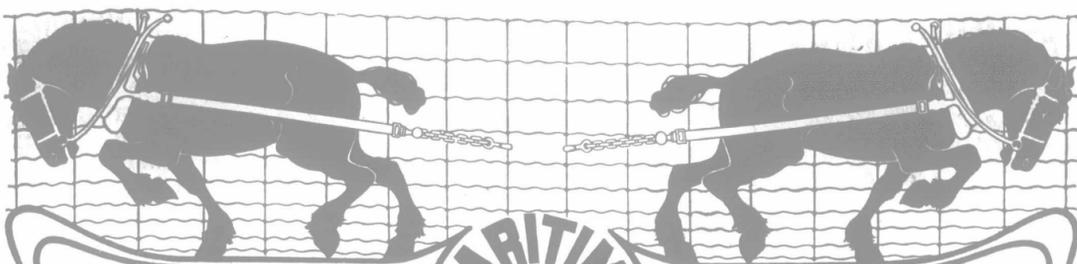


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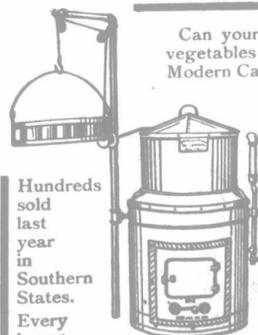
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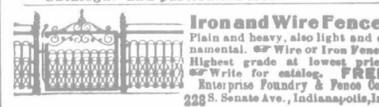
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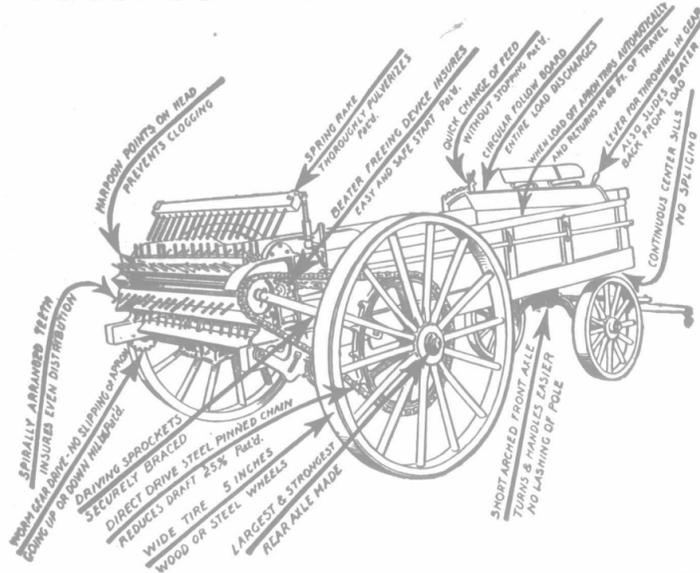
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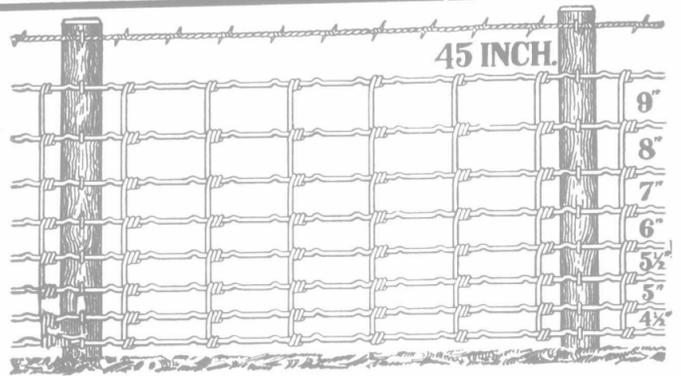
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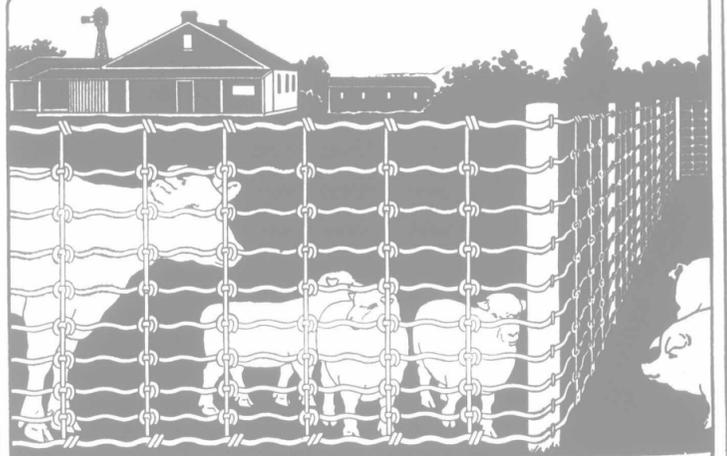
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Vol. XLIII.

LONDON, ONTARIO, MAY 14, 1908.

No. 816.

EDITORIAL.

THE GOVERNMENT AND THE NATIONAL RECORDS.

At the annual meeting of the National Record Board, held last month in Toronto, Dr. J. G. Rutherford, Veterinary Director-General and Live-stock Commissioner, took occasion to correct a popular misapprehension, that the Canadian National Live-stock Records are administered through the Live-stock Branch of the Department of Agriculture. As a matter of fact, the National Records are not under the tutelage of the Department. For patriotic reasons, the Dominion Government endorses, and to a certain extent assists, the National Records, but the desire and intention is that this organization shall, so far as possible, in actuality, as well as in name, stand on its own feet, and that the distinction between it and the Department be clearly and sharply drawn in the public mind.

The scheme of organization is, briefly, this: The several breed societies and associations elect their representatives to the National Record Board. The Record Board elects from among its members a Record Committee, to which is entrusted the general charge of the administration of the National Records office. The head officer of this office is the accountant, and, so far as actual business relations are concerned, the accountant and the live-stock commissioner are, respectively, the only two persons through whom the National Records and the Department of Agriculture have official contact.

A clerk of the Department of Agriculture examines the certificates passed along by the breed registrars, and, when found correct, he places the seal of the Department on each one, which stamps it as recognized and endorsed by the Government; but all business relations are between the accountant and the live-stock commissioner, representing the Minister of Agriculture and the Government generally.

REGULATIONS GOVERNING THE FREE IMPORTATION OF STOCK.

The resolution adopted in Toronto on April 30th by the National Record Board, concerning the conditions of free customs entry of pure-bred stock into the Dominion, relates to one of the most complex and difficult subjects with which an organization of breeders could be called upon to deal. Opinion is unanimous that a change is necessary, but just what form it should take, and how far it should go, has been a problem of much debate; and that conceded, the next question was how to frame the new regulations, so as to harmonize all the diverse interests and adequately cover specific cases with a general regulation.

The present customs regulations on this point were framed at Ottawa in 1887, and are so extremely loose and open as to admit duty-free almost any animal pretending to registration. Under them, many animals, especially horses, have been brought into the country duty-free, ostensibly for the improvement of stock, but really to jew Canadian farmers out of extravagant prices for inferior or worthless animals, often recorded in clap-trap registration books, recognized by no good authority in the country whence they come. Doubtless the public has been gradually educated through its mistakes in buying such stock, but the education has been pretty costly, and now that Canadian breeders, assisted by the Dominion Government, have gone to such pains and expense to consolidate their live-stock pedigree records under the National Records scheme, admittedly the best system of live-stock registra-

tion in any country, the importance of doing everything in our power to purge the country of all spurious or inferior pedigree registration, and insist that all animals in Canada claiming pedigreed breeding shall be recorded in our own books, where we have such, surely requires no demonstration. The existence of two or more recognized records for any particular breed is bound to be confusing and an easy lever for deception and fraud. It is greatly in the interests, not only of Canadian breeders, but of the purchasing public, to have in Canada only one record for each breed, and that record should be the one kept at Ottawa, and every one of its pedigree certificates should bear the imprimatur of the Dominion Government as a guarantee of validity, just as our currency bears the stamp of the mint. Any system of pedigree registration that is worth maintaining at all is worth guarding zealously. Precedent is not lacking. Our Republican neighbors have hedged their pedigreed-stock trade about with all manner of federal and corporate restrictions, some of them essentially protective in principle and effect. We understand that a man importing stock into the United States must make three affidavits, including one that he is an American citizen.

The resolution passed at the meeting of the National Record Board emphasized the advisability of having, as far as possible, all pure-bred animals in Canada registered in the National Records, and recommended that free customs entry should be granted only to animals owned and imported by British subjects, and on production of certificates of registration of such animals in the Canadian National Records, in the case of all breeds for which we have such; otherwise, in books kept by certain specified societies in the country of origin, providing that the pedigree certificates purporting to have been issued by said foreign societies be in all cases approved by the Accountant of the National Records, thereby relieving the customs officers from the responsibility of such a duty.

The above resolution, while not unexceptionable, appears to meet the case moderately well. There are, however, some anomalies. The proposal to admit free of duty animals entered in the French Coach and French Draft books of France, the German Coach and Oldenburg books of Germany, the Suffolk and Cleveland Bay books of Britain, the Polled Durham and National Polled Hereford books of the United States, the Ass Registration Society of France, and the Spanish studbook of jacks and jennets, while excluding short-pedigreed Shorthorns and making no provision of any kind for the free importation of Holstein-Friesian cattle, seems hardly advisable. The principle advanced in the resolution, of seeking to have all pure-bred animals in Canada recorded in the National Records, is a good one, and might be followed out further. It is not necessary to prohibit the importation of animals not recorded in Canadian books, but why not require the payment of duty on all animals belonging to breeds not numerous or important enough to have Canadian registers? The payment of duty on a few foundation-stock animals would not debar the introduction of any worthy breed, but it would stimulate prompt effort to have a Canadian record established, and would tend to discourage the importation of animals of various miscellaneous breeds which favor a country most by staying out of it.

The principal real objection to the more sweeping proposal is that it would almost necessitate the establishment of a Canadian record for Standard-bred horses, which, in some well-informed quarters, is considered inexpedient at present. But as this is the only breed of any consequence

to us that would be affected, it would seem that some way should be found to admit animals of this breed without throwing down the bars to twenty-five or thirty foreign studbooks, herdbooks and flockbooks, as the resolution of the Record Board proposes.

It has been given to understand that the Dominion Minister of Agriculture, Hon. Sydney Fisher, is favorable to the recommendation of the Record Board, and prepared to recommend it to the Department of Customs, so that an early change will be looked for. While it will be very acceptable to stockmen, we take the liberty of suggesting that no impropriety, but much advantage, would result from going a step further and requiring that no animal be admitted into Canada duty-free unless owned and imported by a British subject, and recorded in a Canadian book of record, incorporated under a Dominion charter.

HOW MILKING QUALITY WAS DEVELOPED.

Apropos of the dual-purpose cow discussion running through these columns, let us draw attention to a couple of extracts, taken, respectively, from our Irish and Scottish letters. Writing of Herefords at the Dublin Spring Show, "Emerald Isle" says: "While Shorthorns are pushing ahead, these great Whiteface beef-producers are only marking time in Ireland. They admirably suit the rich grazing lands of the center of our island, but their deficiency as dairy cattle tells against their general advance."

The very day these words were penned, "Scotland Yet," across the Channel, was writing about Mr. John Evens, of Lincolnshire, Eng., who had been awarded first place among the Lincolnshire-prize farmers in 1907. Mr. Evens farms 930 acres, and keeps a large stock, including a herd of Lincoln Red cattle: "The notable thing about the herd is that, beginning to keep milk records in 1885, he has, through the information gained from them morning and evening during these twenty-three years, transformed a beef-producing herd into one of the best herds of dairy cattle in England." It is true we are not told just how Mr. Evens has succeeded in retaining beef type along with the development of milking quality, but it is probable he has attained a very fair measure of success in securing the combination or dual-purpose cow. If he has not, it will be because, in the zeal for dairy production, adequate stress was not laid on beef type. At any rate, the case is of value as signifying what can be done by systematic breeding, selection and development to bring about a liberal degree of milking tendency in a recognized beef breed. It is this kind of systematic effort that is urgently needed in Shorthorndom to-day, if the breed is to gain ground, or even retain the place it holds.

Ten thousand dollars from the City of Guelph, and twenty thousand from the Ontario Government, should sufficiently increase the facilities of the Provincial Winter Fair to meet all reasonable requirements for quite a few years to come. Plans have been under consideration which will accommodate a greatly enlarged fair, and at the same time provide the local citizens with an admirable market-place.

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THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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JOHN WELD, MANAGER.

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A TWENTIETH-CENTURY WORD BOOK.

Among the books required for reference in every home is a good dictionary. We have long wished to include such a volume in our list of premiums for those who secure for us new subscribers to "The Farmer's Advocate," but have found it difficult to combine comprehensiveness and general merit with a price that would bring it within the attainment of all. Patient inquiry, however, has at last brought to light Chambers' Twentieth Century Dictionary, embracing pronunciation, explanations, etymology, compound phrases, technical terms used in the arts and sciences, abbreviations, forms of address, vocabulary of Scripture names, common Christian names, phrases from Latin, Greek and modern foreign languages, and other information, accompanied by many illustrations that readers generally will appreciate. In fact, it is almost an encyclopedia. Although compact and convenient in form, and well printed, the volume contains over 1,200 pages. The fact that it is issued by the old publishing house of W. & R. Chambers, Limited, London and Edinburgh, and edited by the distinguished scholar, Rev. Thos. Davidson, who previously prepared two other dictionaries that won a high place in the esteem of students, constitutes sufficient assurance of the excellence of the present volume, which is regarded as the best of the three. The Journal of Education pronounces it a miracle of scholarship and cheapness. Dr. Robertson-Nicoll, of the British Weekly, declares it will supersede all other inexpensive dictionaries; and the Musson Book Co., of Toronto, commend it as a most complete and up-to-date book in every respect, unequalled by any other at the price. This splendid volume we are in a position to offer to our readers for obtaining two new yearly subscribers to "The Farmer's Advocate and Home Magazine," and believe that very general advantage will be taken of so favorable an opportunity.

HORSES.

PERCHERON HORSES.

History shows that 75 years ago the Percheron in France was a 'bus horse, weighing from 1,200 to 1,400 pounds, according to the official statement. The increase in size during the past three-quarters of a century to the present scale is traceable, as in all other draft breeds, to the requirements of modern civilization, and the insistent demand for horses nearly up to a ton weight, which is really a greater weight than is necessary for ordinary draft work, and is really attained by comparatively few in any of the draft breeds, except when unduly loaded with fat.

"It is probably beyond question," says the author of "The Horse Book," recently issued, "that French draft horses were imported into Canada about the beginning of the nineteenth century, probably earlier, but the first authentic history we have of an imported horse making a great mark in the stud is of the McNitt horse, or European, landed at Montreal about the year 1816. There is some dispute about the weight of this stallion. He was a gray, and, as he was a fast trotter, and begot Alexander's Norman, which founded an unimportant strain of trotters, it is unlikely that he was at all large. It is history, also, that Alexander's Norman was never intended to be used as a getter of trotters. He was more or less of the draft type, as draft type went in those far-back days, and it cannot be said that his blood has been of material benefit to the trotter as a breed." It is, however, freely admitted, in the history of the American trotting and pacing breeds, that some of the most noted strains of that class of horses owe their origin in no small degree to French-Canadian blood.



A Typical Percheron Stallion.

Percherons were imported into New Jersey in 1839 and later, but it was with the importation in 1851, of the stallion Louis Napoleon, into Ohio, that the importation and breeding of Percheron horses in the United States had its inception as a business. The famous stallion, Louis Napoleon, weighed about 1,600 pounds at his best, and, after his purchase by the Dillons, of Illinois, began the movement which has resulted in thousands of Percherons being imported to that country, many of them of a very superior class, and from the very first the Percheron has been the favorite drafter of the American people. There are probably three times as many Percherons in that country to-day as there are of any other one breed. "The technical charges," says the authority previously quoted, "which have been made against the Percheron are chiefly that his bone is light, his pasterns short, and his rump sloping. The popular verdict is that, whatever the size of his bone or the length or angle of his pasterns, his grades last longer on the streets of the cities than those of any other breed, and the American people have declared in favor of the draft horse which can get up and go; and, gauging the matter by the demands of the market, the Percheron best fills this and all other bills." Another point in their favor is their gray color. While all colors are to be found in the breed, grays were for a half a century or more the most popular. Then came a craze for blacks; but there never was any good reason for this, and there is no sense in the prejudice against gray as a color in horses, as a good horse is never a bad color, and many of the best and most useful, and long-

lived, horses in all classes have been grays. The breed has, however, in the United States, stayed quite largely gray, fortunately, and the gray stallion is now coming back into his own. Dealers in Chicago and elsewhere say they will pay as high, sometimes, as \$20 in the hundred more for gray geldings than for other colors, which supplies a good reason why farmers should strive to breed grays.

The Percherons have never had a fair chance to prove their claim to favor in Canada, the best class of stallions not having been introduced here, unless some of the recent importations may measure up to that standard. But, even with the mediocre sires that have been brought here, many excellent grades, suitable for draft and general purposes, have been raised, and Percheron stallions have nicked especially well with the average light mares of the country, producing an exceptionally useful class of farmers' horses.

HACKNEYS GROWING IN POPULARITY.

The Secretary of the Canadian Hackney Association writes: "I have just been looking through the 1907 Studbook, Vol. XXIV., of the English Hackney Horse Society, and find that, amongst its 2,045 members, are to be found the names of His Majesty the King and other notables, as well as the small tenant-farmer, who raises probably one or two horses of the breed a year, and about 100 lady members, and 519 life-members. That this breed of horses must be very popular all over the world for getting carriage horses, is proven by the number that are exported every year to the United States, Canada, Argentina, Africa, Australia, Belgium, Brazil, Chili, Denmark, France, Germany, Holland, Italy, New Zealand, Portugal, Spain and Switzerland.

"Conditions for entry in this Volume are that stallions foaled after 1880 must have registered sire and registered dam.

"It is very gratifying to know that the Canadian Hackney Society has increased its members this year by nearly 50 per cent., and that many new breeding establishments are starting both in this country and in the United States, and a large number of old stables are adding this breed to their establishments, crossing with the Thoroughbred and Standard-bred of good conformation, thereby getting fast, bold, high-going and good-tempered carriage horses. It is strange that the farmer cannot see the benefit of registering his animals, no matter what breed; but, from the

very much larger number of registrations made this year, it is evident they are gradually becoming more accustomed to taking a little trouble to keep a record of the animal they breed. The secretary will always be pleased to supply entry forms, and give an extended pedigree of any registered animal."

ADVANTAGES OF TWO-HORSE CULTIVATOR.

Editor "The Farmer's Advocate":

"Interested," on page 777, asked for discussion on two-horse corn cultivator. This implement will be found one of the most useful on the farm, not only for corn. It can be used for cultivating potatoes, roots, or any vegetable that is planted in rows; it is also a bean harvester. It is a very useful cultivator for preparing the soil for a grain crop in springtime. The frame is adjustable, and one section can be added, if necessary, to make it wide or narrow, as desired. I have always found one row well done is very much better than two rows half done. The advantage the two-horse cultivator has over the one is that seven acres can be done in one day, as against five acres with the one horse. It also means a man is fit for considerable work after the horses are tired, as against a tired man and horse. The two-horse cultivator can be used in corn until it is four to five feet high; bending the tops of the corn will do no harm.

JOHN FIXTER.

Macdonald College, Ste. Anne de Bellevue, Que.

LIVE STOCK.

OUR SCOTTISH LETTER.

Writing on the 24th of April, one of necessity begins by referring to our unwonted experience of a blizzard at this advanced day of spring. We have often a few snow showers in April, but today and yesterday, all over Great Britain and Ireland, a perfect blizzard of north-east wind and snow has been raging. The results may be disastrous for flockmasters. Low-ground lambing finished some weeks ago, and hill lambing is just beginning. The results among low-ground ewes have been quite satisfactory, and the hope was general that the results among hill ewes would have been equally so. But lambs entering the world in such weather as this stand a poor chance of survival, and those which have already arrived will require careful attention. It is said that no such April blizzard has been known since 1879. That was the worst season for British farmers on record, and we can only hope that our present experiences are not a harbinger of similar experiences in the approaching season. If it should be so, the farmers of this country would have reason, like the Eastern patriarch, to curse their day. As it is, the outlook for flockmasters is not too promising. The slump in wool has come, and skins have fallen to a lower level than they had reached for the past half a dozen years. Mutton is selling well, and sheep would, under normal conditions, have been leaving feeders quite a good return for their outlay. The poor price resulting from the skins throws the balance on the other side, and, even were the weather conditions favorable for lambing, the issue of 1908 for flockmasters would not be too promising.

For two days of this week I was in that distressful country, Ireland. The Spring Show was being held at Ball's Bridge, where there was a fine display of Shorthorn, Aberdeen-Angus, Hereford, Jersey, Kerry and Dexter cattle. Horses, chiefly of the Clydesdale persuasion, were also in evidence, and one or two Hackneys were forward. A notable breeder of Hackneys in Ireland is Lord Ashtown, against whom the fiat of the United Irish League has gone forth. His Lordship was at the show, along with his wife and boys, but was being protected all the time by a detective, whom those in the know had little difficulty in picking out of the crowd, although ordinary on-lookers would never have imagined he was anything but one of themselves. It was a plucky way of enjoying the show, but one would rather not have been in Lord Ashtown's shoes. The show was this year a strictly Irish event. On account of the foot-and-mouth disease in Edinburgh in February, the Irish Department of Agriculture closed all the ports in Ireland against British cattle, and the embargo still remains in force. In the past, Scots and English breeders have carried away the leading honors of the show, but this year the Irishmen had it all to themselves. A Scots-bred bull was, however, champion of the yard. He was bred by Mr. Watson, (Auchronie), Brucelands, Elgin. He is named Scottish Boy, and is owned by Mr. B. Barton, Straffan, who breeds very good Shorthorn cattle. The best of the yearlings were bred and owned by the Earl of Caledon, Co. Tyrone, and were also got by an Auchronie bull named Scottish Captain. Two very fine roan bulls were placed first and second in the class of two-year-olds. They were bred by Mr. Toler Aylward, Shankhill, and were sold by public auction on the second day of the show for 230 gs. apiece to Mr. Dan. MacLennan for exportation to Buenos Ayres. They were exceptionally good specimens for that trade. The auction sales on the second day were a new departure at the Royal Dublin Show, but they are likely to be continued. Trade, although not brisk, was quite steady, and both Shorthorns and Aberdeen-Angus cattle sold for all they were worth. The outstanding fact about Irish cattle is the extraordinary improvement that has marked the past sixteen or twenty years. Previous to that time, the Booth cult was supreme in Shorthorn trade in Ireland. A Cruickshank bull was anathema. Now Scots judges reign, and bulls of Scots breeding are in favor. This week the judges were all Scots but one, and he breeds Scots Shorthorns in England. Two Aberdeenshire breeders also judged the "Blacks," which also showed great improvement. Black bulls are in high favor for crossing purposes in Ireland, where a black calf is just as popular as it is in Scotland. I ought to mention that there has been no outbreak of foot-and-mouth disease in Ireland for twenty-five years. The whole policy of successive Government departments has been to keep disease out of Ireland when it is out. This they can do, seeing that they have control of the ports. The cattle trade is the very life and soul of Irish agriculture. As the country has no manufacturing worth speaking about, and agriculture is its sheet-anchor, it would obviously be madness to risk outbreaks of disease. Should such a thing unhappily take place in Ireland, the results would simply be ruinous to the whole of the country. An Irish politician, be-

cause agriculture is the mainstay of his country, is and must be a protectionist. He dare not take risks in respect of the importation of disease; and, as agriculture is the backbone of industry, what affects it determines the Irish politician's action. He is an out-and-out believer in the old saying, "Keep yer ain fish-guts for your ain sea-maws." Being freely translated, this meaneth, "Man, mind thyself." It is not a half-bad policy. In Great Britain, where other trades and industries have the upper hand, it is not so easy to try the policy. The English wheat-growing farmer is a Protectionist, but the Scots dairy farmer is not. He wants to buy so much more than he can produce that protective tariffs would in no wise benefit him.

