement floors, when kept regularly cleaned, like any other stable, dry and well littered, we have found quite satisfactory, and the cement troughs, if well made, are more durable than wood. We would prefer wooden partitions to those suggested. The windows shown in the proposed plan are too few and too small, and there is only one small ventilator on the peak of roof. Otherwise, we presume, the proposed plan will answer the purpose for which it is intended.

VALUE OF BUSH — BEAUTIFYING FARM.

Have read a great deal on forestry of late. I have twenty acres of hardwood bush, twelve of which is growing up thickly with maples, the average size of the trees likely to kill out the smaller ones being four inches. All twenty acres is excellent wheat land, and slopes to the south on north side of the farm. Can you show me where the money is in letting it remain in bush? Can you direct me to any authority in regard to beautifying farms by laying out lanes, lawns, farm buildings, and planting trees, all to best advantage?

F. G. A.

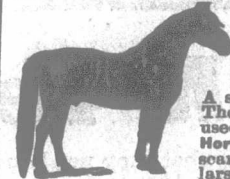
Ans.—1. Twenty acres of good agricultural soil will give greater returns in producing food crops than in wood crops, if it were simply a question of managing and handling such a limited area. However, many farmers are finding that on 100- and 200-acre farms they are limited in the amount of land which can be profitably managed under our system of intensive farming in Ontario, owing to labor and other problems. Do not clear the twenty acres unless you feel you must have more arable land. The wood-lot will insure you against a coal famine at any time, and is always directly or indirectly giving some revenue to the owner.

2. The most practical book on laying out lawns, farm grounds, etc., is "Landscape Gardening as Applied to Home Decoration," by Maynard, published by Wiley & Sons. E. J. ZAVITZ, O. A. C.

Note.—The volume referred to may be ordered through this office.—Ed.

HORSE OWNERS! USE

GOMBAULT'S CAUSTIC BALSAM.

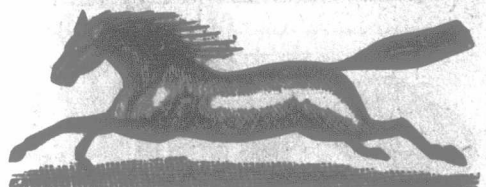


A safe, speedy and positive cure. The safest, best BLISTER ever used. Removes all bunches from horses. Impossible to produce scar or blemish. Send for circulars. Special advice free.

THE LAWRENCE-WILLIAMS CO., Toronto, Canada

The Repository

BURNS & SHEPPARD, Props.



Cor. Simcoe and Nelson Sts., Toronto

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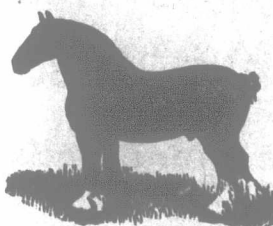
Horses, Carriages, Buggies, Harness, etc., every Tuesday and Friday, at 11 o'clock.

Special Sales of Thoroughbred Stock conducted

Consignments solicited. Correspondence will receive prompt attention.

This is the best market in Canada for either buyer or seller. Nearly two hundred horses sold each week.

Shire Horses



We breed the very best and soundest, which from birth are kept in their natural condition, neither forcing nor overfeeding for showing purposes.

Canadian buyers visiting England are invited to call and see what we have.

No fancy prices, and all delivered free Liverpool landing stage. Correspondence invited. am

Station: Althorp Park, L. & N.-W. Ry.

JOHN CHAMBERS & SONS,
Holdenby, Northampton, England

Clydesdales and Percherons

I have two Clyde stallions, by Prince Thomas and Baron's Pride, 3 and 5 years of age, a big flashy quality pair, and seven Percherons, 3 and 3 years of age. Nothing better ever imported in the country. Will be sold on a small profit. Come and see them.

T. D. ELLIOT, Belton P.O. and Station, C.P.R.

SHETLAND PONIES!

P. McCullough & Son Breeders and importers of Shetland ponies, Markdale, Ont. We showed 8 ponies at Toronto Exhibition in 1906, and got 8 prizes: 3 firsts, 4 seconds and 1 third. All our ponies are imported. Our stallion, Foxglove, took first prize at Toronto. Our mare, Bossie, took first prize, and their foal, Bruce, took first prize also. Good accommodation for mares sent from a distance to breed. Ponies for sale. Our address: Markdale P. O., Ont.

We Will Import Welsh Ponies and Shropshire Sheep.

Write for terms and prices. See Gossip, page 1567
Lloyd-Jones Bros., Burford, Ont.

No more blind horses — For Specific Ophthalmia, Moon Blindness and other sore eyes. BARRY CO., Iowa City, Iowa, have sure cure.

LADIES

Get what you want by writing for our Catalogue. Rubber Goods of every description, Toilet and Sick Room Supplies, Drugs and Patent Remedies. We sell fifty per cent cheaper than any other house.

The F. E. KARN CO., Limited
Canada's Largest Drug House
Cor. Queen & Victoria Sts., Toronto

BROOKS' NEW CURE FOR RUPTURE!

Brooks' Appliance. New discovery. Wonderful. No obnoxious springs or pads. Automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lymphol. No lies. Durable, cheap. Pat. Sept. 10, '01. SENT ON TRIAL. CATALOGUE FREE.

C. E. BROOKS, 3129 Brooks' Bldg., MARSHALL, MICH.

Men Wanted

to advertise and introduce our stock and poultry compounds to farmers and dealers. Work during spare time or permanently. This is an exceptional opening for a hustler. Write for particulars. GOLDEN ORBIT CO., 46 BARRINGTON STREET, LONDON, CANADA.

It Tells at the Pail

Give the cows what they need and they will give you what you want. No mystery about it. We don't claim to balance the ration, but we do claim to improve digestion by supplying the animal with exactly what the noted medical colleges and authorities claim the animal needs to increase production. No one can doubt that all growth depends upon digestion—we know that only about fifty-five per cent. of the food of a healthy animal is digested. What the average animal digests we don't know—but Dr. Hess Stock Food will make every cow, steer and hog digest the largest possible amount of food and convert it into profit. If we fed a cow or steer for the same purpose we feed ourselves, they perhaps would not need a tonic continuously. But we make it a business to overfeed the steer, crowding him to an early market, and that's why they should have something to aid digestion.

DR HESS STOCK FOOD

the medicinal stock tonic and prescription of Dr. Hess (M.D., D.V.S.) is just what the overfed animal needs. It does not supply additional protein to make bone, muscle, etc., but it does make the food of the farm produce the maximum amount of growth and milk production, besides curing and preventing stock diseases.

Professors Quittman, Winslow, and Finlay Dm, the most noted medical writers of the age, tell us that bitter tonics improve digestion, iron makes blood and the nitrates assist nature in expelling poisonous material from the system. These ingredients make up Dr. Hess Stock Food—isn't this pretty strong proof? But besides this every pound is sold on a written guarantee.

100 lbs. \$7.00 25 lb pail \$2.00

Smaller quantities at a slight advance. Duty paid. Where Dr. Hess Stock Food differs in particular is the dose—it's small and fed but twice a day, which proves it has the most digestive strength to the pound. Our Government recognizes Dr. Hess Stock Food as a medicinal tonic, and this paper is back of the guarantee.

Free from the 1st to 15th of each month—Dr. Hess (M.D., D.V.S.) will prescribe for your ailing animals. You can have his 96 page Veterinary Book free any time for the asking. Mention this paper.

DR. HESS & CLARK, Ashland, Ohio, U. S. A.

Also manufacturers of Dr. Hess Poultry Pan-a-cia and Instant Louse Killer.

INSTANT LOUSE KILLER KILLS LICE.



QUESTIONS AND ANSWERS. Miscellaneous.

A HARMLESS CONDIMENT.

What would you think of a stock food that a cow could eat five pounds of at once and it not be affected in any way?

E. E. T.

Ans.—We should say that it possessed the chief quality of most such "foods" in being comparatively harmless.

WANTS LIGOWO OATS.

Will you kindly put me in communication with someone having Ligowo oats for sale?

J. D. B.

Ans.—Correspond with the seedsmen who annually advertise in these columns. Farmers having superior seed oats for sale could use our "Want and For Sale" column to excellent advantage. The cost is only three cents a word for each insertion, and a sufficient announcement to draw business can be put in for 75c., or less. Try it.

GASOLINE—HORSE-POWER.