Scotland has a big job on hand just now in connection with the regulation of her dairy supply. Legislation is threatened which may considerably handicap the farmer in the production of milk. There are proposals to deal drastically with the cow which is found to have a tuberculous udder. An army of inspectors is to be let loose on the country, with power to inspect byres at any time, and condemn cows right and left should the inspector find anything suspicious about them. Of course, provision is made for payment of compensation, but, as a matter of fact, no amount of compensation can ever make up for the loss of a man's trade. Very drastic powers are conferred with respect to the notification of disease among those employed about dairies. To my mind, this is much more necessary and clamant than the other. Few cases can be cited in which disease is clearly traced to a diseased cow, but the number of cases is legion in which disease can be

or less of a mystery. There are few things about which less is really known in agriculture, and how to prevent its spread is quite beyond the power of existing science.

The Royal Agricultural Society is once more firmly established. It is doing splendid work. In the recent issue of its Journal for 1908 there is a most interesting report by the judges on the Lincolnshire prize farms of 1907. The first prize, of £60, was awarded to Mr. John Evens, Burton, Lincoln, and never was prize more worthily bestowed. Mr. Evens farms 930 acres, of which 620 are arable and 310 are in grass. On this farm is carried a stock of 30 horses, 901 sheep, 192 cattle, and 11 pigs. The main features of the economy of this farm are dairying and sheep-raising. Mr. Evens has a celebrated herd of Lincoln Red cattle. The notable thing about them is that, beginning to keep milk records in 1885, he has, through the information gained from them morning and evening, during these twenty-three years, transformed a beef-producing herd into one of the best herds of dairy cattle in England. How many men can produce such a record from labors so continuously carried on. Mr. Evens is able to produce these milk records, morning and evening, for every day since he commenced taking the record, in 1885. This is the right way to go to work in a matter of the kind. Records based on calculated totals and averages are better than none, but they are not in any real and absolute sense records at all. Mr. Evens feeds liberally. His cake bill for the year amounts to £1,600. By such liberal feeding, he keeps the farm in good heart.

Our show season has opened in earnest. The

Kilmarnock event took place a week ago, and next week we have Ayr, with Glasgow in the following week. The Kilmarnock show was in every way worthy. Clydesdales, Ayrshires and Hackneys were the best features. The Clydesdale champion was a phenomenal yearling colt, bred by Mr. John Cocker, Hill o' Pitty, Fyvie, Aberdeenshire, and got by the champion Baron's Pride. He is owned by Messrs. A. & W. Montgomery, Kirkcudbright, and is on all hands acknowledged to be one of the finest specimens of the breed seen for many a day. The champion female was the first-prize two-year-old filly, Sarcelle, got by the celebrated Everlasting 11331, and owned by Mr. H. B. Marshall, R a c h a n, Broughton. Like the colt, she was bred in Aberdeenshire, her breeder being Mr. Anderson, Com-

istly, Huntley. Curiously enough, the dams of both these champions were got by the celebrated Prince Thomas 10262. The family prize for Clydesdale yearlings was won by Mr. George Alston's Revelanta, a son of Baron's Pride, and a Cawdor Cup winner. Everlasting is also a son of the same horse, so that the recent show was another Baron's Pride victory.

"SCOTLAND YET."

REPLY TO HON. JOHN DRYDEN.

Editor "The Farmer's Advocate":

It was, no doubt, with interest that we read the letter in your issue of April 23rd, from the pen of Hon. John Dryden. Permit one of the younger men, and, I think, the first one to advocate in your columns the transferring of the Winter Fair from Guelph to the then Toronto Junction, to answer Mr. Dryden. If we refer to the letter mentioned, I think we can prove the necessity of moving this important Fair with Mr. Dryden's own arguments. I think, too, that he was uninformed as to the fundamental reasons underlying the agitation to move the Fair. I know that I am treading on dangerous ground when answering Mr. Dryden—dangerous in that, as a mother defends her offspring, so Mr. Dryden will defend what was, when he was Minister of Agriculture for Ontario, one of the most successful foster-children of the Government. But in the interests of live stock, one should be willing to



A Hunter with Hackney Sire and Thoroughbred Dam.

undergo even the spirited defence the cause may merit.

Mr. Dryden says the Union Stock-yards Co., of West Toronto, "seeks to establish a rival institution." Mr. Dryden is evidently unaware that Mr. Dods, secretary of the Union Stock-yards Co., went to Mr. Monteith, Mr. Dryden's successor, and suggested that the Winter Fair's location should be changed from Guelph to the Stock-yards at West Toronto. Mr. Dods gave his reasons, which we will touch on later, but expressly assured the Minister of Agriculture that no rival fair would be started, as he (Mr. Dods) was in favor of harmonious dealings with Guelph, the Winter-fair Board, and the Government. Does that look like establishing a rival institution? Mr. Dryden, says, too, that the Stock-yards Company and those that are in favor of this movement are uninformed as to the object of the Winter Fair. Surely not. Mr. Dods is an ex-O.-A.-C. man, the writer is, and many who are most enthusiastic in the present movement have been in close touch with the Winter Fair for years. Those interested in this project recognize the old adage, that there is no royal road to learning, still they all feel convinced that if the knowledge disseminated at the Winter Fair be given in a more digestible form, more attractively and conveniently served, a larger amount will be assimilated.

Mr. Dryden seems to be of the opinion that the object in view is the establishment of a purely spectacular exhibition, such as the Chicago International. Referring to the Winter Fair, he speaks of the presence of a few animals of superior quality, and, again, "The show fails in its highest usefulness unless the very choicest specimens are present for inspection." These facts are true, but will Mr. Dryden tell us how we are to get "a few animals of superior quality" or "the very choicest specimens" if there is not some inducement for those who have them to bring such animals to the show? These very ideas—having the best at the show, and continuing the show as at present at Guelph—are as opposite as the poles. Two things attract exhibitors to an exhibition: prize-money, and the advertisement incidentally procured, besides always the credit of winning, or the desire to learn. Mr. Leask did not bring Roan King, the famous Champion steer, to Guelph for two reasons: there was no prize worth winning, and he could not sell him to advantage if he had him there. If the Winter Fair had been at West Toronto, the chances are Roan King would have brought as fancy a price as he did at Chicago, owing to the competitive desire of Toronto butchers to have the best. And as to prize-money, a judicious presentation of spectacular events each day would attract sufficient city people to the show to enable the management to offer prizes of special inducement. With prizes of such a character to strive for, we have men in Ontario who could and would strain every energy to place the best possible on exhibition. Under such circumstances only can Mr. Dryden hope to have "the choicest" on inspection. Then, with an arena, combined with lecture-rooms, waiting and other necessary rooms, as suggested in Mr. Dods' plans, information could be placed before those desiring it in the most approved manner possible.

Mr. Dryden frowns on the introduction of horse exhibits at the Winter Fair, still he says information in regard to the horse industry might profitably be given. To my mind, the horse industry is one of the most neglected of all the various lines of farming, and one which can, through proper teaching, be made the most profitable. From experience, I would say that nothing teaches so well as close competition in the ring, and if horse classes were discussed as fully as sheep and cattle classes, the horse business would be revolutionized. To show to what magnitude it is possible to bring such a fair, let us imagine there were classes as good as the Amos heifer, exhibited for comparison only at the last Winter Fair. I would venture to say that if there had been some steers as good as that heifer at the Fair, the champion wouldn't have been within calling distance of the top. This but shows the possibilities of a good fair, held under proper conditions. It has been experienced many times, at big auction sales of live stock, that, when those attending had been comfortably seated, after a good dinner, the bidding was brisk and hearty. Likewise, if, under similar conditions, these men, in a happy frame of mind, sit around a ring where knowledge of live stock is being disseminated, more will be mentally made use of than under any badly-lighted, poorly-ventilated, poorly-fed conditions, such as prevail at Guelph.

The Union Stock-yards Co., of West Toronto, is one of the largest live-stock centers in Canada, where, through the energies of a few able men, magnificent facilities have been established for the handling of stock for sale. The business of the Stock-yards Company is to handle live stock on commission, or, rather, facilitate such handling. They wish to obtain the highest prices for their patrons, supply their customers with stock of better quality, and generally advance the cause of live-stock interests. Why they should be interested in educational movements can be easily

understood, for, the better the quality, the higher the prices, and the higher the price, the greater the commission—more money for farmer, drover, stock commissioner, and more business for the Stock-yards Company. Stock-yard companies, whether in Canada or the United States, are vitally interested in live-stock improvement. The West Toronto Company is, unfortunately, not in a financial position to spend \$100,000 or \$200,000 in the erection of an arena, and of lecture-rooms, to show classes and lecture thereon. They have made a proposition to the breeders of the country, whereby they could establish, not only a spectacular show, but an educational exhibition such as Canada has never seen. A spectacular show is of no advantage to the Union Stock-yards Company, but an educational fair would be of inestimable value. The proposition presented by Mr. Dods at a meeting of stock-breeders attending the sales held in the Yards in February last, to which meeting, if I am not mistaken, Mr. Dryden was invited, but could not attend, was, concisely, as follows: That, for the purpose of mutual benefit and co-operation between breeders of the various kinds of live stock and the Union Stock-yards Co., an organization, to be called The Canadian National Live-stock Exposition Association, be formed, whose members should qualify by paying a life-membership of \$100. When one hundred members are secured, they are to meet and appoint a board of seven directors, which board could proceed to secure four hundred additional life-members at the \$100 each. This would give a fund of \$40,000 or \$50,000. If this money is secured, the Stock-yards Company agree to supply the balance necessary for the erection of the necessary arena, as before mentioned. Had Mr. Dryden been at that meeting, he would have been struck with the unanimity of all present to form the coalition that would, as Mr. Peter White, of

and encouraging him to continue in his efforts, saying the new show is a necessity. The writer has spoken to men closely connected with the Winter Fair, the names of whom the sanctity of private conversation prevents him from using; they all agree that the idea is right.

The present scheme—the formation of a Canadian National Winter Fair Association—is a chance for the influential breeders and stockmen to become banded together in the cause of general good. The influence of such a representative body of men could hardly be estimated in securing rational consideration of agricultural problems. With such a possibility in view, it would be well for the proposed board to be independent of the Government, not accepting any grant, and so being unpledged and uninfluenced. In this way, and in this way only, a truly open show can be conducted. In such a farmers' fair, any features may be given prominence that a cool-headed, clear-thinking board of breeders and farmers might consider best for the welfare of the farming community as a whole.

For the information of those who may be uninformed, resolutions are before the various breeders' organizations for the consideration of the advisability of bringing about the amalgamation of the Winter Fair and the Spring Stallion Show (Ontario Horse-breeders' Exhibition), and holding the combined show at West Toronto. As the mover of those resolutions, I may say I intend to see the project has proper ventilation, for I know full well that the show, as outlined, is possible, and when a reality, if properly managed, should prove of inestimable value to the Ontario farmer. I have no wish to detract from any good the Winter Fair, as at present conducted, has accomplished—honor where honor is due—but, in return, I demand a serious consideration of this project, which has met with almost universal approval from all classes of breeders.

Mr. Dods has been somewhat disheartened by the tardiness with which subscriptions for the furtherance of this project have been coming in. Perhaps this being a lean year has something to do with that. Perhaps some breeders who would like to subscribe think the agitation recently started was but a flash in the pan. Right here, for those who have fully considered the matter from all sides, and have listed among the subscribers, I may say we are all enthusiastic, we are all serious, and we are all working for what we consider the good of the greatest business in the world, stock breeding and feeding.

This is no money-making scheme, no get-rich-quick organization, but a body of sane, honorable men who are anxious to see a good Canadian Winter Fair, worthy of the country that can send champion fat steers, champion fat sheep, champion stallions and mares, to the great Chicago International; men who are anxious to place before the younger men of the country, for their inspection and profit, the best the country produces; and men who wish to place Canadian products in front of the world in a Canadian show.

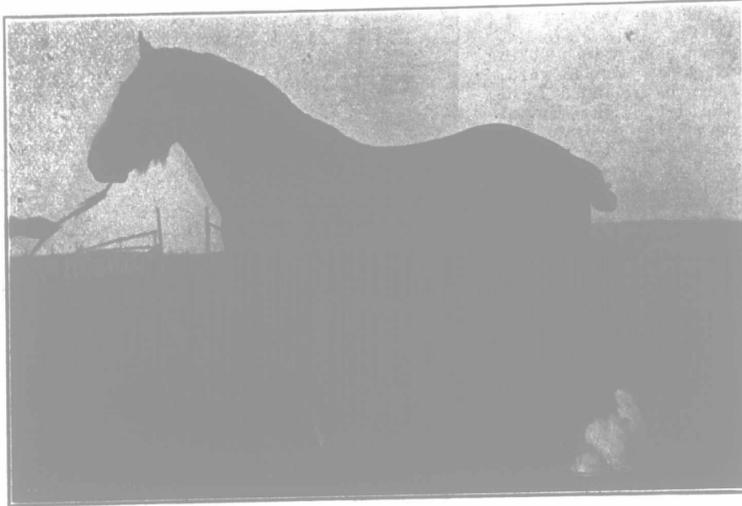
Ontario Co., Ont.

R. E. GUNN.

THE DUBLIN SPRING SHOW.

That world-famed event, the Dublin Catt' Show, has just passed for another year, with all its usual bustle and excitement, having been held at Ballsbridge from the 21st to the 24th of April. The exhibition was, in most respects, a thorough success, and quite upheld the high standard established in previous years. Of course, it must be admitted that the competitions lacked much of the international interest formerly associated with them, as cross-channel exhibits were prohibited by the foot-and-mouth restrictions imposed recently on all importations from Britain by our Department of Agriculture. But this was not altogether an unmitigated disadvantage, as, with the exception of one or two English owners who had bulls in the country prior to the promulgation of the orders, the Irish breeders had no outside competition to contend against, and nearly all the prizes were retained at home.

The weather—always an important factor—was not so favorable as usual: dull and threatening on the first day; rainy on the second; snow on



Celtic Prince (imp.) [5313] (12901).

Clydesdale stallion; foaled May, 1904; sire Everlasting, by Pride; dam by Hiawatha; grandam by Prince of Wales (673). Owned by A. F. O'Neil, Maple Grove, Ont.

Pembroke, said, "Enable us to place our goods in Canadian front windows, and attract the world by the display." Mr. Dods showed what other shows have done as to numerical attendance, gate money, etc., and if such shows are parallel, a future of the proposed exhibition is assured.

If this Canadian International were made a farmers' independent fair, neither asking nor receiving Government assistance, it could then be taken out of the field of political influence and be made, through its own merit, the most important exhibition, from the farmer's standpoint, we have in Canada. Farmers are the men asked to subscribe to the forming of the fair. Farmers will have the control of the fair, and can make the educational features suitable to the farmers' needs. The idea would be to offer prizes sufficiently tempting to bring out the best individuals in every line of live stock, and taking the Winter Fair as a worthy example in this regard, have these winners shown later in commodious lecture-rooms to comfortably-seated throngs of farmers searching for the knowledge their own liberality has made possible for them to acquire. The show, as proposed, would be like the present Winter Fair in every respect, only far outclassing it in prizes offered, classes shown, entries and attendance, held within a few minutes' car ride from the best Toronto hotels and boarding houses, in the only collection of buildings suitable for such a show in the Province.

Why can not this progressive scheme meet with the approval, not only of the press, but the people as a whole? The writer has been talking to breeders of all classes of stock; they all say the plan is good. He has letters thanking him

the third; and a nice blend of all three on the concluding day, did not constitute at all pleasant atmospheric conditions. In spite of all, the attendance was well maintained, being representative of all parts of Ireland, as well as including a large number of welcome visitors from England, Scotland and Wales. The entries of stock received were of a record nature, the great outstanding feature, as usual, being the Shorthorns, of which no fewer than 633 head were entered. The Aberdeen-Angus came next, with 159, and Herefords had 100 representatives—these being our three principal breeds. The other sections were of smaller size, viz.: Jerseys, 59; Kerries and Dexters (our two native varieties), 42 and 44, respectively, etc., etc. All told, the number of cattle entered amounted to 1,051, as compared with 1,633 in the previous year.

This show is especially important to the cattle industry of the country, by reason of the fact that at it each season a number of bulls are selected by the Department for service premiums, under their improvement schemes, and this time 153 Shorthorns, 40 Aberdeen-Angus and 24 Herefords were chosen. To assist farmers who wish to buy one of these premium bulls, but who might be unable to produce the money straight away, a system of loans has been arranged by the Department, and it is interesting to mention that over 50 of these loans were granted during the week for the purchase of yearlings. It is also very gratifying to state that, since this scheme was started, there has been no default in the case of a loan, though some were given to men in very humble circumstances. The arrangement is as follows: The farmer selected by the County Committee to keep a premium bull makes application to the Department for a loan (if he requires it). He pays down one-third of the price of the bull, with a fee of five per cent. to insure it for twelve months, and he is allowed two years to pay off the outstanding two-thirds of the purchase money, interest at the rate of 2½ per cent. being charged, and two sureties guaranteeing the repayment.

In connection with the idea of buying and selling, it may here be mentioned that this year a new and successful departure was made in introducing an auction sale at the show. No less than between four and five hundred head were entered, and though many were not disposed of, some of them realized very fine prices, especially among the Shorthorns, thanks to the operations of Mr. MacLennan, the well-known Argentine exporter, to whom the Scottish sales were forbidden ground this season, by reason of the disease outbreak. Mr. MacLennan bought two bulls from Mr. H. J. C. Toler Aylward, Co. Kilkenny, at 230 guineas each, viz., Diamond Prince and Diamond Lord, both by the well-known prize bull, Diamond Link, and first and second prizewinners, respectively, in the senior two-year-old class. At 170 guineas, he bought Mr. J. Bonis's Orphan's Diamond Royal, a third-prize yearling; at 160 gs. each, the Rev. J. Hall's Gold Leaf, and Mr. G. Dickson's Mile-cross General, the latter a third-prize two-year-old; and among the other lots which he secured were some at 130 gs., 100 gs., and several at smaller sums. For the Earl of Caledon's Caledon Courier, which won a first prize, Sir A. Stepney, Bart., of Wales, gave 210 gs. The best price for Herefords was 46 gs., and for the polled Blacks, 65 gs.

Shorthorns.—Shorthorns were given a number of extra classes, so that, instead of having two for yearling bulls, as before, separate provision was made for animals calved in each individual month, viz., January, February, March, April and May, 1907. Greater uniformity of size was secured by this elaborate arrangement of the younger sires. Among two-year-olds, three classes were given, instead of two, and there was the usual aged division. None of the Shorthorns were of sensational merit, and the absence of cross-channel plums was felt. There was, however, a very good level reached, and many shapely, sappy sires were found in all classes, especially among the aged bulls. Two-year-olds were hardly so free from weaklings as in other years, but some very promising animals appeared among the yearlings. The Challoner Plate, which indicates the championship, was won by Mr. B. H. Barton, of Strathfarn, for the five-year-old roan, Scottish Boy, a heavily and evenly-fleshed bull, of much quality, and a first-rate one to handle, while his noble crest and grand Shorthorn head, and beautifully-turned back-end, made him a stylish cut of champion. Reserve for this trophy was Mr. Toler Aylward's two-year-old Diamond Prince, above referred to. He is a well-ribbed and topped roan, combining grand substance with nice quality. The Challenge Cup for the best yearling was awarded to the Earl of Caledon's Caledon Model, a very handsome, level roan, reserve to which was placed the same owner's Caledon Courtier, a half-brother to Model. Mr. B. H. Barton won the Challenge Cup for the best group of Shorthorns, and the Earl of Caledon the Cup for the best three Shorthorn bulls. Among females of this breed, Sir H. H. Smiley, Bart., Earl of Bessborough, and Mr. B. H. Barton were the owners of the first-prize animals, the second named having the cup for the best pair of yearlings. Among the cows

and heifers quality was much in evidence. Mr. Wm. Duthie, of Collynie, acted as referee, and the other judges of the Shorthorns were, Messrs. T. H. Hutchinson, Yorks; J. McWilliam, Garbity; Geo. Campbell, Aberdeenshire; and C. H. Jolliffe, Darlington. In addition to the exhibitors already named, the leading class winners included the following: Lord Carew, Co. Wexford; Miss Staples, Queen's Co.; J. Welsh, Co. Monaghan; W. C. Brown, Co. Tyrone; T. Porter, Co. Tyrone; F. Miller, Birkenhead; Wm. McDermott.

Herefords.—While Shorthorns are pushing ahead, these great white-face beef-producers are only "marking time" in Ireland. They admirably suit the rich grazing lands of the center of our island, but their deficiency as dairy cattle tells against their general advance. The display at Ballsbridge this week was not so impressive as on some previous occasions, when English exhibitors, including His Majesty the King, sent over some rare specimens. However, the home herds acquitted themselves rightly, and forwarded animals quite as good as if not better than at other times. The representatives of the late E. T. Dames-Longworth were very prominent, and two of the Challenge Cups were won by one of them, a very typical, evenly-balanced yearling, named Minotaur, while this bull also made one of the trio that secured the Cup for groups. Major Hamilton, Co. Cavan; Mrs. Nugent, Co. Westmeath; Major Hillas, Co. Sligo; and last, but not least, Col. Everard, Co. Meath, were the most successful of the other exhibitors.

Aberdeen-Angus.—This increasingly popular breed has a good way to go before it ousts the Shorthorn; indeed, the prospect of such ever taking place is too remote to be entertained seriously—under our present conditions. Still, its

were some interesting displays, particularly of the first named, of which some fine typical specimens are kept by Irish breeders. Of those that won prizes, Messrs. E. Bewley, M. O'Neill, G. R. Swaine, and Mrs. Madden, might be named.

If space permitted, I should have liked to refer to the classes of agricultural horses (including Shires and Clydesdales), of Hackneys, Polo Ponies and Hunter stallions. Also of pigs, both black and white; of butter and other dairy produce, and to the splendid array of machinery and implements shown through the halls, galleries and about the grounds. But I fear I have already exhausted the room which the editor can devote to this big event, which possesses interest for all Irishmen in Canada, and doubtless many others as well. "EMERALD ISLE."

SELLING STOCK BY LETTER.

It is generally advisable, in buying breeding stock, to visit the herd or flock and make one's selections in person, where one may not only see the animal he chooses, but also its sire and dam and family connections, and judge of its suitability to his purpose, and of the probabilities of its breeding true to the approved type. But when, owing to distance, or other reasons, this is not convenient or practicable, one may, by correspondence with a breeder of good reputation, secure very suitable animals, and, as a matter of fact, a very large volume of business, in the aggregate, is transacted in this way, with, on the whole, very satisfactory results. In order to do this, the breeder who advertises his stock for sale should realize that not only his reputation, but his honor and character, are at stake in the transaction of business where he has the advantage of "the party of the second part," inasmuch as he sees and knows the quality of the animal he describes and prices, while the buyer trusts him to do the square thing in the deal. And, for the sake of his own reputation, if for no higher reason, the seller should deal justly with the man who trusts him. As a rule, we believe breeders do act on this principle, and are more particular in giving the buyer good value for his money when so trusted than when the selection is made in person, and on the buyer's own responsibility. There may be, and doubtless are, dishonorable exceptions to this rule, cases in which the seller considers only his own present gain,

and ships an animal he knows is not equal to the description given; but such a man is unworthy of the name of breeder or business man, and is as sure to get into trouble as if he were looking for it. And he deserves nothing better, but will soon lose the respect and confidence of the public, and any good reputation he may have had.

In conducting business by correspondence, the breeder should promptly answer letters of inquiry, whether he can supply the class of animal wanted or not. Undue delay in replying to letters indicates a serious lack of business ability and methods, and will lose a man trade very quickly, for it is probable that the inquirer has written more than one breeder, and may have given his order to one replying promptly, before some of the others are heard from. Replies should state clearly the description of the animal, its breeding, and the price and terms of shipment. A copy of the letter written, or at least a memorandum of the contents, should in every case be kept on file. The business way is to use a copying press, which is not expensive; but, in the absence of this, a very good plan is to write on the back of each letter the name and address of the inquirer, the name of the animal priced, or at least of its sire and dam, and date of birth, the price and terms, and file the letters with others in a rubber band or a string, so that it may be conveniently referred to, in order that the contract may be fulfilled to the letter in every respect, in case a bargain is closed. There should in every such case be a clear statement and a fair understanding as to furnishing the buyer with a registered pedigree and transfer, either at the expense of the seller or the buyer, and a business man who recognizes the justice of the golden rule, of doing as he would



Lady Hope of Ridgewood.

To be sold in Shorthorn dispersion sale of A. D. McGugan, Rodney, Ont.

progress as a beef breed is satisfactory to its admirers, and its influence in this capacity is freely admitted to be very serviceable. As with Shorthorns, the classification for "the doddies" was elaborated this year among the younger bulls. There were bigger entries of the breed, and better quality was shown by the animals than formerly. Mr. Hum Bland, of Co. Wicklow, an ardent Aberdeen-Angus supporter, won, with a fine team, no less than five first prizes, and also the Queen Victoria Cup for groups, but the individual championship went to M. C. Dunbar-Buller, Co. Down, for Elf King of Droagh, a three-year-old bull of great scale and splendid furnishing everywhere over his massive frame. He is not a particularly stylish bull, but his girth and roasts are enormous, and he is very evenly covered. Sir J. F. Dillon, Co. Meath, was the winner of the Cup for the best pair of heifers, with two very sweet blacks. The other leading prize-takers included Earl of Bessborough; A. J. Owen, Queen's Co.; F. J. Robb, Belfast; E. J. Beaumont, Nesbitt.

Kerries and Dexters.—Both our native breeds made capital displays. The first named are capital milkers, and, on the score of thriftiness, are without rivals among any of the present-day varieties. The little Dexters are more of the beefy type, and enjoy great popularity. They have been aptly described as "Shorthorns seen through the wrong end of a telescope." The chief prize-takers were: Kerries—Mrs. Madden, Co. Dublin; Mr. G. G. Mahony, Co. Kerry; Pierce O'Mahony, Co. Wicklow; the Duke of Leinster; and D. M. Rattray, Co. Kerry. Dexters—D. M. Rattray; D. Henry, Dublin; S. J. Brown, Co. Kildare; W. S. Archdall, Co. Meath.

Other Breeds.—Of Jerseys and Ayrshires, there

be done by, will attend to supplying the necessary papers with the least possible delay. The breeder who is careless or negligent in the matter of keeping private records of the pedigrees of his stock, and of dates of service and birth, and of the sire used in each case, will surely find himself in frequent trouble, and will cause no end of trouble and vexation to his customers. The business breeder will take an interest in seeing that stock sold for shipment by him is shipped in good condition, clean and free from lice or disease, with sufficient feed and bedding supplied for the trip; if necessary, blanketed in cold, or shaded by a light covering in hot weather; and, if the animal is tied in the car, will see that the halter does not draw too tightly on its head, and that the shank is long enough to allow the animal to lie down comfortably, and will give instructions, if necessary, for feeding and watering on the way. If it be a pig or sheep or fowl, to be shipped in a crate, he will see that the crate is strong, sufficiently roomy to avoid cramping, and not heavier than is necessary, since the transportation charges are according to weight, the crate included. For small animals, half-inch lumber, 4 to 6 inches wide, for the side boards, is generally sufficiently strong, if well braced; while, for heavy animals, lumber one inch thick throughout is strong enough. It is a good plan to keep on hand a stock of material of standard sizes, ready for immediate use when needed, and crates of different sizes may be made on rainy days, ready for use when required. The business breeder will have his address printed on his letter-heads and envelopes, and address cards to tack upon his shipping crates or tie upon the halter of the animal shipped, thereby advertising his stock and himself as a breeder of some consequence. The old saying, "What is worth doing, is worth doing well," applies with full force in the shipping of stock, and is a paying proposition, since the business character of the man will be judged, to a considerable extent, by the attention given to doing things well.

DIPPING THE FLOCK.

The external parasites of sheep are not very numerous nor difficult to combat. Most trouble comes to the average flock from ticks and scab, both of which can be very readily kept under control. Ticks are indigenous, but are easily disposed of. On account of their universality, ticks are a great annoyance and a serious menace to the whole sum of one's profits. At this season of the year, the warm weather and clipping causes the ticks to leave the ewes and take up their abode upon the lambs. If there is any considerable number of ticks, they will keep both the ewes and the lambs from thriving. It, therefore, behooves any man desiring to prosper with his sheep to rid them of these pests. This is done best and easiest by dipping.

There are many reliable dips in the market, of which there is none easier, cheaper, pleasanter, or more effective to work with, than the coal-tar dips. It will not pay a man to take time to manufacture his own remedy. A 2-per-cent. solution—i. e., 2 parts of the coal-tar product in 100 parts of water, gives a sufficiently strong mixture. These dips can be obtained from your druggist, or ordered directly from the manufacturer.

If a man has a very few sheep and lambs, he may apply the solution from a tub with a brush, or by pouring from a coffee pot, but this method is not absolutely sure in its results. For a flock of twenty or more sheep, it will pay to obtain or build a dipping tank. Except for very large flocks, a tank measuring 12 feet long, 4 feet deep, and 20 inches wide, is sufficient. Make one end perpendicular and the other end sloping, thus making the bottom but 6 feet long. These tanks may be purchased, or may be built of cement or of wood, and set in the ground. The sloping surface may be cleated, to enable the animal to walk out of the tank. Leading to the perpendicular end of the vat, have a narrow runway from a small pen. At the other end build an inclined platform large enough to hold a dozen sheep, and arranged that the drippings from the sheep upon it will run back into the tank. A small tank for dipping lambs may be made of matched plank, lined with zinc, and need not be of larger dimensions than 4 feet long by 2 feet 6 inches high, 18 inches wide at bottom, and 2 feet at top.

Fill the tank two-thirds full of the two-per-cent. solution, having it as hot as you care to keep your arm in continually. It is especially essential for sheep-dipping that the solution be hot. From the enclosed pen at the perpendicular end of the vat, the sheep are driven along the narrow alleyway and jumped into the vat, care being taken to put them below the surface. If one is dipping for ticks, they need not be held in any length of time; if for scab, they must be held in two minutes, and put beneath the surface two or three times, thoroughly soaking the scabs about the head with a brush. The lambs must be put through, also. Let the sheep stand on

the draining platform until they are crowded, then turn them into their shed. Their damp fleeces will help disinfect the shed.

Weak, thin sheep, if unclipped, often require help in coming from the tank, since the added weight of water in their fleece makes too heavy a load for them. Care must be taken with the lambs and smaller sheep that they do not get turned around in the vat and exhaust themselves in trying to get out at the perpendicular end of the vat.

A sheep that is heavy in lamb should never be dipped. The rough handling incident to jumping into the vat and climbing out is altogether too likely to cause abortion, and should not be permitted. This indicates that the proper time for dipping is after all have lambed, and preferably after all are clipped.

If there are only a few ticks upon the sheep, one dipping is sufficient; if the ticks are numerous, wait ten days from the first dipping for any eggs to hatch, and dip again. This second dipping will clean the flock.

The sheep should, in the fall, before coming to winter quarters, be run through the vat again, or treated by pouring. There is no pest which can be so easily eradicated as the tick, and yet causes so much loss. Let the man who has sheep annihilate these parasites, if he hopes for profit from his labor.

J. A. McLEAN.

Associate Prof. Animal Husbandry.

Ames, Iowa.

PREDATORY ENEMIES OF THE WESTERN STOCKMAN.

At the National Live-stock Convention held in Ottawa last February, a resolution was brought forward by Mr. Wright, of Calgary, asking the Dominion Government to give a bounty to encourage the destruction of coyotes, panthers and wolves in Western Canada. The sheep industry, he urged, is practically at a standstill on account of the coyotes and wolves, and in British Columbia on account of the panthers. It has come to a stage, he declared, when people can hardly keep a stock of poultry. Foals and calves also suffer. The resolution was eventually changed to request the various Provincial Governments of Western Canada to give the bounties, but some of the discussion is interesting enough for reproduction.

Interrogated by the Chairman as to why the Dominion Government should be asked for this assistance, Mr. Wright ingeniously replied:

"Because it is a National matter. Take sheep-raising in Saskatchewan and Alberta, it is going to be of great value to the Eastern men to supply us with stock. Besides, we did not put the coyote there ourselves—it belongs to the Dominion. Laughter and applause.) Dr. Tolmie might tell you what destruction they do to the sheep in the West."

Dr. Tolmie (Victoria, B. C.)—I can say that in British Columbia, with its immense tracts of land fit for nothing else but sheep-raising, the industry is held back because of these wild animals, and when you see the people of Alberta eating frozen mutton there is something wrong, and the coyote is largely to blame for this condition. On the Coast we do not have coyotes, but we have wolves and panthers. I know one farmer on Vancouver Island who had killed thirty-five panthers in two years. The British Columbia Government during the last session increased the bounty on the panthers, coyotes and wolves, from \$7 to \$15 a head, and I am told that even with that inducement the panthers get away with 6 per cent. of the sheep. In Old Mexico they were badly troubled with this nuisance, and by carrying on a system of poisoning they have got rid of them pretty well. In Oregon they have also experienced trouble, but there, as in Mexico, the inhabitants all arranged to make a raid on these animals in the month of January, for that is the time they are pregnant. Then there is the plan of chasing them by dogs, but that is not satisfactory, nor is shooting. There is one method of poisoning that works pretty well. You take two grains of strychnine, put it into two or three capsules and insert them into an egg or piece of liver, or a prune; then a man takes a certain area, and he goes on horseback, dragging a bloody hide attached to the horse, and scatters this poisoned bait along the scented trail, being careful never to touch the bait with the naked hand, using a glove for the purpose. With regard to bounties on these animals, it is only right that the different provinces should offer it. In Alberta they give a small bounty, and I do not think it would be impossible for the Dominion Government to do as they have done in Oregon, for if we can establish more sheep in the West we will require more rams from the other parts of our country.

Dr. Bell—I do not think there is any special boundary between the provinces in this matter, that is, a coyote from Alberta can cross over to Saskatchewan, and I therefore think that the Dominion as a whole should look after the coyote.

Dr. Rutherford—While this resolution sounds very nice on the face of it, still I have very great doubts of the advisability of asking people of Nova Scotia and Prince Edward Island to increase the bounty on the killing of coyotes in Alberta. This is a matter always dealt with by the provinces. I remember when in the Manitoba Legislature, we increased the bounty on wolves, to the very great alarm of a number of gentlemen of the legal profession, who thought it a danger. The matter can be got over by the Provinces, if the same principle is followed by each Province, and the same amount of bounty given in each case. I remember, in the Old Country, we used to be greatly troubled with rats, and there was a rat-catcher who in one year produced 750 tails, and the next year double that many heads. If he had produced the heads on the first occasion, I do not think the second crop would have been as great as it was. If the same regulations prevailed in the different Provinces, I do not see that there should be any difficulty in looking after their panthers and coyotes.

THE FARM.

THE BATH-ROOM IN FARMHOUSES.

Editor "The Farmer's Advocate":

I was interested in the letter of S. C. J., in your issue of April 23rd, on the subject of a bathroom in the farmhouse, and particularly in the scheme of a trough in the center of the roof, to run water into a square tank in the attic, and from that to the bathroom, where one can be arranged. The difficulty in adopting that idea in the case of most farmhouses built long ago is that the roof is too low, and the attic, where there is such a thing, too low to admit of a tank of any considerable capacity. Of course, in the case of new houses, provision can readily be made for all the improvements suggested by your correspondent, and which are all sensible and practicable, at a moderate expense. But in old houses, where no calculation has been made for such modern improvements, we must make the best use of what we have. Where a room cannot be spared for the bath, or a part of a room, by putting in a partition for this purpose, I am reminded of an instance where a corner of the spacious cellar in a farmhouse was partitioned off with matched Georgia pine sheeting, oiled and varnished, and used for a bathroom, the water being heated at the kitchen stove, and carried down stairs for the purpose, and the room heated in winter by means of a coal-oil stove costing not more than five dollars, and having a handle, like that of a bucket, so that it could be carried around, and used for heating a bedroom, if necessary. The used water, in this case, was carried by a pipe from the bathtub to the cellar drain, and was a very comfortable arrangement, which any farmer handy with tools could construct at little expense. The absence of this convenience in so many farmhouses, I am satisfied, is not due, in most cases, to penuriousness, but rather to want of consideration, the idea prevailing that, since it was not provided when the house was built, it is too late to think about it now; while, by a little study, and at a very moderate expense, in many cases, it could very well be arranged. The removal or rearranging of a partition or two is not so serious a matter as people are apt to think, and many old houses might be made much more convenient for working in by some such changes. It has been the experience of the writer to live in two farmhouses, built long ago, about as awkward in arrangement as could well be conceived, and which, by an expenditure of from one to two hundred dollars, were so much improved in their internal arrangements as to save many unnecessary steps, and to make the wife and family happy and proud of a dwelling that was formerly very unhandy and unsatisfactory. I am sure it is largely from want of thought, rather than the will, that more of such changes are not made, and the failure to provide a bathroom in most cases comes under this head.

Brant Co., Ont.

C. S.

SPLIT-LOG DRAG IN ALGOMA.

Editor "The Farmer's Advocate":

Having been a subscriber to your valuable paper for a few years, and seeing that so many farmers down east are interested in the split-log drag, I thought I would make one. I made it after D. W. King's plan, in one of the April issues, using 3 x 9 black-ash plank, as I had no log handy at the time. I gave it a trial, and think it is all your paper claimed it to be.

Algoma, Ont.

J. W. FOSTER.

U. S. BULLETIN ON THE SPLIT-LOG DRAG.

The Use of the Split-log Drag on Earth Roads, by D. Ward King, is the title of Farmers' Bulletin 321, issued by the United States Department of Agriculture. It presents the subject of road-dragging in fairly concise form, and also describes the construction and use of a ditch-cleaner. The author estimates that there are at present about 2,000,000 miles of earth roads in the United States, most of which must be maintained by some means more or less expensive. As indicating the cost of maintaining ordinary country roads per mile per year without a drag, figures are submitted showing the cost of such maintenance in six counties in the State of Kansas in 1906. The figures are taken from the official records of the country, and show average cost ranging from \$34 to \$52 per mile, or an average of \$42.50 per mile per year. These figures seem high, and probably include expenditure on bridges, etc. However, we all know that where the road machine is depended on for maintenance of earth roads, results are generally poor and cost high. As contrasted with these data, we have it estimated, on reliable authority, that an earth road can be maintained in excellent condition throughout most of the spring, summer and autumn months at an expenditure not exceeding \$5 per mile for dragging, plus whatever may be required for bridges, culverts, and incidental outlay. We quote the bulletin as follows:

WHEN TO USE A DRAG.

The drag does the best work when the soil is moist, but not sticky. The earth then moves freely along the faces of the slabs. If the roadway is very badly rutted and full of holes, it may be well to use the drag once when the ground is slushy. The treatment is particularly applicable before a cold spell in winter, when it is possible to have a roadway freeze smooth.

A smooth road surface is secured by this method. Clay, when mixed with water and thoroughly worked, becomes remarkably tough and impervious to water. If compacted in this condition, it becomes extremely hard.

Another valuable result of dragging is the reduction of dust, for the particles of clay cohere so tenaciously that there is but little wear when the surface is smooth. Dust on an earth road is due to the breaking up under traffic of the frayed and upturned edges of ruts and hoof prints. If the surface is smoothed after each rain, and the road dries hard and even, no edges are exposed to crushing, and the only dust that forms is that due to actual wear of the road surface.

There are so many influences at work, and conditions are so varied in different localities that it is quite impossible to lay down a general rule for the number of treatments needed to keep a road in good condition. A tough clay or a stiff sandy clay will resist the action of wheels and hoofs for a longer period than a loam, other things being equal. Certain sections of a roadway will require more attention than others, because of steep grades, seepage, exposure to hillside wash, etc. The best guide in meeting these conditions is the knowledge and experience gained while dragging the roadway.

There is one condition, however, in which special treatment should be given to a road. Clay hills, under persistent dragging, frequently become too high in the center. To correct this, it is best to drag the earth toward the center of the road twice, and away from it once.

In soils full of loose stones, or even small boulders, the drag has done good service. The loose stones are drawn into a windrow down the center of the road, while the earth is deposited around the boulders in such a way that the surface is levelled. The loose stones in the center of the road should, of course, be removed. Where there is a large proportion of small stones or gravel, the drag will keep down the inequalities in the surface.

CONCLUSIONS.

The advantages to be gained from the persistent use of a road drag may be summarized as follows:

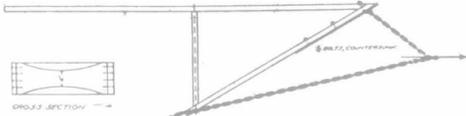
1. The maintenance of a smooth, serviceable earth road, free from ruts and mudholes.
2. Obtaining such a road surface with the expenditure of very little money and labor, in comparison with the money and labor required for other methods.
3. The reduction of mud in wet weather, and of dust in dry weather.

There are also several minor benefits gained from the use of a road drag, besides the great advantages which always accrue from the formation of improved highways, of which may be mentioned the banishment of weeds and grass from the dragged portion of the road.

A DITCH CLEANER.

The following description of the construction and use of the ditch-cleaner is taken from U. S. Farmers' Bulletin, 321, prepared by D. Ward King for the U. S. Department of Agriculture:

The ditcher, or ditch-cleaner, is a convenient device for cleaning ditches. It consists of a guide plank, 2 inches by 12 inches by 12 feet, and a moldboard 2 inches by 12 inches by 8 feet. These are braced with a cross-piece 3 feet long, as shown in figure. The moldboard should be shod with an iron plate $\frac{1}{4}$ inch by 4 inches by 3 feet, held in position with $\frac{3}{8}$ -inch bolts, countersunk. The cross-brace should be hollowed 3 inches on each side at the middle, the following



A Ditch Cleaner.

to begin not less than 4 inches from each end, in order that its bearing against the guide and moldboard planks shall not be shortened, nor the nailing space decreased. This is done to prevent earth from heaping up in front of the brace. A light platform is needed to make the use of the ditcher safe.

The hitch is made as shown in figure, the short side of the chain being about 2 feet 3 inches in length, and the long side 8 feet 3 inches. The chain is made to pass over the moldboard, so that it may clear itself more readily. Two or three horses, according to the difficulty of the particular condition, are necessary to clear a ditch.

To secure the best services from the ditcher, a weight of about 200 pounds should be placed over the front end. The essential thing to be gained is to have the ditcher maintain a smooth,



Nonpareil Count [53215].

Shorthorn stock bull, four years old; included in dispersion sale of the Glenora herd of A. D. McGugan, Rodney, Ont., May 20th.

even surface on the bottom of the ditch. There is then no obstruction to the flow of water. This requires that soft, muddy holes be passed over lightly, and hard, high places be reduced. This result is obtained if the driver shifts his weight forward or backward as a high point or a mud-hole is approached. If the driver shifts his weight forward, the point of the ditcher is driven into the ground; if he moves back, the pressure on the forward end is relieved, and the pull on the chain tends to raise it.

Besides clearing the ditch, the ditcher assists in preserving the slope from the side of the road to the bottom of the ditch. This keeps the road safe from possible accident to traffic from ditches with too abrupt slopes.

MANGELS AND TURNIPS SOWN TOGETHER.

Editor "The Farmer's Advocate":

We always sow Swedes with mangels. Last year our mangels were not more than half a crop, but the turnips grew finely, and we had a big crop. There is not the least danger of the turnip seed running out of the drill first. If the mangels are thick enough, then hoe out the turnips.

Victoria Co., Ont.

J. W. REID.

THE SILO FOR SUMMER FEEDING.

In most years we suffer from intense heat in midsummer, and pastures are often seriously shortened because of drouths. When we are fully acquainted with good siloes, we will have feed ready to carry our live stock over these drouths, and will not allow the heat and flies to so annoy the animals as to cut down a large part of our possible profits. Dry forage is unpalatable in summer time, and root crops cannot be made available early enough, even if we desire them. Our only safe reliance for midsummer feeding, therefore, must be the silo. Some seasons pastures remain fresh right through, when rains are abundant and well distributed, but these are exceptions. The first available crop for soiling or to supplement the pasture is clover. This the dairyman should always aim to have, and, if pastures begin to get dry about the first of July, feed the cows some wilted clover or new clover hay. You will be surprised to see what it will do for them; and, in fact, there is nothing better than a succession of clover cuttings until the fodder corn is ready for the knife, for, of course, if you are dairying, you are prepared for any emergency with a good patch of fodder corn, but generally this crop is not far enough advanced for economical feeding before the latter part of August or first of September. To those who have siloes, the summer ensilage, carried over from last year's crop, is excellent feed to supplement the pastures, and much more convenient to feed than any soiling crop. In fact, it would be a great economy of land to reduce the pasture and provide ensilage for the whole year. But many have not yet built siloes; in fact, a small percentage of farmers have them. Pasturing cattle is an expensive method of feeding, as far as the use of the land goes, and can only be practiced to advantage where this is cheap. As the land increases in value, more stock must be kept on the same area in order to correspondingly increase the profits from the land.

The silo here comes in as a material aid, and, by its adoption either alone or in connection with the soiling system, it will be possible to keep at least twice the number of animals on the land than can be done under the more primitive system of pasturing in summer and feeding dry feeds in winter.

The cows cannot be neglected this summer, and do their possible best next winter. There is as much need for feeding skill and intelligence in the dairy during the season of pasture as through the time of stabling. If the pasture is sufficient for the maintenance and productive needs of the cow, it is manifestly unwise to feed grain in any large quantity, but the passing of the completion of the pasture is invidious, and the change comes on before the careless dairyman is aware. Good dairy management is not in feeding to regain the milk flow that has been lost—that has been allowed to diminish below normal—but in guarding against such falling off. Those who have summer siloes, with an ample supply of feed for the coming summer months, will not worry greatly about weather conditions. They will realize the inestimable value of summer silage as they never have before. Farmers who have not this feed will have to resort to the use of other and perhaps more expensive feed to supply the required amount of nutriment during the summer. Last year, however, should be a warning to dairymen to be prepared for similar conditions in the future. The value of this feed warrants its extensive use in the feeding of dairy cows.

I have often been asked what is the best variety of corn to plant for the silo. From my past observations and the experience of numbers of users of siloes, I would answer that the largest variety that will mature in your latitude, and the one that will give you the most tons to the acre is the best, as only matured corn will make good sweet ensilage. I would advise planting the corn

a little thicker than for a crop of ears, yet the mistake must not be made of planting it too thickly. Eight to ten quarts per acre will be about right for a maximum yield of ensilage. The ears will not be so large as with thinner seeding, but there will be more tons of silage. The cultivating of silage corn should be as thorough as for any corn crop, and it is safe to say, the more thorough the cultivation, the better the corn. Many mistakes have been made by planting a variety of corn which will not mature. The corn should be cut at the stage of maturity when it contains the largest percentage of digestible nutrients. This is when the kernels are well glazed and beyond the roasting stage, but not dead-ripe. Then every portion of the plant is eaten, and is not only palatable, but it contains a high coefficient of digestibility. Should the corn get too ripe, or beyond this stage, it should be well wetted down with water while going into the silo, and you will have good results. I believe that the next day after the silo is filled, the top should be wet down, using as much as two or three gallons to the square foot of surface. This settles the top and prevents its drying out too much with the heat generated. The corn should be cut, if possible, one-quarter inch, at the longest. The shorter it is, the better and tighter it will pack. When you do not use a pipe down the silo, two men should be inside, so as to thoroughly distribute the ensilage, tramping and packing it tight around the edges, and keeping the outside higher than the center. Be sure to get the ensilage thoroughly mixed, not letting the light stuff be by itself, as it will settle more than the other, and leave air-spaces. This should not be overlooked, to get the best results. If your corn becomes too dry, be sure to wet it down well with water. After your silo is filled, no matter how well it has been tramped down and settled in filling, it will settle unevenly, and unless it is levelled off and tramped well three or four times after it begins to settle there will be considerable loss of ensilage on top. By carefully levelling the silage every morning for three or four mornings after filling and tramping it thoroughly around the edges, and with the wetting on top, this loss will be reduced to a minimum. A stream of water as large as a lead pencil, or larger, should be constantly run on the blower or carrier. In this way, fairly good ensilage can be made of corn that for one reason or other has become dry. Every man who has a silo in this vicinity is delighted with the results. There are no complaints about difficulties in filling them, as there were in the early days of the silo; only compliments are heard. All congratulate themselves that the fodder is put away where it can be conveniently fed at all times. Prepare for future dry summers by cultivating more corn and building an additional silo, if necessary.

Central N. Y. J. P. FLETCHER.

SILo BUILDING.

Editor "The Farmer's Advocate":

I whiles get a glint at "The Farmer's Advocate," and read a few articles on siloes, the cost of them, how cheaply they are built, and how little cement is used. I will give you a list of several siloes erected in this locality, and the cost of them, as near as I can:

J. Reneson's.—Thirty-six barrels of cement, and all the stone I could put in; 14 feet in diameter inside, and 30 feet high; walls 16 inches thick at the bottom, and 6 inches at the top; 2½ feet in the ground. Cost for building, \$80.