1. Is there any difference in an American (U. S.) horse-power and a Canadian horse-power in all kinds of engines?
2. Does the horse-power vary in gas, gasoline, steam, etc., engines?
3. What does gasoline weigh per gallon, and does the weight vary with the different grades?
4. Is there any danger of injuring the cylinder of a gas or gasoline engine by letting the water get too hot, or is it better to keep it cold?

A CONSTANT READER.

Ans.—1. The horse-power as Watt determined when he invented the steam engine was the energy required to lift 33,000 pounds one foot per minute, or the equivalent thereto. These figures hold good in ratings of steam power, water power, electricity, or gasoline.

2. It is generally conceded that gasoline, with a specific gravity of .76, will give about 15 per cent. greater power than illuminating gas in the same-sized engine cylinder.

3. The weight varies according to grade, but 7 pounds to the gallon is the standard quoted to us by a local oil company.

4. The water should pass from the cylinder at 132 degrees F. This will give the best results with gas or gasoline engines. Should the water become much hotter, the tendency will be to burn the lubricating oil from the cylinder, though with special grades of gas-engine oil, the manufacturers claim there will be no trouble in lubricating their cylinders.

ADMINISTERING AN ESTATE.

A died without a will, leaving a widow, six daughters and one son, the eldest, living in the United States for the last thirty years. A left a small amount of money in the bank, with the understanding that if he died his youngest daughter or her husband could draw the money out for his widow; but when they applied for it at the bank, their names were not on the book. A's youngest daughter went to a lawyer to see what could be done. He advised her to get her mother, or one of the family, to act as administratrix, and get the money out. A's widow not being able to act, asked her youngest daughter to act for her. She did so, and got the money out. Her lawyer also got out a paper for the rest of the sisters and brother to sign, stating that they were satisfied that she had paid the money over to her mother. All signed but the brother. She is not at liberty to pay the money over until he will sign.

1. Could there be a paper got out for her mother to sign, showing that she received the money, and do away with the first paper?

2. Would it clear the daughter in case of trouble after the mother's death?

3. Can the children claim a share, the amount being less than three hundred?

4. Can the daughter charge for acting as administratrix?

5. If so, how much?

6. If a paper signed by widow would do, would it have to be got out by a lawyer, or could anyone write it out?

Ontario. SUBSCRIBER.

Ans.—1 and 6. No.

2. No.

3. Yes.

4. Yes.

5. Just what would be a reasonable compensation for the services rendered, there is no fixed allowance.

Sunnyside Herefords
Present offering: 18 bulls, serviceable ages. Cows safe in calf or calves at foot or open heifers. Younger stock carrying the blood of the great March On and Protector. Prices within reach of all.
ARTHUR F. O'NEIL, Maple Grove, Ont.

BROXWOOD HEREFORDS.
A few choice bull calves from my imported stock.

R. J. PENHALL, NOBER P. O., ONT.
FOREST VIEW FARM HEREFORDS
Four bulls from 8 to 19 months old; prizewinners and from prizewinning stock. Several heifers bred on the same lines; choice individuals for sale.
JOHN A. GOVENLOCK, Forest Sta. and P.O.

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.

Choice Shorthorns
FOR SALE: 2 bull calves, 2 yearling bulls, 2 yearling heifers and 1 cow, in natural breeding condition. For particulars apply to
J. G. DAVIDSON, Manager Sir Wm. Mulock's Farms, Armitage P. O.

Huntlywood Shorthorns.
Young bulls for sale. The best lot we ever had, by imported Cicely's Pride (78594), out of imported dams. Broad-hips, Lavenders, Lancasters, etc. Prices reasonable.
W. H. GIBSON, Manager, Huntlywood Farm, Beaconsfield, Que.

Maple Hill Stock Farm Scotch Shorthorns—A special offering of a red bull calf of Missie family, sired by Rustic Chief (imp.) = 40419 = ; also some choice females by Wanderer's Star = 48585 = , and Lucerne (imp.) = 50063 = . WM. R. ELLIOTT & SONS, Guelph, 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 'phone. Wm. Smith, Columbus P.O. Brooklyn & Myrtle Sts.

Shorthorns for Sale—Five choice bulls, all from imp. sire, and three of them from imp. dams; also females of all ages Scotland's Fame (imp.) at head of herd.
ALEX. BURNS, Rockwood P.O. and G.T.R. Sta.

FARMER'S ADVOCATE "Want and For Sale" Ads. bring good results. Send in your ads. and you will soon know all about it.
The Wm. Weld Co., Ltd., London, Ont.

"GLENORO"
Shorthorns and Lincolns
Imp. Marr Roan Ladies, Missies, Broadhooks, Ramsdens, and Urrys Choice individuals. Winners at Canada's leading fairs. One hundred head of grand Dudding-bred Lincolns. Unsurpassed for size, quality and fleece. Long-distance 'phone.
A. D. MCGUGAN, Rodney, Ont. Glenoro Stock Farm.

A. EDWARD MEYER
Box 378, Guelph, Ont.
Offers for sale, at prices you can stand, young SHORTHORN BULLS
Four of them from imported sire and dams Several cows with heifer calves at foot by imp. Scottish Hero, and a few yearling heifers. All are of the choicest Scotch breeding. Write, or heifer come and look them over.
Long-distance 'phone in house.

SHORTHORNS & BERKSHIRES
For Sale: Six extra fine young bulls, some belong to grand milking strains. Also a fine lot of young sows, bred to farrow in March and April, and a grand lot of young sows and boars from three to five months old.
B. J. PEARSON, SON & CO., MEADOWVALE, ONT.
Stations: Streetsville and Meadowvale, C. P. R.

GREENGILL HERD of high-class SHORTHORNS
We offer choice Scotch bulls and females, representing such families as Duchesse of Gloster, Village Girl, Rosebud Orange Blossom, Mysie, Victoria, and other popular families, either imp. or Canadian-bred.
R. MITCHELL & SONS, Nelson P.O., Ont.; Burlington Junc. Sta.

KENWOOD STOCK FARM. SHORTHORNS.
Headed by (imp.) Jilt Victor = 45187 = . Offerings are two bull calves, an 11-months Miss Ramsden, from imp. sire and dam; a 12-months Missie, by Blythesome Ruler, and other bulls; also heifers of choice breeding. A few choice Berkshire pigs just off the sow.
HAINING BROS., Highgate, Ont. Kent Co.

Spring Valley Shorthorns
Offer some nice young heifers and cows in calf and with calves at foot; also two nine months' bull calves, both very choice, sired by Imp. Bapton Chancellor. Prices reasonable. Write, or come and see them.
KYLE BROS., Ayr, Ontario.

Oak Grove Shorthorns—My present offerings are two bull calves, one heifer calf from imp. cows, got by Nonpareil Duke (imp.). They are a good lot. Prices right to suit the times.
W. J. ISAAC, Harwood, Ont.

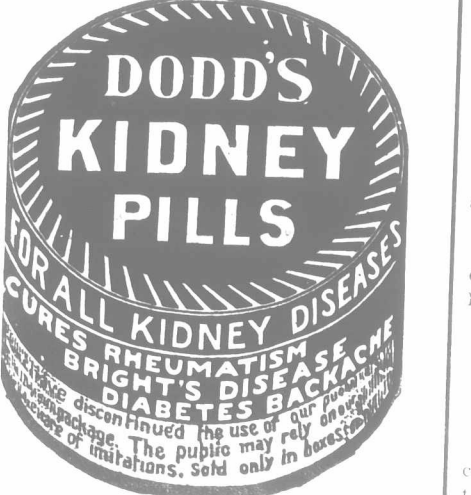
Shorthorns Stamford's English Ladies, Mildreds, Marthas, Nonpareils. 3 choice bulls 14 months old. 2 heifers 2 cows. Breeding unsurpassed. Canadian and American registration.
F. W. EWING, Salem P. O., Elora Station.

John Gardhouse & Sons,
Importers and breeders of Scotch Shorthorn cattle, Shire and Clydesdale horses and Lincoln sheep. Just now we are offering a few extra choice heifers—show stuff among them; also three rare good young bulls, bred from imp. Highfield P. O. Weston station 3 1/2 miles. Telephone.

SUNNYSIDE STOCK FARM
For sale: A number of young SHORTHORN BULLS, red and roan, from imported sire and dams; good enough to head pure-bred herds. Apply: JAMES GIBB, Brookdale, Ont.