Benj. Holtby's.—Fifty barrels of cement, and stone bedded in; 37½ feet high, and 14 feet in diameter inside; 4 feet in the ground; walls 18 inches at bottom, and 6 inches at top. Cost \$90 for building it, and the boys helped a day or two. Mr. Holtby put the cost of his silo at \$300, and he is not stretching it.

John H. Anderson's.—Thirty-five feet high; 14 feet inside; 2½ feet in ground; 6 inches at top; 47 barrels of cement used, no stone. Cost \$82 for building, and Mr. Anderson worked four days and a half.

Alex. Begg's.—Twelve feet inside; 30 feet high; 2½ feet in the ground; 2-foot walls at the bottom, and 7-inch at the top; 35 barrels of cement. Cost \$75 for building, and Mr. Begg said it was a model.

Some will think there was a fortune made at these prices, but it is not so; there is more money made ditching at 15 or 20 cents a rod, with less expense, and not so far to fall before he strikes the ground. There is over \$200 invested in the rig for building them. I do all the mixing by hand. We use a box 3 feet square, turn it three times dry and two wet, and we mix it to suit the man we are building for. We use, mostly, ½-inch iron rods to strengthen the walls.

A lot of questions are asked about siloes, such as: Will they crack? They are apt to if you build them with too little cement. Does the ensilage spoil in them the first year? No, it keeps better than in a stave silo. Is nine inches thick

at the bottom enough? No, 18 inches to 2 feet is better; it will have a better chance to stand on end. What is the difference between a stave silo and a cement one? You can put up a stave silo for one-half of the money; but you can buy a pair of shoes for \$2.50 or for \$5.00, and some men will come along and say they will give you big interest for your money. Some jump at the chance and run the risk of losing the whole thing. Some men get a cent that close to their eye that they can't see a dollar past it. Two or three dollars' worth of cement and one or two more rods of iron will be like the five-dollar shoes, giving better satisfaction and 5 per cent. interest on the money invested.

My writing is not very good, and my spelling is worse, but I cannot help it. I was "hirdin craws off the tataters" when I was little and should be at school.

Middlesex Co., Ont. DAVID STEVENSON.

GROWING AND HARVESTING ALSIKE FOR SEED.

Editor "The Farmer's Advocate":

Have seen in your paper lately inquiries as to growing and harvesting alsike clover for seed, so I thought I would give you my experience with it. I have found that the most suitable land is heavy clay, as, if one has too heavy a crop of straw, you do not have the quality of seed. I have heard that buyers say the best sample of seed obtained in Ontario is grown in McGillivray Township, Middlesex County, on such land as I have mentioned.

One year I went over it with the mower about the end of May, and had a good crop of seed. Another year I pastured it for a time, but dry weather came and the crop was a total failure. So, taken all around, I believe it is safer neither to mow nor pasture, especially on the right kind of land.

As to harvesting, a large majority of farmers cut their clover before it is all ripe, and thereby lose a great deal of seed, as the green and un-matured seed dries up and blows out with the chaff. This is one principal reason why there are so many poor yields. When clover is ripe enough to cut for seed the heads are black, and the stalks dead almost to the ground. The mistake is generally made through failing to make a close examination. It often occurs, when the season is hot and dry, that the heads of the clover will turn brown, and the clover will appear to be ripe; but, examining closely, you will find that the insides of the heads and stalks are perfectly green, and the seed in half of the heads is not yet in the dough, and, of course, all such seed, if cut in that condition, will be a total loss.

I see, in your issue of April 30th, a letter from C. R. M., of Peel Co., advising cutting by means of a mower with table attachment. Now, for some years I have been using bunching attachment, with which the above is not to be compared. I have also been told by others that they would not be without it under any consideration.

Middlesex Co., Ont. WM. L. CORBETT.

SOWING MANGELS AND TURNIPS TOGETHER.

Editor "The Farmer's Advocate":

Re sowing mangels and turnips together, I have mixed Yellow Intermediate mangel and Hall's Westboro Purple-top turnips together for five or six years, with perfect success, using a grain drill to sow them, putting mangel seed in the grain box, sowing about six pounds to the acre, and the turnip seed in the grass-seed sower of the grain drill behind, and attaching a rubber tube to the grass-seed sower to carry the turnip seed down into the drill hoe, letting the two rubber tubes run into the one drill hoe. Sow as early as the tenth of May, if possible. Turnips will come up in about a week, and they can be seen in the rows to scuffle before the mangels are up.

Middlesex Co., Ont. OLD SUBSCRIBER.

FAIR DATES FOR 1908.

June 18th to 20th.—Galt Horse Show, Galt, Ont.

June 18th to 27th.—International Horse Show, Olympia, London, England.

June 30th to July 4th.—Royal Agricultural Society's Show, at Newcastle-on-Tyne.

June 29th to July 9th.—Dominion Exhibition, Calgary, Alta.

July 11th to 17th.—Winnipeg Industrial Exhibition.

July 21st to 24th.—Highland Society Show, at Aberdeen.

A 1,200-page Twentieth Century, cloth-bound dictionary may be secured by sending us two new subscribers to "The Farmer's Advocate and Home Magazine," and \$3.00.

THE DAIRY.

DAIRYING IN WISCONSIN.

To review in one article a report like the annual one published by the Wisconsin Agricultural Experiment Station is an impossibility. It is like summing up a man's life by saying, "He was born a man, and died a farmer 60 years after." In order to give readers of "The Farmer's Advocate" an idea of the dairy work alone contained in the 24th report from this aggressive American Station, we give the list of dairy subjects treated:

The University Dairy Herd.

Tests of Dairy Cows.

The Records of Production Made by Colantha 4th's Johanna (this is the champion cow of America).

Variations in the Amount of Casein in Milk.

A Simple Mechanical Method for the Estimation of Casein in Cow's Milk.

Influence of Metals on the Action of Rennet.

The Chemistry of Milk Curdling.

The Coagulation of Fresh and Alkaline Milks.

An Automatic Cheese Press.

Bacterial Content of Machine-drawn and Hand-drawn Milk.

Distribution of Cell Elements in Milk, and Their Relation to Sanitary Methods.

We shall divide the subjects into two parts: (1) The cow; (2) Cow's milk—some of its chemical and physical properties.

THE COW.

The first article deals with the Station dairy herd, established in 1898. "The main object of the investigation has been to study the relation between the composition of rations and the production of dairy cows, with special reference to the influence of a high versus a medium protein ration on the character of the milk, and on the economic production of milk and butter-fat."

The average production per cow for the year, for the herd of 23 cows, was 7,413 pounds milk, 4.16 per cent. fat in milk, and 360 pounds butter. The average cost of the feed per cow was \$36.05. The average value of milk products was \$80.85, leaving a net profit over feed of \$44.20 per cow, for the year ending June 30th, 1907. The variation in the milk yield of individual cows was from 3,333 pounds to 12,019 pounds. The variation in pounds of butter per cow was from 209 to 480. The gross value of products (butter and skim milk) varied from \$46.50 to \$108.43; the cost of feed for the year, \$25.91 to \$44.42; the net profits varied from \$16.88 to \$66.16.

The average live weight for the herd was 1,044 pounds. The number of days which the cows milked was 331 per cow. Commenting on the herd record, the writer says: "The Holstein cow Johanna gave milk 316 days during the year, and produced 11,188.9 pounds of milk and 407.12 pounds butter-fat, equivalent to 475 pounds of butter. The total value of her products was \$108.43, and the cost of her feed \$42.27, making a net profit of \$66.16, which exceeds that of any other cow. A year ago Johanna ranked second in the herd in net profit yielded, with a production of 11,681.5 pounds of milk, 430.29 pounds butter-fat, and a net profit of \$64.59." We are also told that this cow produced, as a four-year-old, 14,856 pounds milk, and 633 pounds butter. Evidently, the "Johannas" are doing well in Wisconsin. Two Jersey cows rank second and third in net profit in the herd for the year. The Johanna cow, and the Jersey which ranked third in profits, each have a fine calf in addition to the net profits on milk products. Where is the animal on the farm that comes anywhere near the cow for profit?

ECONOMIC WINTER FEEDING.

"The seven cows which averaged in production more than one pound of butter-fat per day consumed, on the average, 19.5 pounds of dry matter, and 1.70 pounds digestible protein, for each pound of butter-fat produced. The five cows which made, on the average, less than one-half pound of butter-fat per day, consumed, on the average, 46.5 pounds of dry matter, and 2.97 pounds digestible protein per pound of fat produced. These figures emphasize the importance of having fall cows for profitable production of milk and butter-fat during the winter, and, in case cows are not fresh, the importance of exercising great care to feed them according to their production. Cows which are high producers can consume daily large amounts of dry matter, containing as high as two or three pounds of digestible protein, and be expected to utilize their feeds economically; while cows which are advanced in lactation and are low producers should be fed less grain and feeds of a cheaper quality, if they are to yield any profit whatever."

The foregoing paragraph is worth the careful consideration of all dairymen producing milk during winter. Fresh cows and plenty of succulent food, such as silage and roots, together with clover hay, and 8 to 10 pounds meal daily, per cow, will enable profit to be made, though the price of feed may be high. Fortunately, high

prices for feed usually are accompanied by good prices for dairy products. If this were not so, the profits of the dairyman would nearly vanish during a season like 1907.

COW-TESTING.

The Experiment Station takes charge of all official and semi-official tests of cows tested in the State. More than a dozen men were employed in testing the 345 cows tested during the year. This is a great showing. Breeders of dairy cattle in Ontario will be glad to know that a permanent man has been recently added to the Dairy Staff of the Ontario Agricultural College to supervise official tests.

Of the 345 cows tested by the Wisconsin Station during the past year, 233 were Holsteins, 99 Guernseys, 6 Jerseys, 3 Ayrshires, and 4 grades. The tests furnish breeders of dairy cattle with definite information as to the productive capacity of their cows, and thus enable them to plan their breeding operations systematically, with the best possible assurance of success.

The writer goes on to say: "The evident trend of opinion among progressive dairymen and students of dairying is to the effect that tests conducted for a period of lactation or an entire year are of the highest value for determining the capacity of a cow for dairy production, and for this reason we urge our breeders to make provisions for having such tests made, rather than for brief periods of a week, or even a month."

A WONDERFUL RECORD.

The record of Colantha 4th's Johanna was supervised by the Wisconsin Station. It is pointed out that this cow in 24 hours produced over 4½ pounds milk fat, equivalent to about 5 1-3 pounds of commercial butter. The ration fed to this cow was as follows: Thirty pounds corn silage, 35 pounds sugar beets, 10 pounds clover hay, 21 pounds meal, made up of equal parts, by weight, of wheat, bran, ground oats and gluten feed, and 3 pounds oil meal. If we understand the foregoing, the cow was fed 24 pounds meal daily during the seven-day test in which she produced 651.7 pounds milk, testing 4.32 per cent. fat, and produced 28.176 pounds milk-fat. If we add one-sixth to the fat in calculating the amount of butter which could be made, we have 32.872 pounds butter, or an average of over 4½ pounds butter per day for the 7 days. During these 7 days, the cow consumed in her feed, in order to produce 100 pounds milk, 45.1 pounds dry matter, and 6 pounds digestible protein, or a total of 33.3 pounds total digestible matter. To produce one pound of milk-fat she required 10.6 pounds dry matter, 1.4 pounds digestible protein, and a total of 7.8 pounds digestible matter. This is a remarkable showing, and again proves that a good cow is one of the most economic consumers of rough feed for the production of fine human food. There is food for thought in the foregoing records of feed and milk production. H. H. D.

STABILITY IN BUTTER PRICES.

A glance over the review of the United States butter trade for the year ending April 30th, 1908, is full of encouragement for those engaged in the butter business. In the main, the conditions prevailing in Canada are likely to correspond with those in the Republic, for in both the consumption of butter will steadily increase, and the better it is, the more of it will people eat. In so far as prices are concerned, the record was the highest in twenty years, being about one cent above the previous season. There were shortages of supply in the great markets of Boston, New York and Chicago, and it was not till December that the first tub cleared from New York port for Europe, the total out-go, some 36,700 packages, being the smallest in a dozen years. The growing population and higher standards of living in America are evidently causing the demand for the finer food products of civilization to keep ahead of the supply, despite all the public attention paid to dairying. The butter business is safe.

THE SPREAD OF THE SEPARATOR.

From personal observation in the dairy districts, and by reports received, it is evident that there is this season a large increase in the number of cream separators being installed by farmers. This has been encouraged by the more uniformly satisfactory price of butter (due partly to the improved quality of the product, made possible by the use of the separator), the desire for fresh skim milk for feeding purposes, and, throughout the cheese sections, the making of the cream from Saturday night's and Sunday morning's milk into butter for home use and customers, instead of sending it to the factories.

A GOOD DAIRY HERD RECORD.

For a good many years past J. H. Gridale, Agriculturist at the Central Experimental Farm, Ottawa, has interested himself in a very practical way in the work of dairy-herd improvement by selection. Blank ruled forms are sent out to anyone who applies, which facilitates the work of keeping track of the daily milk production of each cow, while blanks for recording the feed consumed are also available. Many hundreds of dairymen all over the Dominion have thus been interested in cow records, and from the reports supplied by them Mr. Gridale obtains many interesting data. He has been good enough to favor us with the report of a herd belonging to L. & B. Kelly, Kelvin, Ont., for 1906 and 1907. The report affords an excellent example of what can be done by careful feeding and study of cows. It will be observed that they did much better with their cows in 1907 than in 1906, probably due to better feeding and management in the light of exact daily knowledge of what the individual cows were doing.

SUMMARY OF MILK RECORD FOR THE YEAR 1906.

Herd owned by L. & B. Kelly, Kelvin, Ont.

Cow's Name.	No. of days milked.	No. of Lbs. of milk from each cow.	Age of Cow
White Face	302	10,032	7
Dandy	298	9,574	7
Valentine	297	8,138	3
Patrick	292	7,510	3
Lill	275	9,441	7
Frank	299	8,631	7
Lill II.	283	9,185	5
Daisy	277	7,959	3
2,323 days		70,499	

8 cows in 10 months gave 70,499 lbs. of milk.
 8 cows in 10 months gave an average of 8,812 lbs. of milk per cow.
 Cows milked an average of 290 days in year.
 Cows produced a daily average of 30 lbs. of milk during the season.

SUMMARY FOR YEAR 1907.

Cow's Name.	No. of days milked.	No. of Lbs. of milk from each cow.	Age of Cow
White Face	291	9,800	8
Dandy	319	10,038	8
Valentine	318	8,229	4
Patrick	280	8,692	4
Lill	278	10,427	8
Frank	357	11,504	8
Lill II.	338	11,785	6
Daisy	312	10,504	4
Schuling	249	6,064	2
2,721		87,023	

9 cows in 12 months gave 86,385 lbs. of milk; an average of 9,670 lbs.
 Cows were milked 302 days (average) during the season.
 Cows produced a daily average of 32 lbs. of milk during season.

POULTRY.

BROODING YOUNG CHICKS.

[Second part of an article on Hatching and Rearing Chickens by Natural Methods on the Farm, by John H. Robinson. The part devoted to hatching appeared in "The Farmer's Advocate" of March 19th.]

For brooding chicks, the farm has great advantages, and they should be fully utilized. Even a farm too small to give fowls free range without their trespassing on neighbors, has advantages far surpassing those of the town poultryman, who must make up for lack of natural advantages by special care to provide variety in food, to maintain a healthful cleanliness, and to guard against the evils incident to the crowding of chicks on limited areas. If there is no part of the pasture or orchard available for small chicks, and convenient to house, it will certainly pay the grower of chickens to give up to the smallest of them a piece of grass land as large as they need. That would be a piece as small as they could keep the grass down on without killing it out. In an ordinary season, this would be a piece as large as required to place the coops about two rods apart each way, and have a margin about two rods wide outside the coops all around the plot. In a wet season, or where the growth was rank, the coops should be closer together; under the opposite conditions, farther apart. The loss of hay from the land given up to the chicks would be at least in part made up by the heavier crop from the piece next year, for the droppings of the chicks will distribute quite evenly over it a high-grade fertilizer.

Supposing a piece of mowing land, on which the grass is well up, is to be devoted to the little chicks. It should be mowed before they are placed on it, because, if left long, the chicks would get too wet running through it when the

dew is on it in the morning and on wet days; and so it would be necessary to keep them shut in the coops more than is desirable. In respect to chicks running in wet grass, it may be said that rugged chicks are not injured by it in ordinary weather, when the sun and air dry them quickly, and when the hen, confined to the coop, keeps dry, and if wet and cold they can go to her and be quickly warmed and dried; but weakly chicks do not stand much wetting, nor can any chicks stand much wetting, if they cannot quickly dry themselves after it. Let chicks run when conditions are favorable; at other times keep them confined. When there is so much unfavorable weather that chicks would be shut in too much if this rule were followed, keep coops in the same places long enough to keep the grass short around them, and keep a dish of dry feed—shorts and meal mixed dry will answer—beside the coop, that the chicks may remain near it.

If the plot given to the chicks is convenient to the house, the chicks will nearly always get better attention than if it is at a distance, because then the care of the chicks will interfere less with other work. On some farms, where large numbers of chicks are grown, the men do the morning feeding, watering, cleaning, and heavier work, and close the coops at night, the women feeding them at intervals through the day. When it is too inconvenient to make several feedings daily, food may be kept by the chicks, but that practice is not to be recommended unless they have a much larger range than indicated by the arrangement of coops suggested.

Ordinarily, coops placed in that way should be moved their own width or a little more daily, until the original position of the next coop in line is reached, then backward or forward the length of the coop, and back toward the original position. Moving this way is done when the coops are opened or closed, and the time taken is scarcely noticed.

The best results in growth and development will be obtained by alternating hard and soft foods. Give a mash in the morning, shorts and meal in equal parts, with a little beef scraps added; a feed of grain, wheat or fine-cracked corn about 9 o'clock; mash again at noon; wheat or corn about 4 o'clock, and mash just before dusk. The grain foods may be scattered at the time the mashes preceding them are fed, if conditions are such that the chicks do not soil the grain too much before they eat it. When grain is soiled by their feet, even on quite clean ground or grass, it becomes, in a degree, poisonous, and dangerous to the chicks, just as filthy water is.

To many, the idea of feeding whole wheat to little chicks may be novel, and seem absurd, but the writer has done it for the last fifteen years, and grown as good chicks and lost as few as when only very fine grain was given early. Chicks start slower on a diet in part of hard grain, but develop better digestive capacity, and later will stand heavier feeding and develop better than those kept too long on soft food. To keep chicks free from lice, dust them with insect powder when taken from the nests, then once a week for three or four weeks.

By the time the chicks have outgrown their first piece of ground, there should be other places on the farm to which they could be transferred. For the weaned chicks, coops about three feet by six feet, easily moved about, called "roosting coops" by poultrymen, are as good as anything. These may be placed on mowing land after the first crop of grass is off, or at the edge of a cornfield, where the corn is well started, or a piece of asparagus on which cutting has ceased, or anywhere that the chicks can have room without damaging anything. In general, it may be said that, when they can do no damage, they always do good. The one most important point in growing chicks is to give them plenty of land room. Many poultry-keepers are careful to keep coops scrupulously clean, but are rather indifferent about soiled and contaminated ground. This is not strange, for the great advantage of a good range is not often apparent, except to those who compare the development of chicks on land that looks clean, though it shows the wear of chickens on it, and on land that furnishes more liberal range. After fowls are grown they will stand close confinement, but growing chicks should have room, and, if limited for room, must have special care to compensate.

The feeding of chicks after weaning should continue along the line on which they were started. Unless the land furnishes an unusual amount of food, it will pay to keep up the four or five feeds a day, until they begin to be indifferent at some of the feedings. Then omit one feed—the soft feed at noon. When this point is reached, the chickens will get along very well with no attention between the time the hard grain is given them in the morning and the time for feeding it in the evening. At both feedings it should be well scattered, and the evening or afternoon feeding should be several hours before sundown to give them ample time to eat a feed of scattered grain. Then, just before dusk give them all the

mash they will eat. They will eat quite a hearty meal of this after they have fed to a surfeit on grain, and will make growth proportionate to the quantity of food eaten.

PREPARING FOR NEXT WINTER'S EGGS.—II.

The first point in getting plenty of eggs next winter has been attended to already, viz., hatching eggs which come from a good hardy strain. The second point is in the making right now. That is to say, don't let the growth of the chicks be checked, even for a day. It cannot be made up later on. Keep them growing until they are mature pullets in the early fall. By this, I do not mean to feed them highly so as to get flesh or fat. It is better to pay chief attention to getting a healthy, hardy constitution, which is the result of plenty of exercise and of natural feeding, which they will obtain in an orchard run, supplemented by all the grain they want. After the crops are harvested in the fall, the fences separating the orchard from the garden or root fields can be taken down (it is a good plan to have them portable), and the pullets will find the conditions exactly right for bringing them to maturity. The cockerels can be separated and placed in another run as soon as sex becomes distinguishable, and fed for rapid fleshing.

Pullets hatched around May 1st should be well on towards maturity by the time cool weather begins in the fall. The house in which they are to spend winter quarters should now be made ready, so that they may become accustomed to new surroundings by the time they have arrived at the stage to lay. This should be some time in October or early November, as, if they reach the season of real winter in an unproductive condition, egg-laying may be postponed until early spring.

The processes of a successful chicken man generally develop gradually, one improvement leading to another. This is particularly the case in the matter of housing. The simpler the accommodation, however, the better it works. The keynote should be to get as near the conditions prevailing in the natural egg season as possible; and this is approached most nearly by a combination composed of fresh air, without drafts, sunshine, and plenty of exercise. To meet these requirements, different people have very different ideas and methods, but I have come to the conclusion that the following is hard to beat: The house should face the south, and the southern wall should comprise at least one-third window and one-third muslin (or factory cloth). This combination will render it bright, warm, airy and dry. The roosting compartment should be enclosed, so as to avoid drafts, the floor of the same being represented by the dropping-board, placed high enough above the ground so as to allow room for nests, and yet give all the floor-space to the hens. The nests should be attached to, but detachable from, the dropping-board, so as to admit of easy cleaning; they should face the back wall of the roosting compartment, so as to be dark and quiet, and should have an opening towards the back, from which the eggs are readily obtainable. On very cold nights, a burlap curtain, from the top of the roosting-room to just below the edge of the dropping-board, will give all the warmth, additional to the animal heat of the birds' bodies, which is required. On the floor of the house, formed preferably of clean sand, at the beginning of fall, I place as much litter, in the shape of dead leaves, straw, etc., as I can lay hands on, and into this I throw their grain, which consists mainly of wheat, but varied with corn, buckwheat, barley, etc. Searching for the kernels of grain, the birds will keep themselves busy and warm, and in best condition for egg-laying. I need scarcely say that the greatest possible cleanliness should be observed, an occasional coat of whitewash over the walls and everything in the room being a detail which it pays to observe. In the winter, also, I place in the house a box or old tub about three-quarters full of coal ashes or dry sand, in which the birds can take a dust-bath.

I will now give my actual results during the past winter. They are not offered with any idea that they are phenomenal. In fact, I am pretty sure they would have been better had I always had time to do exactly the right thing at exactly the right moment. Probably, too, the record of eggs would have been comparatively better with fewer birds. It is claimed that each chicken requires six square feet of floor-space. My thirty Barred Rock pullets had more than that, but 10 square feet is probably better. In the previous year (winter of 1906-07), when I only had twenty pullets, my egg record was nearly as large as it was this year, with thirty. Anyhow, I will give this past winter's results just as I find them in my daily notebook. The birds started laying about the middle of October, and laid: 1907—October, 17; November, 186; December, 345. 1908—January, 397; February, 369; March, 457. It will be noted that there was a gradual increase from the start, and that by December, when prices for eggs are usually at their highest, the produc-

tion had already become fairly large. The thing to do is to get a large number of pullets in good laying condition before that month, which can only be done by treating them so that their development, from incubator to nest, shall go on without check or setback. W. P. F. York Co., Ont.

A WINTER'S EGG-RECORD.

Editor "The Farmer's Advocate":

I have been interested reading the records of some of the poultrykeepers, and think, perhaps, I have a pretty good record to report. I commenced the winter with 26 Barred Rock hens, 16 of them pullets.

In December they laid	117 eggs
In January "	309 "
In February "	349 "
In March "	448 "
In April "	484 "
	1,707

At the end of April I had three hens with chickens, and others getting broody. Peel Co., Ont. (MRS.) A. G. SIBBALD.

APIARY.

SPRING SESSION MIDDLESEX BEEKEEPERS.

In spite of the somewhat unpropitious weather on Saturday, May 2nd, there was an excellent turn-out of beekeepers at the City Hall, London. Pres. F. J. Miller called upon Geo. Kimball for an address. Mr. Kimball advocated a winter repository, made above ground, in preference to outside wintering. His bee-house was made with 4-inch hollow wall, then 12 inches sawdust, and outside of this 8 inches of a hollow wall. There was six inches of sawdust packing above. He also had a 6-inch-square pipe bringing fresh air into the cellar, and another taking the foul air from the cellar; both pipes went up in the air, like a chimney. Unlike most beekeepers, Mr. Kimball did not consider the variations of temperature, as a result of being above ground, injurious.

John McEwen, in an excellent address, advocated outside wintering, but wanted the apiary sheltered from strong wind. His apiary was east of his house. His loss for years had been in a place angling across the rows where the west and south-west winds could strike. He had planted a spruce hedge, and, until high enough, was using lumber to break the wind, and this year he had no loss. R. F. Holtermann gave a similar instance, confirming Mr. McEwen's statement.

For spring management, Mr. McEwen, who winters his bees packed on their summer stands, as soon as weather in spring will permit, fills combs with syrup made in the proportion of two of granulated sugar to one of water. The two combs next the hive walls are taken out, and the combs with syrup put in. This syrup can be used by the bees for brood-rearing, and gives them a great stimulus. When the combs are put in the hive, the entrance is contracted from four inches to one-half. The bees show a little excitement the day the feeding is done, but none after the entrance is enlarged to its normal size.

Secretary E. Barnard began winter preparation in the preceding July, when old queens in the apiary were displaced by young. He found that, where there was no fall flow and a young queen, the queen would lay eggs, but the bees destroyed them, not being willing to feed the larvae. If there was an old queen, and he stimulated the colony, the old queen would not lay; so he wanted a young queen, and to stimulate to produce young bees to go into winter quarters.

Robt. Wallace was a strong advocate of feeding bees water with salt, having it convenient in the apiary at all times. Jas. Armstrong endorsed Mr. Wallace's statement. He considered an excellent plan was to build a trough 6 feet long, half-filling it with sawdust, and then soaking this with water. Mr. McEwen used wooden boxes, about a foot square, with floats; he put a tablespoonful of salt to a gallon of water. His two boxes hold 25 pounds of water, and on Friday, May 1st he found it necessary to fill these feeders three times, so fast did the bees take the water.

W. A. Hill, St. Thomas, gave a talk on the development of the extracted-honey trade. The greatest difficulty beekeepers had had to contend with was the thought that the honey, when granulated, was sugar. He made a display many years ago of 800 pounds of granulated honey in glass at the Southern Counties Fair. It surprised people.

The advisability of packing colonies with flax chaff or forest leaves was discussed. F. A. Gemmill preferred leaves; Messrs. D. Anguish and Pres. Miller preferred the flax.

Foul-brood matters received considerable attention. It was thought that a larger Government grant and more inspectors would be needed to stamp out the disease, and the following resolution was passed: "That the Middlesex Beekeep-

ers' Association would earnestly point out the need of a larger Government grant and more inspectors to stamp out the disease known as foul brood."

In the discussion, some thought it would be well to have an inspector residing in the county.

A pleasant event in connection with the meeting was the election of Mr. R. F. Holtermann to honorary membership in the association, in consideration of services rendered from time to time.

INCREASING THE YIELD PER COLONY.

The recent convention of the beekeepers of Simcoe County, Ont., was unusually enthusiastic. The convention was held in Barrie, and presided over by the president, C. H. Wilson, Hawkestone, Ont. The secretary, Mr. Dennis Nolan, received the reports of winter losses. Bees had wintered well, probably not more than ten per cent. being the loss. The cause of loss appeared to be largely due to improper and insufficient winter stores. The safety of giving a heavy feed of sugar-syrup stores in the fall was felt by several present. Almost everyone present reported that bees had consumed an unusual amount of stores during the past winter, and it was felt that a note of warning should go out to beekeepers to prevent heavy losses during the present backward spring.

Arrangements had been made to have R. F. Holtermann, of Brantford, present. The subject with which he dealt was, "How to Increase the Average Yield of Honey per Colony." He stated that the average beekeeper did not give enough stores for winter. The hive should be contracted so the bees would cover the combs. Shelter during spring was very desirable; with high winds, especially during such springs as the present and that of 1907, was a bad thing for bees. Wherever possible, the apiary should be sheltered from wind, and especially the prevailing wind. Mr. Holtermann advocated large hives, shade and ventilation, to prevent the desire for swarming. Large colonies, other things being equal, gave the best yields, more by preventing the breaking up of colonies, the beekeeper had more uniform colonies for winter, and they would winter better. Too little attention was paid to blood in bees. A good strain of Italian bees, mixed with Carniolan, was what Mr. Holtermann aimed at in his own bees, the only objection to pure Carniolan bees being the tendency to swarm, and, in running out-apiaries this was a serious objection. If he ran one apiary, remaining with the bees all the time, he was not sure that he would not have pure Carniolan blood.

MOVING BEES A SHORT DISTANCE.

A question was asked as to the best time to move bees a short distance. It was advised, if the distance was less than a mile, to move them directly after the first cleansing fly; otherwise, after the bees had begun to work on blossoms they might return to their old location and be lost. If the distance was greater, and the bees were packed, it was advised to move them when the colonies required supers, and to leave them with their spring protection as long as possible.

GARDEN & ORCHARD

CHEESE-CLOTH SCREENING FOR CABBAGE PLANTS.

The growth of cabbage plants for late setting has a very uncertain venture in parts of New York State for several years. Maggot-flies and flea-beetles have become so plentiful in cabbage sections that only small fractions of the seed sown give plants worth setting; so that many growers have had to import large numbers of plants from other States, with greatly increased expense and liability of introducing disease. A simple, and, so far as tested, a feasible and cheap method for controlling insects on seed beds, was tested (not originated) by the Geneva Experiment Station last year, and the details of the experiment are given in Bulletin No. 301. A small bed was covered with cheese-cloth screening and the plants completely protected from maggots. From 1,800 square feet of bed 50,000 sets were taken, while from a check plot, intended to set 40 acres, only plants enough for a little over four acres were secured. By taking off the cover for a week before setting, the plants were "hardened" so that there was no more wilting than with plants grown in the open air. The screening method is very inexpensive, and is apparently more promising than any spraying or soaking of the soil with insecticides.

ROT IN COLD-STORED FRUIT.

Cold storage of fruits has its problems, as do other phases of the fruit industry. To one of these problems, that of the susceptibility of stored fruit to various rots, Bulletin No. 297, of the New York Agricultural Experiment Station, Geneva, contributes valuable data. The experiments show that certain rots are perfectly controlled at temperatures ordinarily used in cold storage, but that blue-mold is still active at or just above the freezing point. A method of destroying the germs of the fruit-rot fungi is also given. Both storage warehouse men and fruit growers should know the facts shown by this bulletin.

CULTIVATION OF THE APPLE ORCHARD.

The apple is supposed to have been cultivated over 4,000 years. During that time much has been learned about tillage and general orchard management, yet, strange to say, in this day and age the average Canadian apple orchard is handled in a shockingly unintelligent and thriftless way. To be sure, there are creditable exceptions, and some whole districts, notably the Annapolis and Cornwallis Valleys, of Nova Scotia, are famous examples of approved culture. Of late years, some few sections of Ontario are waking up to the possibilities that lie in improved orchard practice, but it is probably within the mark to state that nine out of ten apple orchards in this Province bear fruit in spite of the treatment to which they are subjected. Pruning, spraying, fertilizing and cultivation are commonly neglected or indifferently performed. Our present purpose is to consider cultivation.

There are many ways of handling orchard soil, but only two proper ones, and one of these should be regarded as of but limited application. First of all, let us mention four prevalent wrong methods. These are grain-raising, cropping to hay, pasturing sheep, hogs or poultry, and raising hoed crops. The first two methods are the worst; the latter ones have some compensating features, and, while inadvisable as a general practice, they are not wholly bad. The advantage of pasturing is that it destroys worm-infested, fallen fruit, thus waging a war of reduction on the troublesome codling moth; it also distributes some manure on the land. The raising of hoed crop is preferable to cropping grain or hay because it involves early and thorough spring pulverization of the soil and subsequent surface tillage. Its special disadvantage is that the cultivation is liable to be continued too late in the season, thus prolonging wood growth, and resulting in the production of much tender-wood that is liable to winter-kill. The stirring of the soil incidental to the digging of a crop of potatoes has been credited with thus prolonging growth and resulting in considerable killing-back during the ensuing winter.

Aside from and beyond the specific objections urged against the above lines of orchard practice, the whole four are bad, because they exhaust the soil of moisture and plant food. In fact, the first three make their heaviest demands during spring and early summer, when the tree is in special need of moisture and plant food to produce growth and fruit. While any attempt to leech from the orchard a crop other than fruit is to be strongly deprecated, where it is resorted to a short rotation of hoe crop, grain and clover is probably better than to continue any one indefinitely.

But the orchard soil, after the trees come into bearing, should be reserved as an exclusive feeding ground for the tree-roots. A bearing orchard makes a severe annual tax on the plant food in the soil, and during a considerable part of the season is liable to be heavily handicapped by lack of moisture as well, unless a liberal supply is conserved by frequent surface cultivation designed to preserve a loose earth mulch. This brings us to mention the two proper methods of orchard treatment. One is "sod culture," the other is clean cultivation.

In the sod-culture method, the practice is to mow the grass which grows and spread it about the trees as a mulch. This, on rotting down, returns to the soil the fertility that has been abstracted by the growing vegetation. It is claimed that sod-culture results in the production of higher-colored fruit. Its chief advantage, however, is its adaptability for hilly or broken land.

On arable soil, cultivation gives better results in the main. It is commonly and quite advantageously modified by sowing in July a catch-crop, such as clover, buckwheat, rape, oats or rye, to be plowed under the following spring. Under this system, tillage should commence as early in spring as the soil is dry enough to work well, by plowing not more than five inches deep in a young orchard, and not over four in an older one. In the case of an orchard that has been long in sod, a less depth is advisable, else the tree may sustain a severe shock by the mutilation of its many small feeding roots that have gradually developed near the surface. The plow should be immediately followed by roller and harrow, and after that some operation of tillage, such as light disking or harrowing, should be performed after every rain of any account, in order to prevent the formation of a crust. The early cultivation improves the physical condition of the soil by breaking up the particles, thus presenting a greater feeding surface to the roots and increasing the water-holding capacity of the soil. The subsequent shallow cultivation not only keeps down weeds, but preserves a dry earth mulch, which checks evaporation of moisture and acts as a filter to admit air into the soil and subsoil. Moisture and air, combined with heat, are the necessary conditions for the transformation of inert fertility into available plant food. Thus we have two essentials, moisture and plant food, supplied in more or less abundance to the

roots of the trees, though, be it understood, that occasional manuring or fertilizing is requisite for best results, even in a cultivated orchard. In July, cultivation should cease, so as to arrest growth and induce maturity of the new wood. This result will be all the better secured, and at the same time a supply of surplus fertility will be stored up for future use, by sowing a cover crop; but of this, more in due season.

The thousands of apple orchards in sod all over the country are a standing disgrace to Canadian agriculture. They can almost always be told by the yellow, sickly color of their foliage, and the small, uncertain quantity and inferior quality of their fruit. It is false economy undertaking to eke an extra crop off the orchard. It requires a certain amount of nourishment to keep a tree alive. To crop the orchard is generally to deprive it of the extra moisture and plant food that should go to the production of a profitable harvest of fruit. The apple orchard will pay handsomely, if given a chance, but the trees must not be planted too thick, and, on reaching bearing age, they should, ordinarily, have the ground all to themselves, with liberal cultivation and enrichment besides. Occasional seeding down may become necessary in such an orchard to check excessive wood growth and induce fruitfulness, but most of our fruit plantations require more working-up.



Bad Orchard Practice.

Weeds of all kinds, almost as high as the tree trunks, sapping the soil of moisture and plant food that should go to the trees. The foliage in this orchard was of a pale-yellowish tint.

THE FARM BULLETIN.

THE ONTARIO AGRICULTURAL DEPARTMENT ACTIVE.

The Ontario Department of Agriculture is preparing for an energetic campaign during the spring and summer months. Several of the branches have already completed their plans; others have theirs under way.

TO ENLARGE THE WINTER FAIR BUILDINGS.

The live-stock branch is busy with plans for the enlargement of the accommodation for the Provincial Winter Fair at Guelph. Twenty thousand dollars was voted for this purpose at the session of the Legislature recently closed. The City of Guelph is making a grant of \$10,000 for the same purpose, so that there will be \$30,000 available. The plans are not yet completed, but will be ready soon. It is probable that this money will be expended in the erection of a building paralleling the present one, and located at a sufficient distance to the north of the old building to admit of light to both structures. By joining the ends with cross structures an open court would be left in the center, accessible by a driveway under the second story, either on the north side or on one of the ends.

THE FIELD-CROP COMPETITION.

The Superintendent of Agricultural Societies reports forty entries in the field-crop competitions, as compared with ten last year. This work has been greatly enlarged this year, and one hundred entries could be taken care of. The time for receiving entries from the secretaries of the societies has been extended to May 24th. The success of Ontario agriculture depends primarily upon the field crops, whether the product is to be sold off the farm or fed to live stock. Every effort to increase the yield and improve the quality of the crop should be encouraged. Last year the ten societies represented in their entries a total of 3,000 acres of crop. There was an average of twenty members to each entry, or fifteen acres for each individual farmer taking part in the contest. Figured on this basis, and an average of twenty members for each society, there is at date of writing a total of 12,000 acres represented in this year's competition, which will probably be increased to 15,000 acres when all the entries are in. The effect of this cannot but have a wholesome effect in improving the general farm crops of the country. A minimum of five acres is fixed for every individual entry.

The seed fairs held under the auspices of the Agricultural Societies Branch have been well attended. The spring stallion shows have so far proven very successful this spring. There are several more yet to be held. The judges sent out by the Superintendent to these shows, have, judging from the reports received, given good satisfaction.

FARMERS' AND WOMEN'S INSTITUTES.

The Farmers' Institute Branch is preparing for its summer campaign. Five hundred Women's Institute meetings have been arranged for. The ladies who are to address these meetings and conduct demonstration work have recently completed a two days' session at the Macdonald Institute at Guelph, where, under the tutelage of Miss Watson, they received pointers and suggestions as to the best topics to discuss, and as to the best methods of making the meetings effective in improving the home life on the farm. Several new speakers, some of them with experience in this line of work in other countries, have been secured. These give promise of being able to render valuable service in Women's Institute work.

The Dominion and Provincial Departments of Agriculture will co-operate again in the holding of seed meetings. Thirty-five meetings have been arranged for, of which a fuller announcement will be made later. Messrs. T. G. Raynor and T. H. Mason, of the Dominion Seed Division, will be the chief speakers at these gatherings.

A number of the annual meetings of Farmers' Institutes, to be held in June, will be addressed by members of the staff of the Ontario Agricultural College.

The organization of Farmers' Clubs has progressed very rapidly during the past winter. While organized under the auspices of the Institutes, they are in a sense independent, in that they elect their own officers and manage their own affairs.

ONTARIO FRUIT FOR EXHIBITION IN LONDON.

The Fruit Branch has recently forwarded a special exhibit of Ontario fruit to the Franco-Anglo Exposition, to be held in London, England, from May 1st to October 31st. The Dominion Government is making a display for Canada, and will have a Canadian building erected for the purpose. The Ontario exhibit will not be placed in this building, but in the building erected by the Grand Trunk Railway Company. In the Dominion display the Provinces will not be individualized, and the Ontario Department thought it wise to make a special show of fruit from Ontario.

The exhibit consisted of apples in the natural state, and wax models of peaches, plums, pears, cherries, and other small fruits grown in Ontario. The apples were put up in bushel boxes of standard measurements, and were of the finest quality, selected from last season's crop. There were some twenty varieties in all, comprising Spies, Kings, Greenings, McIntosh, Russet, Mann, Baldwins, Seeks, Canada Reds, Wagners, Pewaukees, Starks, Ben Davis, Gano, and others.

Mr. P. W. Hodgetts, Secretary of the Fruit-growers' Association, accompanied the shipment to St. John, and saw it safely in the cold-storage compartment of the vessel.

INCREASE OF SPRAYING.

Considerable spraying is now being done in the country. Some of the co-operative Fruit-growers' Associations are making special efforts in this direction. The Norfolk County Association has purchased 80 additional spraying outfits this spring for the use of its members. This organization uses a power spraying outfit operated by hand. The pump is operated by a man in the tower. The plan has proven very effective. The St. Catharines Cold-storage and Forwarding Company has purchased 45 additional outfits, and is carrying on a more thorough spraying campaign than ever this season. These two associations, and other large organizations, purchase their spraying material in car lots, thus saving materially in the cost.

The Department is continuing the bonus to the smaller spraying associations this year, but on a somewhat different basis. Last year a straight bonus of \$50 each was given where spraying was carried out as directed. This year so much per acre will be given, and the man who does the best spraying will get the largest bonus. The grant for this work is \$6,000. Last year there were 80 applicants for the bonus, whereas the funds appropriated for this purpose were sufficient for 100. The bonus was only given for power spraying. This year it will be given for both power and hand spraying. The inspectors endeavor to visit each applicant for the bonus three times during the season, twice when spraying is being done and once when the fruit is on the trees.

The fruit crop prospects this season so far are exceedingly bright.

BEES HAVE WINTERED WELL.

Mr. Hodgetts, who is also Secretary of the Ontario Beekeepers' Association, reports bees, generally, as having come through the winter in good condition. Beesmen expect a big season. In addition to meeting and arranging a scale of prices for honey, the association's committee, appointed for this purpose, will this season prepare a list of beekeepers who have surplus honey for sale and send it to prospective buyers. At least as many foul-brood inspectors will be engaged this season as last, and probably one or two additional.

There were two cases of black brood reported last year. This type is more serious than the ordinary foul brood, and care will be taken to stamp it out.

CHEESE FACTORIES IMPROVING.

The dairy instructors are now at work making their first visits to cheese factories and creameries. An effort will be made to obtain definite information as to the quality of the milk received at the factories, as well as the quality supplied by patrons. The plan adopted is to have the instructors make composite tests by the Babcock test at five factories in each syndicate or group. These factories will, as far as possible, be representative of all the factories in the group. Tests of the milk in the vat and also of the whey will be made, as well as frequent tests of individual patrons' milk in factories where the composite test is not being carried on.

The object of this work is to find out something about the quality of the milk supplied to our cheese factories, with a view to showing how it varies in fat content. The data thus obtained would afford proof of the value of paying for milk for cheesemaking, with regard to the percentage of butter-fat. The work done in former years by the Dairy Branch at Ottawa, and by the Dairy Department of the Ontario Agricultural College, clearly demonstrates that the more fat there is in normal milk the more cheese it will make. Nothing will be done in the way of making cheese from milk with different percentages of fat this season. There is sufficient reliable data on that subject already. If the results of this work shows a wide variation in the fat content of milk supplied by different patrons they should prove effective in convincing factorymen that the "pooling" system is not a fair way of paying for milk supplied for cheesemaking.

The instructors report considerable improvement in the buildings and equipment of many of the factories visited this spring. The season is backward. Many factories, especially East, that formerly opened on May 1st, will not begin making this year till May 10th. The make of cheese in those now running is about one-third less than at this time last season.

"CHRONICLE."

A QUEBEC COUNTY HEARD FROM.

Editor "The Farmer's Advocate":

I was much interested in the article of April 9th in "The Farmer's Advocate," by J. H. Burns. It contained, to my mind, many good, along with some surprising statements. We also noted, with mingled pity and amusement, the clubbing he received in your issue of April 30th, at the hands of "A Farmer's Wife," from his own Province; also from "A Nova Scotia Farmer's Wife." The latter tells of her great surprise, judging from his communication, that Nova Scotia farmers are so far in advance of those of Ontario, when she had always supposed the opposite. Though just now residing in a far different locality of the Dominion, I think my amazement equals hers, to find the average farmers here in Stanstead Co., Prov. of Quebec, far more progressive than those of the Province from which Mr. Burns wrote his article; when all my life previously I had in some way imbibed the idea that farms, farmers, and conditions generally, were far superior in Ontario!

But if the picture he has presented to our view is truly drawn, the reverse is true. I have lived for periods varying from one to several years each in the States of Minnesota, Michigan, Colorado, Southern California and Virginia; also lived for some little time in the City of Washington, D.C., which is noted, not only as the capital of the United States, but also as being one of the most cleanly-kept, beautiful and unique cities of the world, and as having many other attractions possessed by no other city on this continent.

I cannot pass by without mentioning with high praise the semi-tropical beauties and advantages of Southern California; also the pure, invigorating air of sunny Colorado; still, I can truly say, after all my pleasant experience in and admiration of these "more favored climes," and sojourn in the grand city where the laws of a great nation are made, I am now actually enjoying a prolonged visit to my old birthplace and early home in this part of the Province of Quebec, Canada.

Of course, I know most about the homes of my two farmer brothers. With one I am making my home at present; the other lives within the limits of a pleasant few minutes' ride. Both have as fine and fully-equipped bath-rooms as those mostly found in modern city homes, which are used any time any member of the family may desire "the luxury of a bath" the year round, as they can always be heated in a few moments, with the good modern furnaces with which both their homes are provided. Right here will tell J. H. Burns that both these furnaces are connected with ventilating pipes, so that pure, fresh air is constantly introduced into their houses. Both have hot and cold water running into their bath-rooms and kitchen sinks.

Being their sister, of course I am proud to say that they believe the women who help compose their families should have their work made as light as possible, by use of modern improvements and inventions, as the men have theirs by improved methods, modern barns, implements and farming machinery. Each of these brothers has good large barns; that belonging to the one with whom I am staying is considerably more modern, because more recently built. It is clean, light, splendidly ventilated, has both hot and cold water pipes coming into it, with individual water tanks for the use of the animals kept therein; in short, is a modern barn in every respect. They also have shade and ornamental trees, flowers and shrubs, good orchards, and as finely-kept lawns as fastidious residents of city or village; and last, but not least, fine

strawberry beds, as well as other small fruits. So that themselves and families, though far from the great markets where these luxuries are shipped daily, can enjoy them in a delicious freshness, never known to the city consumer—right from the luscious beds, which beautify the rich soil; fresh from the pure sweet air and sunshine to the table—minus all the jolting, jamming and close confinement in musty boxes during miles of travel by rail or wagon; not picked half green, and no disappointment by finding half or two-thirds of the berries spoiled down in the boxes, but all sound, sweet and luscious, with a taste which no city dweller who has not had the privilege of eating them freshly picked in the country can imagine! These brothers never seem to consider any necessary work on their farms drudgery. Endeavoring to have surroundings indoors and out as pleasant as their means will permit, they love the pure air, roominess, and liberty of country life, and enjoy the strength and freedom from sickness resulting.

For over twelve years now they have had "telephones" in their homes, which they realize they can't "afford" to be without, considering them a modern necessity, as well as luxury.

The brother in whose home I am writing this takes two agricultural papers (his favorite, "The Farmer's Advocate," of course, which he would not do without); also, beside these, one devoted entirely to fruit culture, two city dailies, one local, and two other weekly papers, containing choice reading matter. Am quite sure my elder brother takes nearly, if not quite, as many.

I cannot see wherein my farmer brothers, here in this county, in this Province of Quebec, lack many of the conveniences of city homes; while the fresh, sweet cream, milk and butter (yes, buttermilk also), as well as fine fresh fruit and vegetables, are far superior to any a "city cousin" can procure. As for getting plenty of pure, sweet air into their homes, the possi-

the best of it, and enjoy their unexcelled summers with a zest never imagined by those who have always lived where severe cold or snow is never known.

Not all have bath-tubs yet, even here, but as far as my knowledge goes, those now without them intend to put them in as soon as possible; and in the meantime are too cleanly and sensible to go without bathing on that account, knowing that any one can be made very clean by the judicious use of soap, scrub cloth (or brush) and anywhere from a washbowl to a washtub full of good, pure soft water, which abounds here.

Of course there always have been, and probably always will be, some, wherever one may go, who, if they believe the old adage, that "cleanliness is next to godliness," show by their works that they have no desire for a close proximity; but they are the exception in these parts. "A FARMER'S SISTER.