SHORTHORNS.
Just closed out the season's crop of bulls of breeding age, but have a few very nice youngsters coming up. Anyone wishing a stock bull from the noted Derby (imp.), send orders ahead, as they are all picked up as soon as ready.
W. J. SHEAN & SON, Box 856, Owen Sound, Ontario.

Lord Salvesen, in an address at Edinburgh, recalled the old days when human life was held very cheap and judges frequently indulged in levity when life was at stake. On one occasion Sir Francis Bacon was "mightily importuned" by a malefactor to save his life. All appeals failed, and the culprit at length pleaded for mercy on account of his kindred. "Your name," said he, "is Bacon, and my name is Hog, and in all ages Hog and Bacon are so nearly kindred that they are not to be separated." "Aye, but," replied the judge, "you and I cannot be kindred except you be hanged, for Hog is not Bacon until it be well hanged."



10 High-class Scotch Shorthorn Bulls.

10 High-class Scotch Shorthorn Heifers.

No herd in America can offer a better selection of young cattle than these. Our prices are consistent with quality.

One black yearling Clyde Stallion and Yearling Filly also for sale.

R. A. & J. A. WATT,

Elora Station, G.T.R. & C.P.R.

Salem, Ontario.

VISITORS ALWAYS WELCOME.

WESTSIDE SHORTHORN HERD AND BORDER LEICESTER FLOCK.

All Registered in the Herd and Flock Books of Great Britain. We invite all interested to inspect the cattle and sheep on this farm. The Shorthorns are long-tried families, tracing to the pioneer herds of Scotland through channels of repute. The Border Leicester flock is one of the oldest in Scotland, and embraces blood of the highest breeding. Selections for Sale. Visitors from the States and Canada will be cordially welcomed.

A. Cameron & Sons, Westside Farm, Brechin, Scotland.



Special Offering of Scotch SHORTHORN BULLS

2 just past two years old; 15 just over one year old; 7 just under one year old.

The best lot we ever had to offer in individuality and breeding, and prices are right. Catalogue.

John Clancy, Manager. H. CARGILL & SON, Cargill, Ont.

AT "MAPLE SHADE"

Our young bulls are the best that our herd has ever produced. We can furnish Cruickshank bulls of high quality to head the best herds, and some that should produce the best prime steers. We have a bull catalogue. Send for one.

JOHN DRYDEN & SON, Brooklin, Ont. Stations: Brooklin, G.T.R. Myrtle, C.P.R. Long-distance telephone.

PURE SOOTH

SHORTHORNS

Offering for December and January: Imp. Scottish Pride = 36106 =. 3 yearling bulls from imp. cows. 12 young bulls from 8 to 14 months also from imp. cows. 10 imp. cows with calves at foot or safe in calf 10 home-bred cows with calves at foot or in calf 25 heifer calves, yearlings and 2-year-olds. 20 Shropshire ewes (bred). 2 imp. Yorkshire sows, due to farrow in March 7 boars and 10 sows, 4 and 5 months old. Catalogues on application. Our farms are 1/2 and 1 1/2 miles from Burlington Junction, G.T.R. Long-distance telephone in residence.

W. G. PETTIT & SONS, Freeman, Ont.

SHORTHORNS

Imp. Keith Baron 36050. 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.

CLYDESDALES

Just now: One pair of matched geldings 5 and 7 years old; show team.

JAS. McARTHUR, Goble's, Ont.

Clover Lea Stock Farm

SHORTHORNS

FOR SALE: Choice bull calves by Golden Cross (imp.). All dark roans. Some from imported sire and dam. Visitors met at Ripley station.

R. H. REID, PINE RIVER, ONT Ripley Station, G. T. R.

Pleasant Valley Shorthorns

We are offering 7 high-class young bulls, by (imp.) Old Lancaster = 50068 = and out of imp. and Canadian-bred cows, of good Scotch breeding; also several young cows and heifers. Correspondence solicited.

GEO. AMOS & SON, Mofat, Ontario Farm 11 miles east of Guelph, on C.P.R., one-half mile from station.

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. Beaucamp. Prices very reasonable. DOUGLAS BROWN, Agr P.O. and Station

Queenston Heights

SHORTHORNS

Special offer now: Several choice Scotch bulls, two of which are show bulls, a roan yearling and a red two-year-old by Derby (imp.) = 32059 =. Their dam is Bessie's Maid = 47779 =, by the great sire Royal Prince = 26062 =. There is no better breeding. Also some young cows and heifers at low prices for prompt sale.

H'IDSON USHER, Queenston, Ont.

GEORGE D. FLETCHER,

Breeder of Scotch Shorthorn Cattle and Yorkshire Pigs.

Our herd of the most noted Scotch families is headed by the \$2,000 Dutch-bred bull, Joy o' Morning (Imp.) = 32070 =, winner of 1st prize at Dominion Exhibition, Toronto. A few very choice young bulls from 4 to 9 months old, also females for sale. In Yorkshires are a choice lot of either sex, 7 months old, from imp. sire and dam. Sows bred to imp. hog if desired.

RINKHAM P. O., ONT. ERIN STATION AND TEL

JOHN LEE & SONS, Highgate, Ont.

SHORTHORNS & LINCOLNS

The champion herd of Elgin Kent and Essex counties. For Sale: 6 choice young bulls 3 reds and 3 roans, of grand type and quality; also good selection of young cows and heifers. Visitors welcome.

STRUAN SHORTHORNS

For sale: Choice young bulls from four to ten months old, sired by Scottish Beau (imp.) (36039); also cows and heifers of different ages. Write for prices, or come and see my herd.

N. S. ROBERTSON, Ontario Arnprior.

BONNIE BURN SHORTHORNS

For immediate sale: Two 2-year-old heifers, safe in calf; four bulls, two of them out of imp. dam All by imp. sire. Shropshires, both sexes—lamb and shearlings. Berkshires, both sexes, by imp sire and dam. D. H. Russell Stouffville P.O. & Sta

For Sale—The stock bull, Queenston Archer = 48896 =, by Derby (Imp. dam Veronica (Imp.) by Brave Archer (Imp.) also a number of choice Shropshire ram lamb at reasonable prices. BELL BROS., Bradford, Ont

GOSSIP.

Mr. Wm. Smith, Columbus, Ont., writes: "Kindly stop my advertisement about exchanging the bull, Ben Lomond, for an imported bull, as Mr. Amos, of Mofat, and I have exchanged for his purchase at Mr. Ed. Robinson's sale, at Markham, last week, Royal Champion. I have recently sold a couple of young Wedding Gift bulls: One to Wilson Nesbit, of Blackstock, and the other to Prince Albert Syndicate, also a very fine young Wedding Gift cow and her calf, by Royal Archer, to Fred Richardson, Columbus, Ont."

MR. MCGILLICUDDY'S SALE.

The auction sale of Shorthorn cattle, carriage horses and brood sows, advertised by Mr. M. J. McGillicuddy, of Kenilworth, to take place on Thursday, January 31st, at his farm, seven miles from Arthur and eight from Mount Forest, C. P. R., where teams will meet trains morning of sale, will afford an opportunity of securing a good class of dual-purpose cattle, the herd being founded on good-milking strains, most of the twelve young cows showing good-milking capacity, as well as being rapid feeders when dry. These are in calf or have calves at foot by the present stock bull, a son of the imported Marr-bred bull, Prime Favorite, winner of second prize in the strong competition at the Toronto Exhibition last fall, one of the very best bulls in Canada. The heifers and the half-dozen young bulls in the sale are a thrifty, good-feeding, mossy-coated lot, which should find ready buyers at fair prices, as no fancy figures are expected. A few matched pairs of road and carriage horses, and a few pure-bred Yorkshire and Berkshire sows, are also included in the sale.