Stanstead Co., Que.

THE AUTOMOBILE AS A FARMER'S VEHICLE.

Editor "The Farmer's Advocate":

I noticed in last week's issue (April 30th) an article entitled "Banish the Automobile," by E. R. Y., in which he takes exception to some remarks made by me in your issue of April 2nd, on "The Automobile and Denatured Alcohol." He has not, for some reason, given his full name, and not even his whereabouts, but I would infer from the tone of his letter he must be located somewhere in the wilds of Northern Ontario, where autos are conspicuous by their absence.

If he would take the trouble to look carefully over my article, he would possibly discover that there is not so much inconsistency in what I said as he appears to think or imagine. I made use of the following language: "In the past we have been accustomed to look upon those owning automobiles as being among the wealthy, etc." He seems to have inferred that such is still the case; while it is not here in the Niagara District, at all events, where we are up-to-date, as several of my neighbor brother farmers have already run about autos, and others are contemplating investing in the near future. I think he must come to the conclusion that I have not drawn unreasonably on my imagination, and my remarks are quite within bounds. The autos are here to stay, and when we consider the use being made of them already at many places, it would be folly to contemplate for a moment to banish them, as he would have, from any of our highways on any day. If we wish to be in line with present-day advancement, we may as well adapt ourselves to what is destined to remain with us, and be a useful servant. The auto motors are being used by farmers in pumping water and running farm machinery, so that, as I stated previously, the autos will be among the farmer's best friends. When a horseless buggy can be purchased, even as they now can, for about \$400, and ordinary runabouts so reasonably (and they will in the near future be much cheaper), it does not require very much knowledge to understand that, everything considered, the auto is as cheap as, or cheaper, than the horse for the road. In many European countries where they have (as we should have, and undoubtedly will ere long have in Canada) free denatured alcohol, the cost of fuel or gas to run an auto and farm machinery is a mere bagatelle. I think the farmers of Canada will not be long in asserting their right in this respect, and then my critic will have no complaint to make of "an evil-smelling motor car."

In many instances that noble animal the horse, man's best and most useful friend, receives his worst treatment on the road. This especially applies to the farmer's horses, that are not so accustomed and as well adapted to the road, as few farmers can afford to keep horses only for driving. If the autos were used to do most of that work, the horses would still have plenty of work on the farm, and the wealthy city people who can afford it will have their horses and carriages.

While much complaint has been made of the injury done to our roads by autos, I firmly believe that the horses are responsible for much more damage to our roads. Our stone as well as earth roads are cut up and greatly injured by the horses' shoe calks, which accounts largely for the dust nuisance created by the autos.

As soon as my present road vehicles have served their day and generation (which is not far distant), I hope to be able to join the great army of motorists.

Lincoln County.

W. B. RITTENHOUSE.

CRUELTY IN SHIPPING CATTLE.

Police Magistrate R. E. Kingsford, of Toronto, has imposed a fine of \$100 and costs upon the Grand Trunk Railway, the maximum under the code, for cruelty to animals. The charge was laid by P. C. Jas. Tinsley, officer on duty at the cattle market. Twenty-three head of cattle were shipped in a sealed car from Warton, Ont., by R. J. Stead, dealer, to Toronto, being 39 hours and 40 minutes in transit without being fed, watered or rested, reaching Toronto in a shocking condition through thirst, and their struggles to eat the car bedding. Mr. Stead admitted signing a contract in which he undertook to feed and water the cattle en route, but he said he had been shipping cattle for thirteen years, and only looked on that clause of the contract as "a matter of form."

In giving judgment, the magistrate said in part: "This contract affects the civil relationship of the company and shipper. It cannot displace the liability of the railway company under the code. The cattle were



Handsome Public School, New Liskeard, Ont.
Built of cement-concrete blocks.

bilities and probabilities are far beyond the "city cousin's" crowded quarters. It must be only the fault of the inmates if they do not, as air is all around them, "free as air" and uncontaminated! All they have to do is open doors and windows and "let it in." A great many around us have much the same modern conveniences as my brothers—some more, some less. Very nearly all have their homes heated by furnace hereabout, and with few exceptions, telephones, as most consider them a "paying investment" in saving valuable time.

As we all know, previous to the installation of these "labor savers," if the doctor was wanted, information desired, errand to be done, or message to be sent, often the tired farmer, or some of his family, must harness an over-worked horse, and drive several miles. With these never-tiring and never-grumbling helps, a message can be sent and reply received in less time than required to harness the horse previously. In addition to these advantages might be mentioned the fund of neighborhood news and gossip acquired, and the saving of eyes and brain, from wading through the columns of local newspapers, by simply placing the ear for a little while to the "receiver," when the instrument lustily rings out some neighbor's call. In this, certainly they have the advantage of "city cousins" again, who live where lines are "private," or it is considered a breach of honor to listen!

Am sorry, Mr. Burns, that you cannot have the satisfaction of living a little while with "progressive" farmers (hadn't you better try this county and Province for a short time?), for such I consider my brothers and many others in this locality. They read a good deal, think a good deal, and strive to put the best of the good things they think and read into practice, in their homes and on their farms; thus stripping farm life of most of its "bugbears," and making it here in this region an independent, healthy, happy life—at least, about as much so as can be on this old earth in its present state. The one thing lacking here, as well as in all portions of Canada, is rural free delivery of mail, which "Uncle Sam" gives his farmers.

Of course, the long cold winters and few weeks of bad travelling in the spring are somewhat of a dampener; but the people here seem to get used to it, make

in the company's cars. The railway company have the power, under subsection 4 of section 544, of feeding and watering the cattle if the owner makes default, and they can charge the owner with the expense of the necessary care. There is no reason, therefore, why, in this case, the railway company should not have fed and watered their cattle, even if the owner were in fault.

"The case seems to me to require a fine which will be a deterrent."

"The code seems to allow a period of 28 hours during which the cattle can be without care, and not until that time elapses does any liability arise under the code. That is apparently the law. But 28 hours appears to be much too long a time to allow. Perhaps there may be some explanation why 28 hours are named. One would think 8 hours were enough to go without food or water, but the code says 28 hours. As I have only to carry out the law as I find it, all I can do is to call attention to the state of the legislation."

"NOT THE MEN FOR GALWAY."

Editor "The Farmer's Advocate":

I was very much interested and pleased with your editorial in the 16th of April issue of "The Farmer's Advocate," on the automobile question, but cannot agree with you when you say there should be a portion of the week when it should be safe to drive on the rural roads. Why should we be kept off the roads a portion of the week? Who has a right to the use of the road if it is not the people who made them, cleared the timber off them, dug out the stumps, graded and drained and gravelled them, and why should we resign our right to travel them in peace and safety every day in the week, and to whom? I understand there were a little over 1,600 permits granted to autoists last year. Of that number, about 1,000 were to American, and the other 600 would likely be to rich men in the cities, not one of whom contributed one cent or one hour's labor to the making of these roads. The talk of regulating the traffic is all bosh; it can not be regulated. Nine out of ten horses will be frightened by the smell of the thing, if nothing else; and as to horses getting used to them, that might hold good if a man kept the same horse for all time. You know, the majority of farmers are raising horses for sale, as well as their own use. It is usual to break the young horses, and when used two or three years, to sell them, and replace with another young one. These young horses never see an automobile until they are taken on the road. So it's a continual repetition of the scare and runaway, and the whole farming community is to put up with this, because a few rich Americans, and a few rich men in our own cities, want to enjoy the sport of running down and frightening the country yokel and his wife off the road, and I think, Mr. Editor, these same country yokels well deserve to be run off the roads if they don't take the matter in hand now the local elections are about coming off. Let them attend the nominating meeting. Let them try to forget for a few weeks that they call themselves Grits and Tories. Let them nominate men, and vote for them, who will go to Toronto and do just as the Legislature of Prince Edward Island has done; that is, prohibit the running of automobiles on the roads altogether.

The Weekly Sun said the Grange put up a valiant fight before the Legislative Committee. They asked for one day and a half in the week (Saturday and part of Sunday), when they and their wives might travel the roads in safety, one day and a half. O, the poor bodies! Who did they profess to represent? Was it the auto men? It certainly was not the farmers, for I would stake my all that if a vote was taken to-morrow, ninety-five per cent. of the people would vote to abolish them altogether. It was plainly to be seen, the dominating spirit of the old master, Jabel Robinson, had left the scene. Another thing I might say, the growing feeling among the people, and their willingness to tax themselves to make the main road first-class, has largely disappeared, and what else could be expected, when the roadmakers have to travel the back roads themselves? It is not likely they will do anything to make a road they seldom travel. The idea advanced that the farmers will soon be using the automobile is not at all likely. One reason is, they could only use them part of the year. Another is, they can't afford it; it takes them all they can do to pay the high rates imposed in the shape of high tariff, made in favor of these people who are investing in automobiles and such like; the money taken from the people in the shape of subsidies, and the result of protective duties. So there is not much chance for us to get and run an auto if we wished. When we have to find the where-withal for the other fellow to run one, we can't possibly afford to run two. I think if the Opposition in the local Legislature had taken up this question, and made it the main plank in their platform, it would have put them much nearer the goal at which they are aiming than all their heroics on the three-fifths clause and the power question, but they evidently are not the men for Galway.

R. J. HINE.

Elgin Co., Ont.

A GREAT BOOK OF WORDS.

No farm home is complete in these days without a good dictionary of the English language. It is needed nearly every day. Especially useful for the young folks who attend school. A copy, postpaid, of the Twentieth Century Dictionary may be obtained, post free, by sending us two new subscribers to "The Farmer's Advocate," accompanied by \$3.00.

AN ANSWER TO CAPTAIN KIMMINS.

Editor "The Farmer's Advocate":

It is well that our people should be aroused by this most vital question, military drill in schools. Captain A. E. Kimmins has written what to most of us appears to be the letter of a level-headed man; still, I cannot agree with him. However (unless we arrive at conscription), this is a free country, and we are all entitled to our own opinions.

It was the editorial in "The Farmer's Advocate" of January 2nd, 1908, that prompted me to write my first article, from which has arisen this discussion. If you will allow me, I will quote a paragraph from that editorial, which runs as follows:

"In North America, the surest way to bring on war is to prepare for it by raising the military spirit; the surest way to avoid war is to turn the people's thoughts and aims towards the arts and triumphs of peace."

It is claimed that if boys are trained in the arts of war that it will cure them of soldiering. In that case, if a boy loves farming, will a course at an agricultural college "cure" his desire for a rural life?

The editorial says that this new phase of militarism is a "sorry exhibition of the Gospel of Peace." We know that military training is in direct opposition to the teachings of the Prince of Peace, but like many others, perhaps the Captain thinks that in "the present state of society" Christianity is impracticable in a Christian land?

Captain Kimmins says that history repeats itself. This is true to a certain degree, yet no two events are exactly alike. It is to be hoped that the history of Pennsylvania, under the governorship of William Penn, will repeat itself. It is an old story, but it will bear repeating, especially if contrasted with the history of Virginia.

It will be remembered that Charles II. owed William Penn £16,000. After waiting several years for payment, William suggested to the "Merry Monarch" that he should be given a tract of land in America. The king readily granted the request, but Penn was determined to treat the natives with absolute justice, and not being satisfied with the title from Charles, he bought the land over again from the Indians. In 1682, Penn, fearless and unarmed, met the red chiefs near Philadelphia, where the great treaty was interpreted to the natives, in which Penn said: "We are met on the broad pathway of good faith and good-will, so that no advantage is to be taken on either side, but all to be openness, brotherhood and love." The Indians then promised "to live in love with the English as long as the sun and moon shall last." It was not until forty years after this treaty that a white man killed an Indian, and it was seventy-two years after before an Indian killed a white man, but William Penn was then dead. If he and all his colonists could keep the peace totally unarmed in a territory almost as large as England among "savages," surely it is not impossible for this history to be repeated in a Christian land! While Pennsylvania prospered in building and commerce, Virginia, under Captain Smith, was waging bloody wars, which time after time almost exterminated the colony.

No, we are not yet armed to the teeth, but unless the present attitude of indifference and militarism is suppressed, we shall be in time.

Captain Kimmins refers to the battles of Lundy's Lane and Queenston Heights, but who was it before the war of 1812-1815 that provoked the Americans by overhauling their ships for British deserters? It is to be hoped that the history of H. M. S. Leopard, with its high-handed action in capturing the Chesapeake, will not be repeated. However, as the British Government apologized immediately, we will let the matter drop. My point is that these disputes could be settled by arbitration. We have arrived at a time when English-speaking nations no longer settle private troubles by duel, and the time is coming when international disputes will also be settled by courts of law, which will be much less costly and more satisfactory than sacrificing our young men and our homes.

General Sheridan said, "War will eliminate itself. By the next centennial arbitration will rule the world." Napoleon said, "The more I study the world, the more I am convinced of the inability of brute force to create anything durable."

The Captain suggests a possible invasion. Does he fear the "Yellow Peril"? A great peril exists in the yellow press. We know that China and Japan are making gigantic improvements in their armies. With the latest-patterned armaments they would be no mean foe, and, should they contemplate an invasion of our country in return for the insults English-speaking people have showered upon them, we would (even if every man in Canada were a trained soldier) stand a poor chance against their overwhelming numbers. Therefore, we had better turn our attention a little more to the peace question.

Longfellow says:—

"Were half the wealth bestowed on camps and courts
Given to redeem the human mind from error,
There were no need for arsenals nor forts."

What are we doing in the schools (and churches) to "redeem the human mind from error"? How much money do we in Canada spend in promoting peace?

Two countries in South America have led off the world in an object lesson of peace and arbitration. I refer to the Republics of Chili and Argentina. It would be well for us to follow their example, and put an end to military drill in schools. After seventy years of

quarreling over the boundary line, Chili and Argentina decided to fight it out. They increased their armaments, ordered European battleships of the latest pattern, and spent enormous sums of money, until the people were weighed down with taxes. Just as the war cloud was about to break, the peace party succeeded in inducing both Governments to submit the controversy to King Edward, whose decision was accepted and a war averted.

The result of this treaty was that the land forces were reduced, the heavy ordnance taken off the warships, several of which were turned over to the commercial fleets. With the money saved by this disarmament, good roads were constructed. Chili turned an arsenal into a manual-training school, and improved her harbors, and the Trans-Andean Railway united the two nations by its completion. More than this, a statue of the Christ was cast from cannon taken from the fortress at Buenos Ayres. In 1904 this statue was erected on the boundary line on the lofty Andes, and the dedication was attended by a friendly gathering of representatives from both nations. On the tablet at the base of the statue is this inscription:—

"Sooner shall these mountains crumble into dust than Argentinians and Chilians break the peace to which they have pledged themselves at the feet of Christ the Redeemer."

If we in Canada do not erect such monuments on our coasts and boundaries, we can at least work for the peace pledges between other nations, our best means of defence, thus preventing the feared invasions.

King's Co., N. S.

EUNICE WATTS.

OUR NATIONAL DEFENCES.

Editor "The Farmer's Advocate":

It is the boast of our "War Department" that it has raised the amount for our national military defence equipment at the rate of nearly one million dollars a year, or almost 1,000 per cent. during the last ten years.

Now, I look upon this condition of affairs not with pride, but with dread alarm. Canada, the youngest of all the nations; born anew, in this enlightened Christian twentieth century; in this present world-wide peace movement, to begin such strenuous exertions of militarism is to sell our noble heritage for a mess of pottage. It is a fatal misnomer to call and to think these works, built of rotting wood and crumbling clay—these guns, with these "red-coats" behind them—"Canada's Defences."

Red coats are well chosen for our soldiery. They give a brave appearance to many a coward—for they often fail to prove themselves brave in the test who show such brazen front in times of peace. The militia are made up largely of those who have shirked their social and financial responsibilities, if they had any, in search of a soft job. It takes greater courage to meet and master the multiplicity of home duties than to shoulder a gun and go off to the drill, and even to march to battle and die in the excitement of carnage. He is the true hero who stands, calm and serene, uncomplaining and unflinching, at the post where God has stationed him, though he may live in obscurity, and die without having heard the plaudits of man. The truly brave seldom have their fame trumpeted over the earth. Canada's impregnable defences are her peace-loving, God-fearing, honest and industrious army of toilers. Work creates commerce, and commerce is rapidly welding the adamant chain of international peace, binding indissolubly all nations of the earth into one universal and everlasting brotherhood.

Then why all these preparations for war? Your ramparts and your red-coats are menaces rather to our national peace, both externally and internally. No nation would molest Canada unarmed, but Canada armed would provoke quarrels and invite attack, and not the law of right but the law of might would prevail.

One instance internally. See how the country is disturbed by the Moir tragedy. We do not acquit Moir, or palliate his awful crime. But is he alone to blame? The nation taught him the art of war, put into his hands the gun, and said, "Go, kill." The nation most likely taught him to drink—at least it sold him drink that crazed his mind. The result—he shot Sergeant Lloyd. Was not the nation as much the murderer of Lloyd as was Moir? Moir escaped, but the "War Department" down at Ottawa is virtually, it seems to me, an equal accomplice with Moir in the crime. If you want to hang something, go hang that. And I believe it is time we did. Let us change our tactics. Let us do away with the "Minister of Militia"—I mean with the Department—and create a new department, say a "Minister of Peace." Thus, instead of having a man who considers it his work and his duty to create disturbances and make enemies of nations who would otherwise be our friends, we would have a man who would be ever watchful for the country's highest welfare; would earnestly strive after, promote and insure her peace abroad, and her prosperity at home.

If we only knew it, we are a nation of peace-lovers, and if the question of armament were put to a plebiscite there would never be another cent of our money devoted towards the maintenance of a militia, a navy, the so-called defences, or for any warlike or military display. The many armories proposed for building would never lift their useless, gloomy and fatal walls, to be so many festering plague-spots of debauchery and crime, desecrating this "fair Canada of ours." The eight million dollars, which has made us wonder why

our taxes are so high, proposed for militarism the coming year, could be turned into many channels of usefulness, and devoted to the pursuits of peace and happiness, thus returning to us with usury.

Still, if we will be heathens, by upholding war and militarism, let us call ourselves heathens, and not be hypocrites also by posing as Christians. A Christian is a follower of Christ. Christ said, "Love one another; love your enemies." He said to the fighting spirit in Peter, "Put up thy sword." Did Christ not make it plain what a Christian is? Did He not make it plain what a Christian's duty is in this respect? Fellow citizens, we may deceive ourselves, but we cannot deceive Christ; we cannot deceive God. We are following neither the spirit of the New Testament, nor yet the higher enlightenment of the Old, which commands, "Thou shalt not kill." The creed of revenge and the practice of war are the creed and practice of barbarism.

I still have faith that Canada will awaken and arise to her rightful and exalted destiny; but it will not be at the summons of the god of war, spreading terror abroad, and commanding obedience at home, at the mouth of the cannon and the pistol; but she will rise to her glorious destiny through the power of righteousness, under the invincible Captainship of the Prince of Peace.

Call your garrisons, weary with the menial round of petty monotony, from out the stuffy, low-roofed barracks, and send them to the freedom of the Western prairies, where the golden grain will soon wave ripe for reaping. Bid them doff their red coats, and don the miner's garb, and send them to delve for the useful ores. Train them no longer in the fiendish trade of killing, and in the cruel art of spreading woe and misery among mankind, but instruct them in some helpful trade that will add to man's blessings. Blot out from their minds the devil's obsolete gospel of hatred, and instil in its stead Christ's gospel of love, and His creed that man's highest duty is to serve his fellow man.

If Canada would pursue this course, she could not fail of her high destiny; her people would indeed be free, prosperous and happy; and she would become the light and the emulation of all armament Europe, and of every war-cursed nation of the earth.

Middlesex Co., Ont.

EDGAR M. ZAVITZ.

HUNTINGDON, QUE., NOTES.

Happy the man who tills his field,
Content with rustic labor;
Earth does to him her fulness yield,
Hap what may to his neighbor.
Well days, sound nights, oh, can there be
A life more rational and free?

This is the time when such lines can be appreciated by the tiller of the soil, as from day to day he pursues his vocation amid the fragrance sent forth by bud and blossom, especially as he drills in the seed, hopeful of reaping a bountiful return a few months hence. Rising with the sun, making best use of the bright days, tilling the soil with intelligent purpose, this farmer is sure to reap the reward of his labor.

The sugar season was the best for many years, a larger number of trees were tapped, therefore a larger quantity of maple product of superior quality was realized, and much of it was marketed at a profitable price. Although the demand was not quite as brisk as last year, 80c. to 85c. per gallon, in tins, was the prevailing figure. Sugar sold at from 8c. to 10c. per lb. Notwithstanding the "Foods Adulteration Act," much adulterated maple syrup and sugar is manufactured by city firms and foisted on the public as the pure article at a lesser price. This has had its effect in lessening the demand for the pure article.

The warm, genial days, about the 25th to 27th of April, so dried up the soil on our high lands that we got sowing, but it soon came cold, wet and backward, until the early days of May, when it has cleared up, and seeding had again become general, and, with good weather, about two weeks will see all the seed sown. Much new seeding has to be resown, as owing to the drought last summer a great part of it is killed out. Some that survived is looking rather thin. On this, with some oats sown, and a fresh seeding worked in lightly, a good crop of forage may be raised. On the high and gravelly lands the grass is such as to sustain young stock, and many herds have been turned out to eke out an existence until a more liberal supply may be had, which we trust will not be long, as nearly every farmer is going to be scarce of feed before he gets his cows to grass.

Most of the creameries and cheeseries have commenced operations with a smaller milk flow, viz., 15 per cent., below former years. The amount of milk and

cream going to Montreal and the condensary here, is much larger than usual. Milch cows are still high in price, as high as \$75 is being paid for first-class cows. Horses have been going a little slower, especially carriage horses, which are usually picked up by men of position at good prices, but they are more careful buyers than usual. Drafters are bringing good prices, and a large number have been taken.

Fewer hogs have been wintered, and fewer brood sows bred, but young pigs have done well, there being a small mortality as compared with last year. Stock has not been wintered as well as when feed has been more plentiful, and it will take a month's good grass to put them in thrifty condition.

While we are not pessimistic of the situation, yet we advise farmers to go slow until they see what the season will bring by way of good pasturage and bountiful crops.

W. F. S.

U. S. CROP PROSPECTS.

The Crop-reporting Board of the Bureau of Statistics of the United States Department of Agriculture finds, from the reports of correspondents and agents of the Bureau, that the area of winter wheat standing on May 1st to be harvested was about 29,751,000 acres, which is 4.2 per cent., or 1,318,000 acres, less than the area reported as sown last fall, and 5.8 per cent., or 1,619,000 acres, more than the area of winter wheat harvested last year. The average condition of the growing winter wheat on May 1st was 89.0 per cent. of a normal, as compared with 91.3 on April 1st, 82.9 per cent. on May 1st, 1907, and 85.8 per cent. the mean of the May 1st averages of the past ten years.

The average condition of the rye crop on May 1st was 90.3 per cent. of a normal, as compared with 89.1 on April 1st, 88.0 on May 1st, 1907, and 89.5, the mean of the May 1st averages of the past ten years.

The average condition of meadow (hay) lands on May 1st was 93.5 per cent. of a normal, as compared with 83.6 on May 1st, 1907, and 89.5, the mean of the averages on May 1st of the past ten years.

The average condition of pastures on May 1st was 92.6 per cent. of a normal, as compared with 79.6 on May 1st, 1907, and 87.8 the mean of the averages on May 1st of the past ten years.

TRADE TOPICS.

CEMENT BUILDING BLOCKS are rapidly gaining favor as an economical and enduring building material. The Dunn hollow-concrete-block machine, manufactured by the James Stewart Co., Woodstock, Ont., and advertised in this paper, fills the bill for making cement blocks on the ground for a single building or a regular business. Parties interested will do well to write this company for prices and particulars.

METAL SHINGLES.—In regard to the lasting qualities of the "Eastlake" patent shingles, manufactured by the Metallic Roofing Co., of Canada, Madden Bros., tinsmiths and hardware dealers, of Simcoe, Ont., write: "We have handled your 'Eastlake' shingles for nearly a quarter of a century. They have been on the Court House, Free Library, and other public buildings in this town for eighteen years. We have used very large quantities during the past twenty-five years, and they have always given first-class satisfaction, and have never required any repairs." The manufacturers advise us that these shingles retail at from \$2.85 to \$5.25 per square, depending upon weight and material used.