Mr. Robert McEwen, Byron, Ont., near London, writes: "My advertisement with you is bringing me many enquiries for Scotch collies, and I find farmers do not hesitate as they once did to pay a fair price for a good dog. Shipment have been made to California, British Columbia and Nova Scotia, and intervening places. I wish to announce that I have reluctantly concluded to confine my collie-breeding to one or, at most, two bitches, and, therefore, offer for sale practically the whole of my kennel, which has been before the public continuously for the past thirty years, competing at the largest shows in Canada and the United States. This is an opportunity not often afforded of obtaining working, breeding and show individuals of the highest merit and most approved breeding. Included in the sale list is Holyrood Idyll, the dam of H. Mouty, winner, at Chicago, of two firsts and three specials, one of which was the \$300 American Collie Club trophy; H. Conqueror and H. Conquest, winners at New York of first and second, sweepstakes and special for the best brace bred in America. Other brood bitches are: H. Maid, H. Pretty One, H. Princess, H. Polly, and H. Elsie, winners at Toronto, Buffalo and Detroit Shows. All of these must be sold, as well as puppies now on hand, and I shall be glad to hear from anyone in need of a dog. Any buyer not satisfied with his purchase can have his money refunded, provided he re-ships immediately after inspection and prepays return charges. The offerings are all of my own breeding, and I will guarantee all descriptions and pedigrees."

Lump Jaw advertisement with image of a dog's head and text: '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. Knows 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 Vets. Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy. FLEMING BROS., Chemists, 45 Church Street, Toronto, Ontario.'

HOLLYMOUNT SHORTHORNS

Pure Scotch, imported, and the get of imp. stock. 25 HEAD. Anything for sale. 5 young bulls. Breeding gilt-edged and unsurpassed. A few heifers. Prices right.

W. J. Thompson, Mitchell P. O. & Sta.

MAPLE GROVE SHORTHORNS

My present offering: Several imp. cows with calves at foot; also 4 young bulls. Heifers 6 months to 2 years old. Prices and terms reasonable.

C. D. WAGER, Enterprise Stn. & P.O., Addington Co.

Maple Lodge Stock Farm. 1884-1906.

SHORTHORN BULLS—good ones. Several from heavy-milking cows. Choice heifers also. LEICESTER EWES, and a lot of extra good rams.

A. W. SMITH, MAPLE LODGE, ONT.

SELMAR PARK 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, Manager. PETER WHITE, JR., Pembroke, Ont.

Six Red Shorthorn Bulls

12 to 15 months old, got by Proud Gift = 50077 = (imp.); also cows and heifers, imported and home-bred. Inspection solicited. We think we have as good Shorthorn cattle as we have Lincoln sheep 14 firsts out of a possible 19, our record at Chicago, 1906.

J. T. GIBSON, Denfield, Ont.

Shorthorns and Clydesdales

I am now offering 6 young bulls from 8 to 20 months old, all Scotch bred, two of them from extra good milking families, and a few registered fillies of good quality.

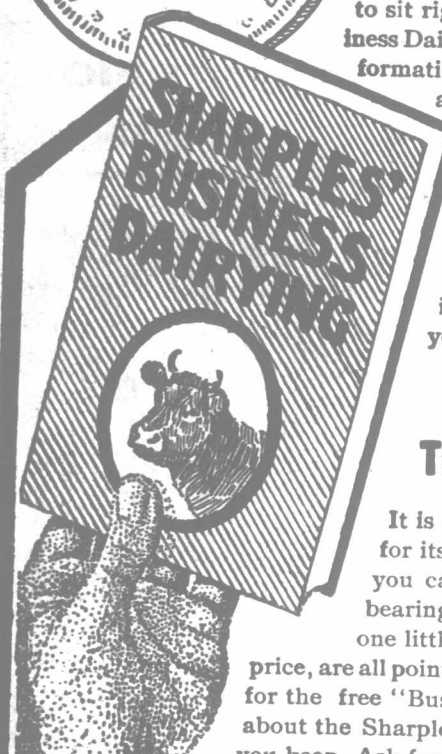
JOHN MILLER, Brougham, Ont., Claremont Sta., C.P.R.; Pickering, G.T.R.

Private Sale of SHORT-horn cattle at SHORT-cut prices for a SHORT time. Choice strains. Write A. M. SHAVER, Ancaster, Ont.



TO FARMERS AND DAIRYMEN

It will pay every farmer or every farmer's wife to sit right down and write for Sharples "Business Dairying." This valuable book contains information that can be found in no other book, and will help any dairyman to make his business more profitable. It tells How to Feed, What to Feed, How to Care for Feed, What Foods Produce Greatest Amount of Milk, How to Care for the Dairy Cow in the way to get best results, and the whole book is practical. To get all the good out of your milk you should of course use



THE SHARPLES TUBULAR CREAM SEPARATOR

It is not only guaranteed to more than pay for itself annually, but the ease with which you can skim, the low can, the self-oiling bearings, the simple Tubular bowl with only one little part inside to wash, the moderate price, are all points you should know about. Send today for the free "Business Dairying" and full information about the Sharples Tubular, giving number of cows you keep. Ask for booklet G. 193

Mrs. J. Renken, Trenton, Ia., says "We cleared \$100.00 in six months off seven cows."

THE SHARPLES SEPARATOR CO.,
Toronto, Can. WEST CHESTER, PA. Chicago, Ill.

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.

SCOTCH Shorthorns

FOR SALE

Two imported yearling bulls. Two imported bull calves. One home-bred yearling bull. All good individuals, rightly bred. Also imported cows with calves at foot and heifers, different ages, of good quality. Write or call on

H. J. Davis,
WOODSTOCK, ONT.
Importer and Breeder of Shorthorns and Yorkshires.

Wm. Grainger & Son

Hawthorn herd of deep-milking Shorthorns. Aberdeen Hero (imp.) at head of herd. Eight grand young bulls, also females, all ages. Prices reasonable.

Londesboro Station and P. O.

T. DOUGLAS & SONS
STRATHROY, ONT.

Breeders of Short horns and Clydesdales. 15 bulls, 60 cows and heifers, 1 imp. stallion, imp. and home-bred fillies. Write us what you want or come and see our stock. Farm 1 miles north of town.

Third Annual Sale of past season's crop of **SHORTHORN BULLS and HEIFERS** of exceptional quality and breeding at **Pine Grove Farm, Rookland, Ont.**
WEDNESDAY, JANUARY, 9th, 1907.
Catalogues on application.
W. G. EDWARDS & CO., Ltd., Props.
JAMES SMITH, Superintendent.

SHORTHORNS & OXFORD DOWNS

Herds headed by Protector, Imp., Vol. 52 E For sale: Bulls from six to twenty months—three from imported dams and imported sires Also females in calf. Also eleven registered Oxford Down ewe lambs. All at reasonable prices. John McFarlane & W. H. Ford, Dutton, Ont., Elgin Co. M. C. R. and P. M. Railways. Long-distance phone.

High-class Shorthorns

We are now offering 5 young bulls and 3 heifers, two, three and four years of age. Marigold, 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.

Scotch-bred Shorthorns

Seven bulls from 10 to 18 months old, also cows and heifers in calf to Good Morning, imp., at let-live prices.

L. K. WEBER, Hawkesville, Ont.

Porter's Golden Fawn St. Lambert and Golden Lad JERSEY HERD.

I AM now breeding the two most popular and productive families of the Jersey breed known—the St. Lambert and Golden Lad. And what is more, my foundation stock of both families was purchased from the two most noted and best breeders of Jerseys on the continent: The St. L. from the late Wm. Rolph, of "Glen Rouge"; and the Golden Lad from T. S. Cooper, Linden Grove, U.S.A. My St. L's are headed by the prizewinner, Porter's Pedro Pogis; and my Golden Lads by Blue Bell's Fox of Linden Grove—a grandson of Mr. T. S. Cooper's high-priced cow, Blue Bell, which was sold at his 1903 sale for \$3,600. I have a few animals of both sexes for sale.

THOMPSON PORTER, Carleton West.

HIGH GROVE JERSEYS AND YORKSHIRES.

For sale cheap, several choice young bulls and a few heifers, some of them prizewinners at Toronto this fall; bred from the best. Twenty young cows just ready to breed. Prices, extended pedigrees, and all information for the asking. **ROBT. TUFTS & SON, Tweed P.O. and Sta.**

Brampton Jersey Herd

For sale: 10 bulls from 6 to 18 mths old, descended from St. Lambert or imported stock; also females of all ages. For full particulars address: **B. H. BULL & SON, Brampton, Ont.** Phone 68.

Pine Ridge Jerseys

For sale very cheap some choice young bulls, bred in the purple, of ideal type; also a few heifers and heifer calves, and some Cotswold shearing rams and ram lambs. **Wm. Willis & Son, Newmarket P. O. & Sta.**

GOSSIP.