WHERE TO OBTAIN NITRATE OF SODA.—The fertilizer trade will never be placed upon a thoroughly satisfactory basis in Canada until firms in the business undertake to promote the sale of ingredients for home mixing. While there are one or more companies in Canada who supply these on request; as a rule they prefer to dispose of their own brands of ready-mixed fertilizers at a considerable advance over the cost of the same materials in unmixed form. There are three elements that enter into the composition of all complete fertilizers, viz., nitrogen, phosphoric acid and potash. Nitrogen is commonly obtained in the form of a high-grade and very soluble product called nitrate of soda. For gardeners and fruit-growers particularly, nitrate of soda is often a very profitable investment. We are glad to announce that this is now offered through our advertising columns, put up in original bags, by the Nitrate Agencies Co., 64 Stone St., New York, U. S. A., who undertake to fill promptly orders for all quantities.

GOSSIP.

Mr. A. P. Blue, Eustis, Que ec, advertises for sale registered Ayrshires, all ages, including prizewinners and imported animals. Seventy-five head to choose from. See the advertisement, and write for price and particulars, or give him a call.

Volume 2 of the herdbook for the "Lincolnshire Curly-coated" breed of swine has, through the courtesy of the Secretary, Mr. Charles Edward Williams, Thornhayes, Sleaford, England, been received at this office. It is a well-printed volume, containing pedigrees of boars numbering 349 to 637, and sows, 192 to 2,066, and contains several excellent illustrations of animals of this breed.

Scott Bros., Highgate, Ont., write: "Since our last report we have sold the following Shorthorns: To Mr. Robert Moorhouse, Cairo, Ont., Dairy Maid #81311, seven months old, sired by Lord Lieutenant, dam Imp. Lady Steel, a winner at St. Louis in the dairy test; to James Randall, Highgate, one ten-months-old bull calf, sired by Lord Lieutenant (imp.). We have exchanged with Mr. L. K. Weber, of Hawkesville, Ont., our imported bull, Lord Lieutenant, for Good Morning (imp.), and we are now breeding the heifers from Lord Lieutenant to Good Morning. The yearlings and two-year-olds advertised are an exceptionally good lot, and will be priced right. Breed right, feed right, and advertise in 'The Farmer's Advocate,' and you are sure to sell at fair prices."

FAIRVIEW SHROPSHIRE AND SHORTHORN.

For many years, with an international reputation of superior excellence, the Fairview flock of Shropshires, property of J. & D. J. Campbell, Woodville, Ont., this year really appear to excel those of any previous year. The fifteen shearing rams and the thirty shearing ewes, nearly all the get of Beldoyr Sirdar (imp.) and Harding's Best (imp.), the grand champions at St. Louis World's Fair and the Chicago International, are certainly a very superior lot, among them being very many high-class show animals, a credit to their famous sire, and their no less superior dams. This

season's crop of lambs, of which there are about sixty, are the equal, if not quite a little superior, to any ever raised in this noted Shropshire flock, and are the get of the above-named champions. Many orders are already booked for fall delivery, which is a wise move, as the early selection ensures a show-flock header.

Quietly and steadily the Campbells have been building up a superior herd of Shorthorn cattle. Strathallans are in the majority, and a rare good lot they are. Cows and heifers there are in the herd good enough to go in the ring among the best, and as proof that they are exceptionally good milkers, we have only to see their well-developed udders, and the thick, well-fleshed calves fed by their dams, among which are three September bulls, and one heifer, as near ideals of perfection as any we have seen for many a day, sired by the Brawith Bud stock bull, Golden Count, a son of that great sire of show stuff, Prince Gloster, and among the very best bulls in Canada, he is a marvel of thickness and goodly proportions, and a sire of a very high order indeed. Recently, some new blood has been infused in the herd by the purchase of Mysie Maid, a two-year-old Mysie-bred daughter of the great bull, Joy of Morning (imp.); she has a choice bull calf at foot, got by Imp. Gold Mine. Another recent purchase is a roan yearling, by Imp. Gold Mine, and of the noted Scotch Thistle tribe. These were purchased at the late sale of Mr. E. A. Gardiner, and considered by many as the cream of the sale. The Scotch Thistle heifer is out of a daughter of the Missie bull, Luxury, for years chief stock bull at the head of the herd of His Majesty King Edward. On such an excellent foundation, both as individuals and from the breeder's standpoint, the Fairview Shorthorn herd promises to become as noted as the Fairview flock of Shropshires.

Mr. Hugh Thomson, St. Mary's, Ont., writes: "I have recently sold Shorthorns as follows: To Mr. Harry Grayson, Granthurst, a fine yearling bull, by Lord Wimple, dam Miss Cloud, by Brawith King, a pure Crickshank bull, bred by Hon. John Dryden; to Messrs. John Watt & Son, Salem, Ont., the very fine yearling bull, Queenston Archer 3rd, by Queenston Comet #22080, dam Archer 2nd, by Duke of Foulton. Mr. Matthew Hunter was second with Bertha IV., by the same sire."

ica, by Brave Archer #70018, bred by Wm. Duthie. He will certainly make a grand bull, as size and quality is combined with the richest breeding. To Capt. Thos. E. Robson, London, a very nice Claret cow and heifer calf, and the grand yearling heifer, Belle of the Morning, sired by the noted bull, Springhurst, dam Joy Bell, by Joy of the Morning, second dam by Scottish Archer, third dam by Field Marshal. I did not care to part with her, as I considered her one of the best heifers in the Dominion, but the genial Captain's argument prevailed, and he became the fortunate possessor."

Intending purchasers of Aberdeen-Angus cattle will do well to write for particulars, or see the choice lot of ten young bulls offered by Messrs. George Davis & Sons, of Alton, Peel County, Ont., on the Orangeville branch of the C. P. R., whose advertisement may be looked for in our next issue.

AYRSHIRES AT KILMARNOCK.

At the Kilmarnock (Scotland) Spring Show a strong showing of Ayrshires was made. The championship bull was Spicy Sam, by Not Likely, shown by Mr. James Howie, and the reserve was the first-prize yearling, White Prince, by White Cockade, shown by Mr. R. Cunningham. The champion of the Show was the first-prize three-year-old cow, in milk, Lady Bute, by Flora's Chief, shown by Mrs. McAlister, Meikle Kilmory. The first-prize aged cow, in calf, was Mr. Chas. Douglas McLean H., bred by Mr. Andrew Harvey, and sired by Captain of Burnhouses; she was the reserve champion of the Show. In the aged milk class, first ticket was taken by Burnhouses' Gipsy X., sired by Flora's Chief, and shown by Mr. Wm. Howie. The Derby for three-year-olds was won by Miss Hunter for Polly, home-bred, by Duke of Foulton. Mr. Matthew Hunter was second with Bertha IV., by the same sire.

Little Fred was visiting his grandmother in the country and was watching the turkeys. "Look, grandmother," he said, "the old gobbler has had his fun up for half an hour and his face is as

THE Savings of Years

Should never be risked in uncertain investments. Much better to be **SURE** of your money and reasonable interest, than to risk loss of both through the unsafe depository or any get-rich-quick scheme.

THE BANK OF TORONTO in its Savings Department offers a perfectly safe depository for money. Its large resources, its conservative management, and experience of over fifty years, ensures all depositors and other customers an unexcelled banking service.

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HEAD OFFICE, TORONTO, CAN.

MARKETS.

TORONTO.

LIVE STOCK.

Receipts of live stock were not large last week, amounting, all told, to 211 carloads, composed of 2,842 cattle, 3,699 hogs, 390 sheep, 1,576 calves, 175 horses. The bulk of the cattle offered at both markets was not good. There is a dearth of well-finished cattle, not enough to supply the demand. Trade was good all week, especially for the best grades. Prices were stronger at the end of the week than at the commencement.

Cattle receipts at West Toronto, on Monday, May 11th, 1,110; quality fairly good; trade brisk; prices firmer. Exporters, \$5.75 to \$6.12; export bulls, \$4.25 to \$5; picked butchers', \$5.70 to \$5.90; loads of good, \$5.50 to \$5.75; medium, \$5.25 to \$5.50; common, \$4.75 to \$5; cows, \$3.50 to \$4.75; milkers, \$4 to \$6; calves, \$3.50 to \$5 per cwt. Sheep, \$5 to \$6.50; yearling lambs, \$6.50 to \$7.75 per cwt.; spring lambs, \$4 to \$6.50 per cwt.; fed and watered at market; \$5.75 to \$5.85, f. o. b. cars in country.

Exporters.—Prices last week ranged from \$5.50 to \$6 for steers, and \$4 to \$5 per cwt. for bulls.

Butchers.—Prime picked lots of butchers' sold as high as the best exporters, at \$5.75 to \$6; loads of good at \$5.50 to \$5.75; medium, \$5.25 to \$5.50; common, \$4.75 to \$5.15; good cows, \$4.50 to \$4.75; common cows, \$3.75 to \$4.25; canners and rough cows, \$2 to \$3.25.

Stockers and Feeders.—Stockers and feeders were scarce, not enough to supply the demand, and many farmers had to go without a supply. Messrs. Murby bought about 300 during the week at the following prices: Good steers, 1,000 to 1,100 lbs. each, at \$4.75 to \$5 per cwt.; good steers, 900 to 1,000 lbs. each, at \$4.25 to \$4.75; good steers, 800 to 900 lbs. each, at \$3.90 to \$4.25; good steers, 600 to 900 lbs. each, at \$3.25 to \$5.90; light stockers, 400 to 600 lbs. each, at \$3 to \$3.25.

Milkers and Springers.—Receipts of milkers and forward springers were not large, and the market, generally, was steady to strong during the week for choice cows. Sales ranged from \$30 to \$60, with the bulk selling at \$40 to \$50.

Veal Calves.—Receipts were large, the bulk being of the dairy class, selling all the way from \$3 to \$5.50 per cwt.; but choice new milk-fed calves would bring \$6 to \$6.50 per cwt.

Sheep and Lambs.—Receipts were light, with prices firm. Export ewes sold at \$5 to \$5.25 per cwt.; rams, \$4 to \$4.50; yearling lambs, \$6.75 to \$7.50 per cwt.; spring lambs, \$3.50 to \$7 each.

Hogs.—Receipts were moderate, but prices declined 25c. per cwt., selects selling at \$6.15 for hogs, fed and watered, at the market, and \$5.90, f. o. b. cars at country points.

Horses.—The horse market at the Union Horse Exchange, last week, held \$75,000, about 175 horses being reported

as having changed hands at good prices. There seems to be a growing demand for good wagon or delivery horses in the city of Toronto. More horses would have sold. Farm horses are selling fairly well, but farmers are reported by dealers as asking prices that would not leave a margin to pay the dealer's expenses. Shipments were made to Montreal and other eastern points. The quality of the horses sold was generally good, and prices were reported as follows: Drafters, \$175 to \$220; good farm blocks, \$160 to \$200; delivery horses, \$150 to \$180; drivers, \$125 to \$200; serviceably sound sold at \$35 to \$95 each.

BREADSTUFFS.

Wheat.—No. 2 white, winter, 94c. to 95c.; No. 2 red, 94c. to 95c.; No. 2, mixed, 93c.; goose, 90c.; Manitoba, No. 1 Northern, \$1.19; No. 2 Northern, \$1.15; No. 3, \$1.10; feed wheat, 65c.; No. 2 feed, 59c., at Georgian Bay ports.

Barley.—No. 2, 50c. to 55c., but holders are asking 60c.

Corn.—No. 3 yellow, 73c. to 74c., Toronto.

Peas.—No. 2, 90c., outside.

Rye.—Wanted at 88c.

Buckwheat.—No. 2, 64c. to 65c.

Oats.—No. 2, white, 49c., on track at Toronto.

Bran.—Car lots, bags included, \$25, on track at Toronto.

Shorts.—Car lots, bags included, \$26.50.

Flour.—Ontario patents, \$3.45; Manitoba patents, special brands, \$6 to \$6.10; second patents, \$5.40 to \$5.60; strong bakers', \$5.30.

COUNTRY PRODUCE.

Butter.—Receipts becoming larger; market easier. Creamery, pound rolls, 30c. to 31c.; separator dairy, 28c. to 29c.; store lots, 25c. to 26c.

Eggs.—Receipts none too large; market stronger, at 17c. to 18c.

Cheese.—Offerings of new cheese are reported in small lots, but enough for the demand. Old, firm at 14c. for large, and 14c. for twins; new is quoted at 12c. for large, and 12c. for twins.

Potatoes.—Market firm. Ontario, 85c. to 90c.; New Brunswick Delawares, 95c. to \$1 per bag, for car lots, on track here.

Beans.—Market continues firm at \$1.70 to \$1.75 for primes, and \$1.80 to \$1.85 for hand-picked.

Honey.—Market easy since the new maple syrup came in. Extracted, 11c. to 13c. per lb.; combs, per dozen sections, \$2.75 to \$3 for No. 1 clover.

Hay.—Baled, in car lots, on track at Toronto, \$15 to \$15.50.

Poultry.—Receipts continue light; prices firm, at 18c. to 22c. per lb.; last year's chickens, 18c. to 20c.; hothouse spring or winter chickens, weighing 2½ to 3 lbs. per pair, sell at 50c. to 65c. per lb.; old fowl, 12c. to 15c. per lb.; squabs, \$2 to \$3 per doz.

TORONTO FRUIT MARKET.

Choice No. 1 Spies are worth \$3.50 to \$4 for sound, well-colored fruit; No. 2 Spies, \$2.50 to \$3; North Carolina and Tennessee strawberries are selling at 15c. to 20c. per quart box.

VEGETABLES.

Onions, \$1.25 to \$1.40 per bag for Canadians. Bermuda and Egyptian onions are quoted at \$3 per sack, and \$2.50 for bushel crate; lettuce, 15c. to 20c. per bunch, and large heads at 75c. to \$1.25 per dozen heads.

TORONTO BACON AND DRESSED-HOG MARKET.

The Toronto bacon market is quoted by commission dealers as follows: Backs, 16c. to 16½c.; breakfast bacon, 15c.; long clear, 10½c.; light hams, 13c. to 14c.; shoulder, 9½c.; rolls, 10c. Dressed hogs are selling at \$8.75 to \$9.25 per cwt.

HIDES AND SKINS.

The E. T. Carter Co., 85 East Front Street, wholesale dealers in wool and hides, were last week paying the following prices: Inspected hides, No. 1 cows and steers, 6½c.; inspected hides, No. 2 cows and steers, 5½c.; country hides, rough, green, 4c.; country hides, trimmed and cured, 5c.; calf skins, city, 10c.; calf skins, country, 9c.; horse hides, No. 1, \$2.50; horse hair, per lb., 23c.; tallow, per lb., 4½c. to 5½c.; sheep skins, 70c. to 80c.

TORONTO SEED MARKET.

The Wm. Rennie Co. quote the following as their selling prices for seeds: Red clover, No. 1, per bushel, \$14.40; red clover, No. 2, per bushel, \$14.10; alsike clover, No. 1, per bushel, \$12.30; alsike clover, No. 2, per bushel, \$11.10; alfalfa, No. 1, per bushel, \$13.80; timothy, No. 1, per cwt., \$7.75; timothy, No. 2, per cwt., \$7.25.

MONTREAL.

Live Stock.—Export cattle were rather scarcer and dearer in the Chicago market, and inquiry from American exporters for ocean-freight space from Montreal was quiet last week. Canadian exporters are also taking very little space. As a result, freight rates were rather weaker, and agents were ready to take 25s. for Liverpool and London, and 30s. to Glasgow. American exporters have refused Portland-Liverpool space at 25s. The local cattle market showed considerable improvement, prices registering an advance of about ½c. a lb., mainly owing to a considerable reduction in the offerings. The better classes of cattle were scarce, and buyers have been paying a high price for them in the country. Exporters paid 5½c. to 6c. for steers, and 5½c. for cows, while butchers took choice beef at 6c. to 6½c.; fine, 5½c. to 5¾c.; good, 5c. to 5½c.; medium, 4½c. to 5c.; common, down to 3½c., and lower grades down to 3c. a lb. There was hardly any offering of sheep and lambs, the supply in the country being exceedingly light, and drovers got high figures for delivery in the immediate future. Prices very firm, 7c. to 7½c. being paid for choice yearling lambs, and 5½c. for sheep. Spring lambs are naturally more plentiful, and prices declined \$1 a head, good animals being obtainable at \$3 to \$6 each. A fair supply of calves. Prices held about steady, at \$2 to \$5 each, according to quality. Receipts of hogs were again very light, and prices forced up ¼c. a lb., selected lots being sold at 7c. a lb.

Horses.—The opening up of the spring work on the farm has occasioned some demand for the smaller class of horses. Otherwise there has not been much doing. Heavy-draft, weighing 1,500 to 1,700 lbs., \$250 to \$300 each; light-draft, 1,400 to 1,500 lbs., \$225 to \$275 each; good blocks, 1,300 to 1,400 lbs., \$200 to \$225 each; express, \$150 to \$225; common plugs, \$50 to \$75, and choice saddle and carriage animals, \$300 to \$350 each.

Dressed Hogs and Provisions.—Market for dressed hogs is slightly firmer last week, partly in response to increased strength in the market for live. Sales of choice, fresh-killed, abattoir-dressed stock, at 9½c. a lb.

Potatoes.—Green Mountains cost about 90c. for 90 lbs., carloads on track. Other varieties, from 80c. to 85c. Dealers turning stock over on track at an advance of about 5c. on the prices mentioned. When delivered into store, they obtain from \$1.05 to \$1.10 per bag of 90 lbs. for choice white.

Eggs.—Market was very firm, but prices somewhat uncertain. Generally speaking, dealers would not accept less than 19c., wholesale. In a smaller way, 20c. was being charged. The stock was costing fully 18c. in the country. The occasion for the higher prices was the failure of the Eastern and Western buyers to get together. These have been competing with each other to the advantage of the farmer.

Maple Products.—Market steady. Demand fair, and supply large. Syrup is sold at 4½c. a lb., in wood, and about 5c., in tins, sugar being about 7c. a lb.

Butter.—Merchants and exporters have been nervous over the situation. The price continued high, although the decline anticipated for some time past has at last developed. Country prices have been as high as 28½c. to 28¾c. a lb., yet it is said that these figures were not obtainable here. Monday, 11th, reported best creamery, 26c. to 27c.

Cheese.—Make so small as to be an easy subject of manipulation, and it is said that prices are being maintained by one of the large firms, which still has a quantity of old stock on hand; 11c. to 11½c. has been paid in the country for fadder cheese, values for white here being firm at 12c.

Feed.—Manitoba mill feed scarce, but the supply of Ontario increasing somewhat. Prices are \$23 per ton, in bags,

for Manitoba bran, and \$25 for shorts, Ontario bran being \$23.50 to \$24, and shorts, \$24.50 to \$25. Ground oil cake and nutted cake, \$33 to \$34 a ton, and gluten meal, \$1.50 per 100 lbs.

Hay.—No. 1 timothy very scarce, and selling at \$16 to \$16.50 a ton, carloads, Montreal; No. 2 extra, \$14.50 to \$15, and No. 2, \$13 to \$13.50; clover mixture, \$12 to \$12.50, and pure clover, \$11.50 to \$12 a ton.

Seed.—There is said to be no more alsike to be had in the country, too much having been exported this spring. Prices of red clover, \$23.50 to \$25 a 100 lbs., alfalfa being \$21 to \$22, and timothy, \$6.25 to \$7.50.

Grain.—The tone of the market is stronger, prices having advanced slightly under a moderate demand. Eastern Canada No. 2 white oats, 50c. to 52c. per bushel, carloads in store; No. 3 at 47c. to 48c.; No. 4, 46c. to 47c., and rejected, 43½c. to 44c.; Manitoba rejected being 46½c. to 47c.

Hides.—Spring lamb skins sell at 10c. each. Sheep skins, steady, at 75c. to 80c. each, and dealers paying 11c. per lb. for No. 2 calf skins, and 13c. for No. 1, beef hides being 5c., 6c. and 7c., according to quality; horse hides, \$1.50 to \$2 each.

CHICAGO.

Cattle.—Steers, \$5.50 to \$7.30; cows, \$3.75 to \$6.25; heifers, \$3.50 to \$6.75; bulls, \$3.50 to \$5.30; calves, \$2.50 to \$6.25; stockers and feeders, \$3.25 to \$5.75.

Hogs.—Choice heavy shipping, \$5.60 to \$5.65; butchers', \$5.60 to \$5.65; light mixed, \$5.55 to \$5.60; choice light, \$5.60 to \$5.65; packing, \$5.15 to \$5.60; pigs, \$4.15 to \$5.25, bulk of sales, \$5.50 to \$5.65.

Sheep and Lambs.—Sheep, \$5 to \$5.25; lambs, \$5 to \$5.75; yearlings, \$5.60 to \$5.70.

BUFFALO.

Cattle.—Prime steers, \$6.75 to \$7. Veals, \$5 to \$7.75.

Hogs.—Heavy and mixed, \$6 to \$6.05; Yorkers, \$5.90 to \$6.05; roughs, \$4.80 to \$5.10; dairies, \$5.75 to \$6.

Sheep and Lambs.—Lambs, \$5 to \$7.15; yearlings, \$6.25 to \$6.50.

BRITISH CATTLE MARKET.

London.—London cables cattle at 13c. to 13½c. per pound, dressed weight; refrigerator beef, 10½c. to 10¾c. per pound.

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 WAGES MATTER.

A hired B, an inexperienced immigrant, for twelve months, for \$200, from the 17th of April, 1907. B worked three months, then wanted more wages. A told B that he could not give him any more, as he was being taught the first year. A settled with B for the three months that B had worked, for \$50, then told B if he would work one year as faithfully as he did his first three months, A would give him \$225, as his last three months B would have a little experience. B took two days to think it over, then said he would hire, beginning his time the 17th of July, 1907. B worked till the 1st of April, 1908, then leaves A, with a week's notice. How should A and B settle?
 Ontario. SANDY.

Ans.—Having regard to all the circumstances stated, and such also as may fairly be inferred from the statement of facts given us, we would suggest that the payment by A to B of \$135 would be a fair settlement.



Life, Literature and Education.

(Contributions on all subjects of popular interest are always welcome in this Department.)

SELECTIONS FROM THE POETS.

The White Canoe.

(By Allan Sullivan, C. E., of Kenora, Ont.)

There's a whisper of life in the grey, dead trees,
And a murmuring wash on the shore,
And a breath of the south in the loitering breeze,
To tell that a winter is o'er.
While, free at last from its fetters of ice,
The river is clear and blue,
And cries with a tremulous, quivering voice,
For the launch of the White Canoe.

Oh, gently the ripples will kiss her side,
And tenderly bear her on;
For she is the wandering phantom bride
Of the river she rests upon.
She is loved with a love that cannot forget,
A passion so strong and true,
That never a billow has risen yet,
To peril the White Canoe.

So come when the Moon is supreme in the sky,
And the echoes are sweet and low,
And Nature is full of the mystery,
That none but her children know.
Come, taste of the zest that the weary crave
But is only revealed to a few,
When there's trouble on shore, there's peace on the wave,
Afloat in the White Canoe.

THE DESTRUCTION AND ECONOMIC VALUE OF BIRDS.

(A paper read before the Society for Nature Study and Bird Protection, by Herbert C. Merrilees, Hamilton, Ont., March 21st, 1908.)

There is nothing before our people to-day of a more practical nature than bird protection. It is a subject of vital importance, affecting every human being; that is, when we protect the birds, we also protect ourselves. No doubt many of you know something of the economic value of birds in destroying insects, which are among the worst enemies with which the farmer and fruit-grower have to contend. The U. S. estimate their annual loss to farm crops at \$595,100,000, and, adding to this the loss to natural forests and stored products, makes a grand total of \$795,100,000 loss through insects. You may judge from this how much greater the loss would be were there no birds.

The causes of bird destruction are many. One which is most prominent is the vanity of women in persisting in the use of feather millinery.

The first part of my paper will give you some facts on the destruction of the birds, and the rest will deal with the study and value of them.

I.

The advocates of protection for our small birds present two sets of rea-

sons for preventing their killing, namely, sentimental and economic.

The sentimental reasons are the ones most often urged; they are also of a kind to appeal with especial force to those whose responsibility for the destruction of the birds is greatest. The women and girls, for whose adornment birds' plumage is chiefly used, think little or know less about the services which birds perform for agriculture, and, indeed, it may be doubted whether the sight of a bunch of feathers or a stuffed bird's skin suggests to them any thought of the life those feathers once represented—these lives cut short merely that their apparel might be admired. Women should be quick to recognize that bird destruction involves a wrong, and do their part towards ending it by refusing to wear plumage.