Mr. Arthur Johnston, of Greenwood, Ont., who, we understand, contemplates retiring from active business life, requests us to announce that some time in March, next, he will hold a dispersion sale of his noted herd of Shorthorns, the exact date for which will be given in these columns in due time.

When I bought my farm I did not know what a bargain I had in the bluebirds, bobolinks and thrushes, which are not charged in the bill. As little did I guess what sublime mornings and sunsets I was buying, what reaches of landscape, and what fields and lanes for a tramp.—Emerson.

Messrs. Lloyd-Jones Bros., Burford, Ont., write: "At the International, at Chicago, our flock of Shropshires won over all Canadian flocks in the open class, and was only beat by one American flock, a record in such strong competition. Our last importation is all sold that we can spare, and could have sold many more. We sold, before the International, all the imported rams we could part with. At Toronto, we sold more imported rams than any other importer. We also imported the Welsh pony that won at Toronto. We have sold 100 ram lambs to go to Nebraska, also some sheep to Chandler Bros., of Iowa."

Mr. W. M. Smith, of Scotland, Ont., writes: "The small advertisement I had in 'The Farmer's Advocate' brought me a number of buyers of Ayrshires at my sale, on January 1st, that I am sure I should not have had if I had not advertised in your paper." The prices realized at the sale were satisfactory, the highest being \$130 for the three-year-old cow, Jean, purchased by B. C. Johnson, Hespeler. Several others brought from \$86 to \$110 each, the average for all one year old and over being \$78. The stock bull sold for \$82 to Robert Brown, Harley, Ont.

Mr. Edmund Beck, of Peterboro, Eng., has arrived home with three of the Shire mares he brought to Canada from the stock farms of His Majesty the King and Lord Rothschild. The two stallions, Girton Charmer and Premvicor, it will be remembered, were sold to Burgess & Son, of Wenona, Ill., and the two geldings to the Union Stock-yard and Transit Co., of Chicago. The champion mare, Blythwood Guelder Rose, died at the Canadian National Exhibition, Toronto, having broken out of her stall and gorged herself on green stuff. A. G. Soderburg, of Chicago, bought her foal. After leaving Canada and at Kansas City, the whole lot suffered more or less from sickness. In fact, the United States proved a most inhospitable country, entirely ruining the object of the trip, which primarily was to popularize the type in Canada. The mares that have returned to England are Tacsonia, Perseverance and Buscot Vain Maid. The first two named lost their foals at Kansas City, having been served by Ravenspur.

Mr. Harry K. Fairbairn, Thesford, Ont., reports the following recent sales of Shorthorns from his herd: "To J. A. Lattimer, Woodstock, the roan bull calf, Village Prince, by Royal Prince, the sire of the champion sisters, Fair Queen and Queen Ideal. His grandam was the imported Cruickshank cow, Village Blossom, dam of the Chicago World's Fair champion, Young Abbotshurn. Also to the same buyer, the three-year-old cow, Matchless 34th, by Royal Wonder; to R. Boyle, Woodstock, the twenty-month-old heifer, Matchless 35th; to Douglas Thompson, the heifer, Rose Matchless; to A. D. Schmidt, the good breeding cow, Myrtle, all of which were bred on the farm, except the three-year-old cow first mentioned. To Jas. Walden, Jericho, Ont., the excellent bull calf, by Royal Prince, and out of Juliet, who tested 4 per cent. butter-fat at the late dairy show at Guelph. To Hugh Thompson, St. Mary's, the red bull, Nonpareil Kuroki, by Spicy Count (imp.), and the roan heifer, Village Maid 2nd, by Royal Prince. We have just added to the herd two Golden Drop females, a red cow, sired by the O. A. C. bull, Scotsman (imp.), and the calf, Golden Flow, by Scottish Hero (imp.). We have now 28 in the herd, all in fine condition and doing well."

DISEASE MADE BONES SNAP LIKE GLASS.

Frank L. Wellington has died at his home in Trinity Avenue, New York, the victim of a disease which caused his bones to snap like glass. One day while holding a strap in a street car, his arm snapped off. A short time later a leg bone snapped. According to his physician this terrible condition was brought about by taking medicine which contained a certain mineral poison.

Again and again has it been demonstrated that mineral medicines are harmful. Bileans differ from pretty nearly every other liver medicine in containing no mercury, and from pretty nearly every other stomach medicine in being free from bismuth. They are also free from alcohol. They are compounded from the finest known medicinal herbs and roots, and are thus the best family medicine that can be obtained. They operate gently on the bowels, curing constipation and piles. They correct acidity of the stomach, stimulate the digestion, tone up the liver, and correct the secretion of bile. Their general action is at the same time corrective and tonic—correcting faulty secretion, toning up weak and debilitated organs. They thus cure anemia, green sickness, female ailments and irregularities, blood impurities, rheumatism, etc. For nausea, headache, gas, pain in the chest and between the shoulders they are also very effective. Their operation is mild, yet effective. In curing constipation they do not cause after-constipation, nor do they ever cause griping. Mothers will find them beneficial in the many little ailments to which children are subject. All stores and druggists sell Bileans at fifty cents a box, or they may be obtained post free from the Bilean Co., Toronto, on receipt of price. For \$2.50, a parcel of six boxes will be mailed. This is the most economical form for family use.

DEHORNING STOPS LOSS.

Cattle with horns are dangerous and a constant menace to persons and other cattle. Dehorn them quickly and without pain with a **KEYSTONE DEHORNER**. All over in 2 minutes. Not a harsh method. Leaves a clear, clean cut. Cows give more milk; steers make better beef. Send for free booklet. **R. H. McKeena, Fictus, Ontario, Can.**

AYRSHIRES

Choice stock of either sex, different ages, for sale. Prices reasonable. For particulars apply to **M. D'YMENT, Hickory Hill Stock Farm, Dundas Stn. & Tel. Clappison, Ont.**

Ingleside Ayrshires

won more prizes in 1906 than all other competitors combined. Young stock of either sex for sale. **H. C. HAMILL, Fenelon Falls, Ont.** Islay P. O. or Lorneville Stn.

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," Williamstown, Ont.**

SPRINGBURN STOCK FARM, North Williamsburg, Ont.

H. J. Whitteker & Sons, Props., breeders of pure-bred Ayrshire cattle, Oxford Down sheep, Berkshire pigs, and Buff Orpington fowls. Young stock for sale. Visitors welcome.

Ayrshire Bulls

A select pair (13 months old) by a son of the champions Douglasdale (imp.) and Minnie of Lessnessock (imp.), and out of daughters of imp. cows; also two March calves and one May (all select). **W. W. BALLANTYNE, Stratford Ont.** Long-distance phone.

Wardend Ayrshires

We are offering young bulls from 1 to 3 years old; also a choice lot of spring calves from deep-milking dams. Sired by White Prince of Menie No 1825; bred by A. Hume, Menie, F. W. TAYLOR, Wellman's Corners, Hoard's Stn., G. T. R.

ANNANDALE HOLSTEIN HERD

Prince Posch Calamity heads the herd. His dam (Calamity Jane) and sire's dam (Alta Posch) in official test, averaged 86 lbs. milk a day, and over 26 lbs. butter a week, one of the greatest sires living. No stock for sale now. 35 head (20 A.R. cows) will be sold at auction at my annual public sale, last of February. None for sale after that event, except bull calves not catalogued nor born yet. For particulars see stock notes, in Jan. 17th issue.

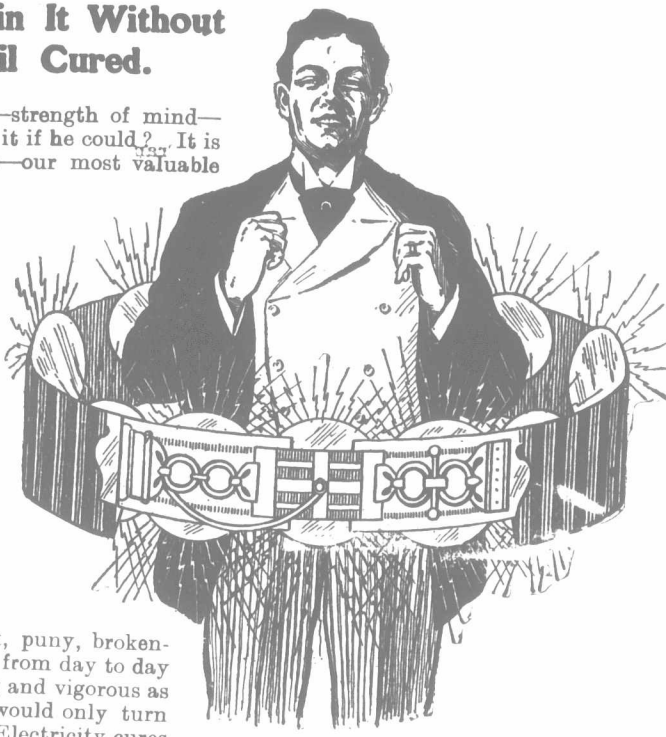
GEO. RICE, Tillsonburg, Ont.

STRENGTH—Free to Men!

How to Regain It Without Cost Until Cured.

Strength of body—strength of mind—who would not possess it if he could? It is Nature's greatest gift—our most valuable possession.

Without this strength life is a failure, with it everything is possible. Almost every man was made strong, but few have been taught how to preserve this strength. Many, through ignorance, have wasted it recklessly or used it up excessively, leaving the body exhausted, the nerves shaky, the eyes dull, and the mind slow to act. There are thousands of these weak, puny, broken-down men dragging on from day to day who might be as strong and vigorous as ever they were if they would only turn to the right source. Electricity cures these weaknesses. It gives your back the very element you have lost. It puts new life into the veins and renews the vigor of youth. For forty years I have been curing men, and so certain am I now of what my method will do that I will give to any man who needs it my world-famed DR. SANDEN ELECTRIC BELT AND SUSPENSORY FREE UNTIL CURED. You pay nothing down, you deposit nothing, you risk nothing; but upon request I will furnish you with the Belt to use, and if it cures you pay me regular catalogue price—in many cases not over \$5.00. If you are not cured or satisfied in 60 days, return the Belt to me, and that ends it. For cash I give full wholesale discount.



As I am the originator of this method of treatment and have made it a great success, there are many imitations of my belt; but my great knowledge, based on 40 years' experience, is mine alone. My valuable advice is given free with my Belt.

This offer is made especially to men who lack strength and vitality and the vim and push of former years, who have drains, losses, varicocele, etc., but I also give my Belt on the same terms to sufferers from Rheumatism, Lamé Back, Sciatica, Kidney, Liver and Stomach Troubles.

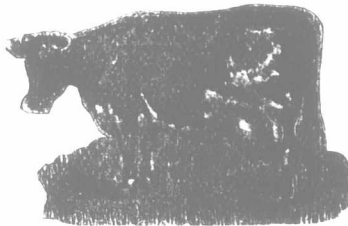
Call or write for a Belt to-day; or, if you want to look into the matter further, I have two of the best books ever written on Electricity and its medical uses, which I send free, sealed, by mail.

DR. B. W. SANDEN,

140 Yonge Street, Toronto, Ont.

Office Hours: 9 to 6; Saturdays until 9 p. m.

HOLSTEINS FOR SALE, A FEW HOLSTEIN BULLS



Four imported and one home-bred bulls from 8 to 18 months old; also our entire crop of springbull calves from weeb old up.

H. E. GEORGE, Crampton, Ont.

MAPLE PARK HOLSTEINS
Home of the great De Kol Pietertje and Posch families. Schuiling Sir Posch, son of Annie Schuiling, testing over 4% butter-fat officially and grandson of Altje Posch, stock bull.

S. MACKLIN, PROP., STREETSVILLE.

Imperial Holsteins—An Advanced Registry herd for sale. One year-old bull, a Toronto champion, four bulls from 4 to 8 months of age. A. R. on both sides. Imp. in dam from the U. S.

W. H. SIMMONS, New Durham P. O. & Sta.

MAPLE GROVE HOLSTEIN HERD
Is made up of Record of Merit cows and heifers with large records and headed by Lord Wayne Mechtildie Calamity. Young bulls fit for service at reasonable prices. Walburn Rivers, Folsen's, Ont.

Evergreen Farm Holsteins is headed by Prince Pauline DeKol, which we are offering for sale; sire of 10 daughters in Record of Merit; also a choice lot of young bulls fit for service, from Record of Merit cows with large records.

F. C. PETTIT & SON, Burgessville Ont.

Glenwood Stock Farm—Holsteins and Yorkshires.
Holsteins all sold out. Have a few young York shire sows, about 2 months old, for sale cheap True to type and first-class. Bred from imported stock. THOS. B. CARLAW & SON, Warkworth P. O. Campbellford Bn.

Advertise in the Advocate

fit for service, for sale at reasonable prices. Choice females, all ages. If you are willing to pay good prices for good stuff, write me.

G. W. OLEMONS, St. George, Ont.
CENTRE AND HILLYVIEW HOLSTEINS
Bulls 1 year and under for sale, from great-testing dams and sires, all in A. R. O. Records. Our prizes in milk test in America's A. R. O. Records is, 1st prize in 30-day; 5th in 7-day; 5th in 7-day, over 8 months milking.

P. D. EDE, Oxford Centre P. O.
Woodstock, C.P.R. or 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 22 lbs. 11 oss each.

BROWN BROS., LYN, ONT.

"GLENARCHY" HOLSTEINS
43 head of big, deep-flanked, heavy-producing Holsteins, many of them milking from 50 to 60 lbs. a day on grass. Young stock of both sexes for sale. A straight, smooth lot.

G. MACINTYRE, Renfrew P. O. and Sta.

Greenwood Holsteins and Yorkshires
For sale: A few richly-bred bulls from one to eighteen months old. Also a few choice females of all ages. Yorkshires of either sex.

D. JONES, JR., Caledonia P. O. and Sta.

HILTON STOCK FARM—Holsteins, Cotswolds and Tamworths—Present offering: Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig. **R. O. MORROW & SON, Hilton P. O. Brighton Tel. and Sta.**

Grove Hill Holsteins Herd consists of fifty-four head, containing blood of De Kol, Pietertje Korndyke, Keyes, Inka, and other families of good testing qualities. Young stock of both sexes for sale at present in limited quantities. Write for prices.

F. R. MALLORY, Frankford P. O. and Sta.
Trenton station, G. T. R.

GOSSIP.

Live-stock ear labels, with name and number, for cattle, sheep and hogs, are advertised by F. G. James, of Bowmanville. These labels are an essential requirement, especially where pure-bred recorded stock is kept. See the advertisement, which speaks for itself.

Shetland ponies have been enquired for in these columns by several parties lately. In this issue Messrs. P. McCullough & Son, Markdale, Ont., advertise ponies for sale, and state that at the Toronto Exhibition, 1906, they showed eight ponies, and won eight prizes, three of which were firsts, four seconds, and one third, a pretty good record. They also provide accommodation for mares sent from a distance to be bred to their imported stallion. Write them for particulars, mentioning "The Farmer's Advocate."

The summaries of the butchers' opinions of the carcasses of cattle and sheep purchased by them at the late Smithfield Club Show show that a large number of the reports are very favorable. The percentages of carcass to live weight are more noticeable as generally satisfactory than for a few exceptionally high returns, the figures having frequently been exceeded in individual cases. The highest percentage was 71.19 for Sir John Swinburne's cross-bred steer, followed by 69.11 for Mr. E. T. Learner's Shorthorn steer. The King's champion Shorthorn steer, which was described by the butcher as "one of the finest beasts he ever cut," had the very good percentage of 68.32.

Messrs. H. Cargill & Son, Cargill, Ont., have made a change in their advertisement of Shorthorns in this issue and write: "While sending this change of advertisement, we rise to remark that we mean just what we say, and that the bulls offered are the best lot we have ever had to offer. They combine all the essentials which go to make up good bulls, viz., flesh, quality, conformation, and the very best of Scotch breeding, all being out of imported Scotch cows and sired by gilt-edged imported Scotch bulls, both of which have been specially selected with the idea of producing good ones."

"We shall be pleased to forward catalogue of the herd with a list of the bulls to anyone interested, together with any information desired. While we are making a special offering of the bulls, please do not forget that we are equally well equipped with heifers, from some just past two years old, in calf, down to calves. "We think we can make a visit to our herd interesting to anyone who has a few days to spare, and who may be interested in looking over one of the best herds of pure Scotch Shorthorns in America. "We do business so that when we once land a customer, nine out of ten come back when anything more is required, which means satisfied customers."

WHAT IT COSTS TO RUN AN AUTO-MOBILE.

The prospective automobile purchaser must realize that even though he buys a runabout—the smallest type of motor, carrying the driver and one other passenger—he is not going to be able to keep the car in operation for \$5 or \$10 a month. It has often been said and truly, that it is not the first cost of an automobile that counts so much as the maintenance expense. It may be possible for a man with a small car who motors modestly to get along with an expense of \$26 or \$30 a month if he has good luck and handles his car carefully and considerably, but the average cost of maintenance will be from \$50 to \$300, and even more, a month. Here are some figures from bills I paid while the owner of a car of the runabout type with a single cylinder eight-horsepower engine and convertible body carrying two or four passengers. These are my expenses for seven months, from April to November, when I covered nearly 10,000 miles. My bill for April was \$55.88. My bill in May was \$67.22, and was made up chiefly for mechanics' time in making adjustments, as I was not then familiar enough with the car to do this work myself.—From "The Automobile and the Average Man," by Harry B. Haines, in the American Monthly Review of Reviews for January.

PASTOR AND PEOPLE PRAISE

PSYCHINE

(PRONOUNCED SI-KEEN)

A Marvellous and Triumphant Record of Victory Over Disease.

No medicine has ever effected as large a number of wonderful and almost marvellous cures as Psychine. It has had one continuous record of victories over diseases of the throat, chest, lungs and stomach. Where doctors have pronounced cases incurable from consumption and other wasting diseases Psychine steps in and rescues numberless people even from the very verge of the grave. Coughs, Colds, Catarrh, Bronchitis, Chills, Night Sweats, La Grippe, Pneumonia, and other like troubles, all of which are forerunners of Consumption, yield quickly to the curative powers of Psychine.

Mrs. Campbell, one of the many cured, makes the following statement:

I cannot refrain from telling all who suffer of my remarkable recovery with Psychine. In April, 1902, I caught a heavy cold which settled on my lungs and gradually led to consumption. I could not sleep, was subject to night sweats, my lungs were so diseased, my doctor considered me incurable. Rev. Mr. Mahaffy, Fort Elgin Presbyterian Church, recommended Dr. Slocum's Psychine to me, when I was living in Ontario. After using Psychine for a short time I ate and slept well, the night sweats and cough ceased. Months ago I stopped taking Psychine, as I was perfectly restored to health and to-day I never felt better in my life. Psychine has been a god-sent to me.

Mrs. ANDREW CAMPBELL, Cottonwood, N.W.T.

PSYCHINE never disappoints. PSYCHINE has no substitute. There is no other medicine "Just as good."

At all dealers, 50c. and \$1.00 per bottle. If not write to DR. T. A. SLOCUM, Limited, 179 King St. W., TORONTO

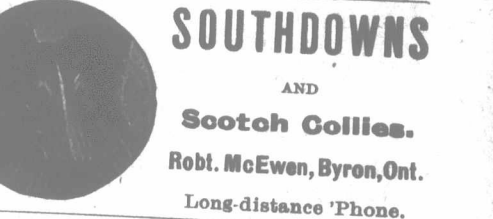
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Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.

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STOP! LOOK!! LISTEN!!!
The Fairview Shropshires have maintained their reputation as winners and producers of winners at both the Chicago International and Guelph Winter Fair. Won at the International: 3 championships, 19 firsts, 1 second, 10 thirds, and 9 fourths—totaling \$397. Won at Guelph: 1 championship, 11 firsts, 12 seconds, 9 thirds, and 1 fourth—equal to \$301. Won 1st, 2nd and 3rd twice in very keen competition. At Chicago, Wisconsin Agricultural College's weathers—our strongest opponents—were all sired by rams sold from Fairview. Wishing you all a joyous festive season, I remain, yours cordially,
John Campbell, Woodville, Ont.

WE are offering SHROPSHIRE EWES, bred to Prolific, imp., at \$15.00. Ram and ewe lambs, \$10.00 to \$12.00. Six-weeks YORKSHIRES, \$7.00 each. Peking ducks and Barred Rock cockerels. **W. R. BOWMAN, Mt. Forest P. O. Co. Gray, Ont.**

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Woodstock Herd of Large English Berkshires

I have for sale pigs of all ages, both sexes, from prizewinning stock. Sires in use: Imp. British Duke, assisted by Woodstock Laddie, son of Polgate Doctor. Come and see or write for prices. My herd was in the front rank of prizewinners at the leading exhibitions this fall.

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BERKSHIRES

50 IMPORTED AND CANADIAN - BRED 50
Motto: "Goods as Represented."
Mail orders receive careful attention.
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Rosebank Berkshires. - Present offering:

Sows ready to breed. Choice young stock ready to wean, sired by Maple Lodge Doctor and Sallie's Sambo (imp.), a Toronto winner.
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HILLCREST BERKSHIRES

Stand unrivalled for individual merit in the herd. Our business for 1906 surpasses former years. The enquiry for choice things increases from year to year. Some choice sows for sale due to farrow in the spring. Also a few boars on hand. Vine Sta. G.T.R. near Barrie. John Lahmer Vine P.O.

My Shropshires Won the Flock Prize at Toronto.

And I have imported and home-bred RAMS and EWES

for sale that are of the same stamp. All kinds of good

COTSWOLDS and SHORTHORNS

as well. Prices always reasonable.

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Ship Your HIDES SHEEPSKINS FURS To

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We are offering for sale 100 strong, vigorous good-quality ram lambs, a number from best imported sires. We also have for sale 50 yearling and two-shear ewes, and a number of ewe lambs. Telegraph Guelph.

HENRY ARKELL & SON, ARKELL, ONT. Guelph, G. T. R. ARKELL, C. P. R.

Canadian Agents for the Original McDougall's Sheep Dip & Cattle Dressing Imported direct. Price: Imperial pints, 25c. Imperial half gallon, \$1.25; Imperial gallon, \$2.50. Sold by druggists, or charges prepaid on one gallon tins. THE WORTHINGTON DRUG CO., Toronto, Ontario.

Chester and Cattle Labels. You will need them soon. See about them now. Write to-day for circular and sample. F. G. JAMES, Bowmanville, Ont.

CHESTER WHITE HOGS

The largest herd of bacon-type Chester White hogs in Canada. Strictly high-class, have won highest awards. Young stock of both sexes always on hand. Satisfaction guaranteed.

ROBERT CLARKE, 41 Cooper Street, Ottawa, Ont.

Maplehurst Herd of Tamworth Swine, Bronze Turkeys, Toulouse Geese, Pekin Ducks, S.-C. W. Leghorns.

For sale: A large herd of Tamworths, of excellent breeding and ideal bacon type. This herd won sweepstakes at Toronto and London, 1905-6. Among our winnings at World's Fair, St. Louis, 1904, both premier championships, sweepstakes aged and junior herd, and two grand championships. Inspection and correspondence solicited. For further particulars apply to

D. DOUGLAS & SONS, Mitchell, Ont.

NEWCASTLE HERD OF TAMWORTHS and Shorthorns. - We have for immediate sale several choice boars ready for service, and sows bred and ready to breed together with a lot of beautiful pigs from two to four months old. Also a few choice heifers in calf to Donald of Hillhurst No. 44690, and a few nice bull calves and heifer calves. All correspondence answered promptly. Daily mail at on door, and prices right. Colwill Bros., Newcastle Ont.

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 1848. Won sweepstakes and silver medal at Toronto, 1901-2-3. Also a few bulls. Bertram Hoskin, The Gully, Ont.

LARGE ENGLISH YORKSHIRES

We have a limited number of choice young pigs for sale, bred from our choicest sows, and got by the imported boars, Dalmeny Joe 13577 and Broomhouse Bean 14514. Pigs from the latter won all the first prizes at the Ottawa Fair Stock Show last March for the best dressed carcasses and sweepstakes over all breeds or grades. We guarantee satisfaction in all our orders. Joseph Featherston & Son, Streetsville, Ont.

Cherry Lane Berkshires

Are strictly high-class Toronto winners. Of all ages. Young stock of both sexes for sale. Pairs supplied notakin

Sam Dolson, Alcoa P. O., Norval Stn. COUNTY PEEL.

Cedar Lodge Yorkshires

100 head brood sows (imp.) and the product of imp. stock, weighing from 500 to 900 lbs. each. Stock hogs by imp. sires and dams, very large and full of quality. Young stock of both sexes constantly on hand for sale. Pairs not akin. Satisfaction guaranteed.

P. O. COLLINS, Bowesville P.O., Ont. Manotick Sta., C.P.R.

MAPLE LEAF BERKSHIRES!

High-class Berkshires of show-ring quality, bred from imp. stock, for sale. 2 7-months boars by imp. Polgate Doctor; 2 sows by same sire, bred: 10 sows, 3 1/2 months old, by King of the Castle, and young boars. Joshua Lawrence, Oxford Centre P. O. Woodstock Station

Willowdale Berkshires

Young boars and sows 3 and 6 months of age out of imp. sows, and sired by Imp. Polgate Doctor, Royal Master piece, a son of the \$2,500 boar, Masterpiece, and some of them imp. in dam. Satisfaction guaranteed.

J. J. WILSON, Milton P.O. and Sta.

Maple Grove Yorkshires

are among the leading Canadian herds for size, quality and true-ness to type, and are prizewinners all around. For sale are both sexes. All ages. Bred from imp. and home-bred stock. There are none better.

H. S. McDIARMID, Fingal P. O., Shedden Station Breeder and Importer.

Ohio Improved Chester White

100 Pigs to Offer 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 furnished not akin. Express charges prepaid. Pedigree and safe arrival guaranteed.

H. E. GEORGE, Crampton, Ont.

IMPROVED YORKSHIRES

Choice young stock from imported prizewinning stock for sale.

GEO. M. SMITH, HAYSVILLE, ONT.

Duroc Jerseys - Imported and home-bred sows and boars ready for service. Pigs fit to wean; also Buff Orpingtons and Buff Leghorn cockerels.

MAC. CAMPBELL, Harwich, Ont.

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.

ELMFIELD YORKSHIRE

Have a few young sows from 4 to 7 months, bred and ready to breed; also some young pigs weaned and ready to wean, from imp. dam and sire. G.B. Muma, Arr, Ont.

GOSSIP.

J. M. GARDHOUSE'S SALE.

As announced last week, under cover, at Weston, on Thursday, February 7th, 1907, Mr. J. M. Gardhouse will sell by auction 35 head of Scotch Shorthorn cattle, imported and Canadian-bred, including the stock bull, Imp. Ardlethen Royal, a Princess Royal, by the Broadhooks bull, Baron Beaufort, dam Pauline 2nd, by the Missie bull, My Choice. This is one of the best all-around bulls in Canada; his breeding cannot be improved on, and he is a show bull from the ground up. He is a red three-year-old, thick, even, melow and well-backed. Other bulls to be sold are: Nonpareil Eclipse 55794, a two-year-old, bred by John Miller & Sons, Brugham, sired by Imp. Langford Eclipse, dam Nonpareil Lady 2nd, by King William. This is an extra good bull, fit to head any herd. Missie Lad 65454, by Imp. Albert's Heir, dam Missie of Springfield 2nd, is a yearling Missie, another herd-header. Dunrobin Villager 64847, by Imp. Lucerne, dam Village Queen 5th, is a roan ten-months-old, Village-bred, and a show calf of a high order. Right Ruler 65456, by Imp. Chief Ruler, dam Imp. Aggie Grace, is a seven-months-old calf, the making of a show bull, and a herd-header. Here is an extra choice lot of bulls, every one of them a herd-header and show animal. The females represent such choice strains as the Nonpareil, Missie, Rosebud, Ury, Fairy, Maggie, Undine, Village Girl, Jilt, Miss Ramsden, Verbena and Orange Blossom; the whole making one of the choicest offerings ever sold by auction in Canada. They are all in fine condition. All the cows and heifers old enough are in calf or have calves at foot, and many of them are in calf again. A large number are heifers, from six months to two years of age, and several of them are show animals of a high order. The bulk of them are the get of Chief Ruler (imp.), whose full breeding will be in the catalogue; he is now at the head of Senator Edwards' herd, and is among the best sires ever used in this country. Dalmeny Maggie (imp.) is a Maggie-bred cow, by Wanderer's Heir, a big, thick, smooth cow. Nonpareil 47th, by Royal Ensign, is a two-year-old Nonpareil, an extra good one. Humber Snowdrop is a half-sister to the great bull, the champion of champions, St. Valentine. She has a beautiful roan heifer, by Chief Ruler. Princess Pitivie 2nd (imp.), is an Undine, by Sir Wilfred Laurier; she is a big, thick roan. Miss Howie (imp.), a Miss Ramsden, by Red Prince, has a grand good bull calf at foot, by Chief Ruler. For a full description of the breeding of the herd, send for a catalogue. In young stuff are fourteen heifers from six months to two years of age. Among them is Rosy Jilt 76217, a two-year-old, by Chief Ruler, dam Rothnick Beauty (imp.). Verbena's Princess 76668, by Chief Ruler, dam by Imp. Loyalty, is closely related to St. Valentine, and carries the superior form of that grand strain. A particularly choice heifer is a seven-months-old Orange Blossom, by Chief Ruler, the making of a show animal. The above is only a sample of the rich breeding and individuality of the whole offering, and one visiting the sale will not be disappointed in the class of goods brought out, and there never was a more opportune time to lay in a foundation for a herd or strengthen an existing one than just now, as there is bound to be a rise in the prices of Shorthorns in the near future, and lucky will be the men prepared for it; besides it costs no more to keep a good animal than a poor one, and the price to be got for them is always a paying one. The combination of this sale makes it doubly attractive - cattle, horses and sheep - and all gilt-edged animals. Nearly all the cattle to be sold are eligible for registration in the American Herdbook, a fact that greatly enhances their value. For full particulars regarding terms, etc., look up the advertisement in another column, and arrange to attend the sale. Weston is connected by Toronto Junction with a half-hour street-car service, and has both G. T. R. and C. P. R. connection. The sale will be held at the Eagle House, under cover, so will be held rain or shine. Look up the next issue.



Are a True Heart Tonic,

Nerve Food and Blood Enricher. They build up and renew all the worn out and wasted tissues of the body, and restore perfect health and vigor to the entire system. Nervousness, Sleeplessness, Nervous Prostration, Brain Fag, Lack of Vitality, After Effects of La Grippe, Anemia, Weak and Dizzy Spells, Loss of Memory, Palpitation of the Heart, Loss of Energy, Shortness of Breath, etc., can all be cured by using

Milburn's Heart and Nerve Pills.

Price 50c. a box or 3 for \$1.25. All dealers or THE T. MILBURN CO., LIMITED, Toronto, Ont.

MONKLAND Yorkshires

Imported & Canadian-bred

We keep 35 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.

GLENBURN HERD OF YORKSHIRES

Winner of gold medal three years in succession. Offers for sale: 18 young boars, 4 months old; a large number of sows, same age; also 30 suckling pigs, both sexes. Also a grand good Shorthorn bull (roan), 10 months old.

David Barr, Jr., Box 3, Renfrew, Ont.

Glenhodson Yorkshires.

Sows bred or ready to breed. Young pigs from three to six months old. Pairs not akin. Satisfaction guaranteed.

GLENHODSON COMPANY, Myrtle Station, Ont.

Long-distance phone at farm. Lorne Foster, Herd

Fairview Berkshires

Are second to none. My herd has won high honors wherever shown. Am now offering sows bred and ready to breed, and young ones of both sexes, the get of Masterpiece and Just the Thing. An exceptionally choice lot.

JOHN S. COWAN, Donegal P. O., Milverton Sta.

SUNNYMOUNT BERKSHIRES.

Sunnymount Berkshires are unsurpassed for ideal bacon type and superior breeding. For immediate sale: 8 sows 11 months old, in pig; several sows from 5 to 7 months old; 3 boars 11 months old, and several 5 to 7 months old, and younger ones of both sexes. Imp. sires and dams. JOHN McLEOD, Wilton P. O. and Sta., C. P. R. and G. T. R.

OAKDALE BERKSHIRES.

Of the largest strain, 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, Milliken Stn. and P. O.

Fairview Berkshires

Bred from imported and Canadian-bred sires and dams, and bred on prize-winning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boars.

HENRY MASON, SCARBORO P. O. Street cars pass the door.

Maple Lodge Berkshires - A number of shire sows, bred and ready to breed. Young stock on hand of both sexes. Stock registered and crated f.o.b. Prices reasonable. JOSEPH NAUMAN, Fisherville, Ont. Nelles' Corners Sta., G. T. R.