While this cruel fashion was at its height, a London dealer received at one time more than 30,000 dead humming birds; and not only the brightly-colored, but any small bird, by means of dyes, may come at last to such base uses. All these carcasses are steeped in arsenical solutions to prevent their becoming as offensive to the nostrils of their wearers as they are to the eyes of bird lovers.

In a report of the American Ornithologists' Union, 1886, it was estimated that 5,000,000 birds were required yearly to fill the demands of American women for ornamentation of hats. It is now estimated that double that amount are required. The report also states that the destruction was 40,000 tons in a single season on Cape Cod. It has been proved that 150,000,000 birds are used annually in Europe for the millinery trade. One dealer received from the West Indies 400,000 humming birds and 6,000 birds of Paradise, besides thousands of miscellaneous birds. A million rail and bobolink were killed in a single month near Philadelphia. These are facts that may well furnish food for reflection. The swamps and marshes have become depopulated of their egrets and herons, done to death while watching over their little ones, which afterwards die of starvation. An article in Forest and Stream states that, in the short period of four months, 20,000 birds were supplied to New York dealers from a single village.

If the women of this country would refuse to buy or wear hats containing the plumage of wild birds, 95 per cent. of the slaughter that now goes on would cease.

Will the farmers and fruit-growers stand by and allow the birds, their best friends, to be killed, that a trifling interest like the millinery trade may make a few dollars, at the sacrifice of much that is beautiful and of economic value?

Now we will consider the ordinary utility of a bird. Those of us who know little or nothing of their real economic value are liable to be unjust. We are likely to lay the sins of a particular bird upon the whole tribe. We see a Cooper's hawk swoop into the yard and strike a chicken, and we are out with a gun for every other hawk we can see, regardless of the fact that many of the hawks live almost entirely on

squirrels, moles, mice, grasshoppers, beetles and the like, and are among the most useful birds we have. It is a grave mistake to sacrifice a hundred birds, as we do, for the sins of one guilty bird. A man who lives in the country ought to have a common knowledge of bird habits. For his own good and the welfare of the country, he ought to be able to discriminate between good and bad wild birds, just as he learns to distinguish between good and bad domestic birds and animals.

Because a blackbird is in a grain field, it does not signify that he is doing harm. Woodpeckers are often shot for coming into orchards, when a careful examination will show that they are destroying injurious insects. There are many instances where birds have been killed because of their destruction to fruit, when an examination of their stomachs showed that they were eating more insects than fruit.

There are few instances where birds become so abundant as to do more real harm than good. For, although some of the birds eat fruit, this is not the main part of their diet. The majority of birds are continually hunting and catching insects. During the breeding season they live largely and rear their young almost exclusively on this food. Wherever insect food is plentiful, the birds resort to such a locality.

The part that birds play in economic life is to hold the balance of nature even by keeping in check the great numbers of insects and small rodents. They are active every season of the year. Their rapidity of digestion is remarkable. Many young birds digest food in one or two hours. A young bird will consume about ten times its own weight from the time it hatches till it leaves the nest. A bird often raises two or three broods; they perform a great amount of work. Where insect and animal food is abundant, the birds thrive; where it is lacking, nature keeps the bird numbers in check.

In certain places, where insects and rodents have threatened crops and become abnormally numerous, the birds soon discover the abundance of food, and flock in large numbers. In this way they help to regulate such outbreaks. An example of this was shown a few years ago in a large apple orchard in Central Illinois that was attacked by cankerworms. Prof. S. A. Forbes, of the State Laboratory of Natural History, visited the orchard for two successive seasons, and collected various species of the birds there. An examination of stomach contents of these birds showed that the birds were very useful in reducing this outbreak of injurious insects. Out of 141 bird stomachs examined, including 36 species of birds, it was found that 60 per cent. of the birds killed had been eating cankerworms, and of the 36 species, 72 per cent. of them were eating worms. Taken as a whole, it was found that 35 per cent. of the food of all the birds of the locality consisted of cankerworms. So we find that, during this time, when the pest got the upper hand, nature used the birds to restore the equilibrium. Birds of the field and forest were attracted by the bountiful supply of in-

sect food, and birds of all sizes and habits were feeding on worms and reducing the numbers.

Out of the flock of 35 cedar waxwings, seven birds were shot. With the exception of a few small beetles, it was found that these birds were living entirely on cankerworms. By actual count, it was found that there were from 70 to 101 worms in the stomachs of each of these birds. If we assume that, on an average, each of these birds ate 100 worms during the day, the flock of 30 were destroying 3,000 worms a day, or, during the month when caterpillars were out, the flock were destroying 90,000.

Another instance showing the utility of birds in checking insect pests is shown in the experiments carried on by Prof. Samuel Aughey, of the University of Nebraska, during the outbreaks of the Rocky Mountain locust or grasshopper, in 1865 and 1877, and they showed that all the birds of the locality were doing their best to check the outbreaks of these injurious insects.

Thrushes, kinglets, chickadees, nuthatches, warblers, hawks, vireos, swallows, crows, bluejays, blackbirds, kingfishers, woodpeckers, owls, pigeons, grouse, quail, gulls, and even humming birds and water birds, had all taken to eating locusts. Forty-one locusts were taken from the stomach of a blackbird. A tiny ruby-throated humming bird had four small locusts in its stomach. Six robins had eaten 265 locusts. Sixty-seven locusts were found in the stomachs of three bluebirds. One little ruby-crowned kinglet had eaten 29. Many of these and other birds were feeding their young on locusts. One barn owl had eaten 39 locusts. Eight screech owls had eaten 219 locusts. All the hawks were feeding on grasshoppers, the same as the owls.

In order to tell whether a bird is of more value than harm economically, the Department of Agriculture at Washington has for the past 15 years been making a study of the contents of birds' stomachs. In various parts of the country, and during all seasons of the year, different species of birds have been taken, and the stomachs have been preserved. These are carefully tagged and placed in a solution of 5 per cent. formalin and 80 per cent. alcohol. Later on these have been carefully examined and studied by experts who have identified such insects as are eaten, and taken an exact percentage of the various kinds of food eaten. After an examination of a large number of each species, these experts have been able to tell exactly the part that these birds take in our economy of nature; to what extent, if any, the bird is harmful to farmers and orchardists, and to what extent it is beneficial.

Some birds live by hunting through the leaves and branches, others by hunting the larva that are in the bark of the tree-trunks; others scratch up the fallen leaves and the loose soil, while others are continually engaged in catching the flying insects.

In a day's time, the chickadee has been known to eat hundreds of insects' eggs and worms that are harmful to our trees and vegetables. A brood of three young chipping sparrow

rows were watched during one day, and they received food 187 times from the parents. A family of four song sparrows, 7 days old, were fed 17 grasshoppers and two spiders in 67 minutes. The flycatchers and swallows destroy vast numbers of flies and gnats that annoy horses and cattle. The food of the flicker or highhole consists largely of ants; 3,000 of these have been taken from the crop of a single bird. The food of the meadow lark consists of 75 per cent. of injurious insects and 12 per cent. of weed seed, which shows it is a bird of great economic value. A single robin has been known to eat 175 caterpillars. One bobwhite that was killed had over 100 potato bugs in its crop; another had eaten 500 chinch bugs. After the day-flying insects have ceased their work and gone to sleep, the night hawk is busy catching untold numbers of mosquitoes, moths and other insects. Prof. Harvey found 500 mosquitoes in the stomach of one night hawk. Hawks are especially equipped to catch moles, gophers, squirrels and mice, and they keep these harmful rodents in check. During the summer, a pair of red-tail hawks will destroy hundreds of squirrels, gophers and mice. The sparrow hawk lives mostly on grasshoppers, crickets and mice. One bird that was killed had eaten a gopher and 31 insects. The hawk hunts by day, and the owl by night. The work of the one supplements that of the other. Observations show that one owl consumed over 600 mice in 246 days. The barn owl will capture as many mice and gophers in one night as a dozen cats.

The worst enemy of the birds, apart from man, is the domestic cat. One, at a low estimate, will devour 50 birds in the nesting season on a single farm. A cat tax would doubtless do much to help the multiplication of birds. Pending its enactment, those who love to see and hear the birds near their home would do well to follow the suggestion made in a recent book, that the house-cat be prevented from roaming about during the time when young birds essay their first flight, by confining her within a large enclosure of wire netting.

The birds about a farm may be classed as natural resources. Some birds will destroy a large amount of fruit or grain unless driven from the trees and fields. In keeping the birds from eating fruit, we compel them to eat insects; thus, instead of being an injury, they are turned to real advantage.

Have we the right to clear the land of the natural food of the birds and then refuse them the fruit of our trees and the grain of our fields? Should we not provide them something in return for the good they do us, just as we provide for our domestic fowls? It is a sign of thrift when an orchardist or farmer tries to get the most out of the birds about him, instead of killing them off. If the birds insist on destroying fruit—there is always a little unused ground about a farm—why not plant a few mulberry trees or some evergreen blackberries along the fence, or in some out-of-way corner let a few seedling cherry trees grow for the birds? The number of birds that are harmful, including those that do slight injury, is so small that we ought to be able to control these. The number of culprits, all told, is but a small fraction of our birds.

A great many people give bird protection no thought at all, because they think it does not personally concern them or their welfare—does, not, to make it short, touch their pocket. Others say that it is nothing but sentimental effort. Yes, but that is not all, when we take this \$600,000,000 loss from insects into consideration. If we protect the birds, we destroy the insects. To destroy insects means to save the farming interests millions of dollars. Don't you make the mistake of thinking the agricultural situation of no concern to you because you happen to earn

your living by adding columns of figures or selling cloth over the counter, instead of hoeing potatoes. On the farms hangs the whole question of industry. If the crops are good, times are good; if the crops are bad, times are bad. To protect the birds, is to increase your own immediate business, whatever it may be. To deny yourself to bird protection is a form of ignorance almost as dense as to deny your children the advantages of schooling.

Before finishing my lecture, I wish to give you some additional notes on some questionable birds:

English Sparrow.—Five hundred and twenty-two stomachs examined. They contained mostly wheat, oats and corn, and the birds took little interest in insects. Of the insects the stomachs did contain, 47 kinds were harmful, and 50 kinds beneficial.

Crow.—Nine hundred stomachs examined. It was found that the quantity of forbidden food was so small that it was more than counterbalanced by the good done in destroying injurious insects and animals. Three per cent. of their food was found to be sprouting corn and one per cent. eggs and young of poultry and birds. Twenty-six per cent. of the entire food consists of insects, grasshoppers, May beetles, cutworms, etc. An important item in the crow's diet is mice.

Blue Jay.—Two hundred and eighty stomachs were examined, and the remains of birds' eggs were found in three, and birds in two. Seventeen per cent. of food of the year is corn, and 22 per cent. insects, such as grasshoppers and caterpillars.

The sapsucker drills holes in the bark of trees, not to get sap, as is commonly supposed, but to lure insects to the spot. The woodpecker remains with motionless body, and feeds upon insects at his leisure. True, he sometimes kills ornamental trees by his habits, but for one that does that, others are at work on forest trees which he cannot harm.

Experiments have been made to see if the sapsucker could live exclusively on the sap diet, but in each instance the birds died. Thirty-six per cent. of the solid food of the sapsucker consists of ants, wasps, beetles, bugs, flies, grasshoppers, etc.

To induce him to leave ornamental trees alone, plant dogwood, black alder, Virginia creeper, black cherry and juniper.

[We are glad to learn of the existence of this society, and trust that others of a similar nature may be organized in other parts of Canada. Before leaving this subject, we should be glad to hear from any of our readers who have made personal observations in regard to the work of the sapsucker or yellow-bellied woodpecker. Neltje Blanchan speaks of this bird as decidedly injurious to trees, an imputation which Mr. Merrilees, probably on as good authority, denies. In order that no confusion in regard to species may arise, each note of observation should be accompanied by a minute description of the bird itself. . . . Let us hear from you in regard to this matter.]

SOMETHING ABOUT THE VICTORIAN ORDER OF NURSES.

I. In the year of the Diamond Jubilee of her late Most Gracious Majesty Queen Victoria, the intention to commemorate in some especial and definite form an epoch of such historical importance came from every part of the British Empire; thus, amid the general rejoicings in the motherland itself, congratulations from outer Britain poured in, and with them came the earnest requests from her scattered people that Her Majesty would graciously permit them to mark this crowning year of her glorious reign by some imperishable token of their undying loyalty and devotion. In such a request as this, it was not likely that the voice of the eldest daughter of the motherland, the big Dominion of Canada, would be silent. Thus it came about

that, through its Founder and President, Lady Aberdeen, the wife of our Governor-General, the petition of the National Council of Women of Canada was placed in the hands of our beloved Queen, and the royal consent was given, with most kindly words of appreciation, that Canada's women should have their memorial, too. "But," added Her Majesty, "I desire that every such memorial should take the form of ministering in one way or another to the sick and suffering."

And thus was the keynote struck, which vibrated as a chord of the tenderest music, and, finding its echo throughout the length and breadth of our land, first touched the sympathetic hearts of Canada's loyal women, and then, through them, reached the ears of husbands, fathers, sons and brothers, until, after much patient work, some misunderstandings and disappointments, but far more encouragements, there sprung into being a living, breathing monument to the memory of Victoria the Good, known and recognized as such throughout our country, from the Atlantic to the Pacific, as the Victorian Order of Nurses.

As long as she lived, Queen Victoria was the Patroness of the Order, and now her present Majesty Queen Alexandra honors it by continuing in the same relationship towards a work with which she, also, is in the fullest accord.

The Governor-Generals of Canada and their wives, each in succession from the founders of the V. O. N., Lord and Lady Aberdeen, have become its patrons, whilst upon its executive board of management stand the names of some of our country's leading men and women, past and present, the Central Training Home of the Order, in Ottawa, being the gift, in perpetuity, of Lady Aberdeen herself. The work is carried on upon wholly undenominational lines, the only claim upon its benefits being the need of the applicant for the same. It is not my purpose to offer accurate statistics of the actual growth and progress of this most beneficent work. I will just mention the names of some of the places where either as cottage hospitals or in district work the large staffs of Victorian Order Nurses are so successfully carrying on their errands of mercy: Ottawa, Montreal, Toronto, Kingston; Yarmouth, N. S.; Almonte; Hamilton; St. John, N. B.; Halifax, N. S.; Vancouver, B. C.; Sydney, C. B.; Gravenhurst; Winnipeg; Baddeck, C. B.; Canso, and Truro, N. S.; Yorkton, Sask.; Dauphin, Man.; Harrington, Labrador; Arrowhead; Rock Bay and Fernie, B. C.; Shoal Lake, Man.; Copper Cliff, Ont.; Pictou, N. S.; Indian Head, Sask.; Brantford and Stratford, Windsor up my list by the mention of our own London, Ontario Branch, established two years ago, during which time no less than 1,714 visits have been paid by its nurse, including 1,336 in the first two years, and no less than 378 in the first three months of this, its third year; total, 1,714. All this, one nurse has achieved single-handed, and the crisis has come to us, as it has come to so many other centers, that a coadjutor must, in justice to the nurse and her work, be provided for her.

At a recent meeting in London, Ontario, the Mayor, some of the city clergy, and several members of the medical profession, were present, other medical men writing regrets for their absence, but all alike testifying to the unspeakable value of the ministrations of a trained Victorian Order visiting nurse in the homes of their patients.

One can write or speak more definitely of work with which one is in personal touch, and that must be the writer's excuse for making more especial mention of the London Branch. "The Farmer's Advocate" is read in many centers where the Victorian Order is carrying on its blessed mission of ministry, and if any of its readers would kindly tell us how, under similar financial strain, they have solved the problem of making

provision for a second nurse, when already it was a matter of difficulty to meet the necessary expenses for one, the London Branch would be very grateful.

For over two years, thanks to the generous initiatory grants from Ottawa, the parent centre of the V. O. N. work, London managed to make both ends meet—just that, and no more—but now that we must extend our borders or limit our usefulness, we recognize the necessity for still more definite efforts.

Thanks to the kind response given to the first plea made by the London V. O. N. to be placed upon the list of the city benefactions, \$200 have this year been granted to us, thus placing our branch upon the footing of so many other centers which have had the recognition and a share of the practical support of their civic authorities. This is one of our encouragements, but not the only one. We are hoping that the ministers of our several churches will consent, as some have kindly done already, to plead our cause on Victoria Day, for what day could be more fitting, and this year it falls upon a Sunday? We are also asking our fraternal societies, in loyal memory of the Diamond Jubilee of Victoria the Good, to gather for our treasury a few coins from their members; but most of all, and beyond all, we rely with greatest confidence upon the blessing promised by the Giver of All upon every effort made by the humblest of His servants, to minister in His name to the sick and suffering amongst whom our lot may be cast.

H. A. B.

The Quiet Hour.

"THESE . . . HAVE WASHED THEIR ROBES."

(Rev. vii.: 14).

"In Repentance, too, is man purified. It is the grand Christian act." Though these words of Carlyle's express a great truth, one of our readers has drawn my attention to the fact that I have seldom written an article on the subject of Repentance. Surely it is not because I underrate this "grand Christian act." I hope it is rather because I take it for granted that Repentance is already laid as a foundation in the lives of all who take the trouble to read the Quiet Hour. In the Epistle to the Hebrews we are exhorted to "leave" the first principles of the doctrine of Christ, and "go on unto perfection; not laying again the foundation of repentance from dead works, and of faith toward God, of the doctrine of baptisms, and of laying on of hands, and of resurrection of the dead, and of eternal judgment." I suppose I have almost unconsciously taken it for granted that you—my dear friends to whom I speak each week—are trying to build a holy life on these necessary "principles." I don't mean that because you have repented of the sins of the days when you made no attempt to follow Christ, that now you have done with repentance for the rest of your life. Far from it. I only mean that because you are earnestly trying to be a faithful disciple, you cannot help repenting your many failures. Repentance must be a necessary part of a Christian's daily life as long as he finds himself so far beneath his ideal as he must be in this life. Though St. John says that the blood of Jesus Christ cleanseth us from all sin, he is very quick to warn us that we are not, therefore, faultless, for he immediately adds: "If we say that we have no sin, we deceive ourselves, and the truth is not in us." We must begin our Christian life with Repentance, and then the daily sorrow for having missed our mark will follow as long as we are aiming at perfection and find ourselves still very far from perfect. If we are to take our place in the great multitude which no man can number and stand before the Throne, clothed in white, it is very certain that we must, like the others, have "washed" robes; for only Christ has ever succeeded in keeping a robe spotlessly white all through life. God is ready to do His part, and to do it

flawlessly. He does not offer us a robe that is faded and shabby, one that has been washed so often that all its fair freshness is gone. No, His washing is able to restore lost beauty—impossible though that may seem. Has He not graciously promised: "Though your sins be as scarlet, they shall be as white as snow; though they be red like crimson, they shall be as wool." Has He not promised to put our sins as far away from us as the east is far from the west—do you know how far in infinite space that is? He has said that He will sit as a refiner and purifier of silver, refining His servants as gold and silver, that they may offer unto Him an offering in righteousness. Such promises—and they are scattered broadcast through the Bible—are good tidings to us all, for we have all sinned over and over again, and surely we all long to wear the beauty of holiness, we all want to be robed in stainless white. It seems almost too good to be true that sin can really be blotted out. Some people don't seem to wish this Gospel of forgiveness to be true. Like the elder brother in the parable of the Prodigal Son—which has been called "the gospel in the gospel"—they object to have a sinner received with rejoicings, they don't think it is fair that he should wear a fresh and beautiful robe and be clasped close to a loving Father's heart without any period of probation. Forgiveness, full and free and instantaneous, seems almost like injustice, and repentance seems too easy a price to pay in order to have years of wilful sin wiped out like writing on a slate—wiped out as though it had never been. But do we not sometimes confuse the guilt of sin and its painful consequences? Christ died in order that the guilt of sin might be removed, in order that we might be cleansed from stain; but dare anyone say that he can sin without feeling the sad consequences? When the frightened Apostle denied his loved Master he repented instantly as he met the look of love and forgiveness. He was forgiven. He was soon after reinstated by the threefold commission as he had thrice denied; the sin was blotted out, and he was white again, but he could not escape the sad consequences of his sin. Just a few short words, and he must suffer from them all his life! That hurt, disappointed, loving look from his dearest Friend, that look which caused him to weep bitterly, must have cut him to the heart as often as he remembered it—and when could he ever quite forget it? His shame before his fellow-disciples at that weak denial was a pain that he would hardly think of in the shame and pain of his own remembrance of his disloyalty. You elder brothers, who keep the prodigals coldly at a distance from a sense of justice, don't you think that St. Peter, though he was instantly forgiven, suffered enough for his sin? So, also, it was in the case of David. When he said, in sudden but heart-felt repentance, "I have sinned against the Lord!" his fainting spirit was instantly upheld from despair by the ready words of absolution, by God's pardon, delivered by His ambassador. But David had to endure all the rest of his life not only the outward consequences of his sin, but the far more terrible inward shame and sorrow. His repentance could not restore to life the man he had caused to be cruelly murdered, could not make him forget that he had stained the beauty of high innocence and trodden his treasured purity in the mire of foul sin. As a man soweth so shall he also reap, and no one need think that because repentance can bring instant forgiveness, sin is therefore a pleasure that may be lightly indulged. Every sin brings punishment, and usually swift punishment too. A career of vice and dissipation is a most miserable and unsatisfying one. The way of transgressors is hard.

But repentance is not only for those who have lived careless or ungodly lives, it is wrought into the texture of every Christian's daily life. In fact, the nearer we get to God the more instinctive and habitual our repentance must needs be. "The goodness of God leadeth thee to Repentance," says St. Paul, and as we keep our eyes fixed on the beauty of our holy King, we grow more and more dissatisfied with our own measure of holiness, we are continually repenting with that kind of repentance that inspires us to climb higher. Those who have their eyes fixed on God can never be satisfied to set down in easy content with their

own spiritual condition. Goodness, even in men and women like ourselves, is the greatest incentive to us to be good too. It makes us dissatisfied with ourselves, and inspires us to aim at the highest goodness. The goodness of GOD, if kept always before our eyes, must lead us to repentance. Seeing His marvellous beauty of holiness we cannot help trying to be holy too, cannot help being ashamed of our own stained robes, cannot help longing with an increasing heart-hunger for the washing which can restore our soiled garments, and make them more dazzling white than any fuller on earth can whiten them. A worker among the poor, who was distressed at the dirty hands and faces of the women who came to the mothers' meeting every week, did not say a word about it to them, but simply showed them the beauty of purity and the ugliness of uncleanness. She bought a pair of white kid gloves and shook hands with every woman as she entered the room. Then she wore the soiled gloves all the evening. The next week she had another pair of white kid gloves, and again the women ruined them. After a few weeks, the women took the hint and came with cleaner hands, until at last she found that dirty hands were the exception rather than the rule. Another worker in the slums said that the most refining influence you could exert was to invite poor people to a meal, and let them sit down to a table which was covered with a snow-white cloth. He found that the vision of purity had a refining influence on mind and heart. Another man declared that "the best way to keep a man out of the mud is to black his boots." So the surest incentive to repentance is to keep always before our eyes the vision of the King in His beauty, and the best way of rousing other people to be sorry for their sins and enthusiastic in the pursuit of holiness, is not to talk continually to them about the wickedness of sin, but to let them see the beauty of holiness from Sunday morning to Saturday night. We all naturally resent being driven with a scourge, but those who show forth in their everyday life the beauty of purity, humility, love and joy, cannot fail to be strong magnets attracting all souls around them to struggle after the same shining virtues. Why else has GOD come down to live a life of spotless beauty here on earth? Can anyone really gaze on the wonderful forgiveness of the King on His cross, and then go out cherishing resentment against those who have been unjust or unkind in some petty matter towards himself? Can anyone see a life of perfect self-sacrifice, poured out generously and enthusiastically in the service of men, and not be inspired to make some attempt to walk in the same difficult but glorious path? Repentance, if it means anything, means that we are sorry for past sins and are earnestly bent on doing better for the future. But we all know that we are desperately weak. Perhaps we make a strong resolve to be loving towards our fellows. We see the ugliness of cross looks, and the harshness of irritable tones. We see what a black and ungenerous thing it is to speak unkindly of others—others who think we are their loyal friends—behind their backs, and we resolve that we will not again be guilty of such low treachery. And then—terribly soon—we again wake to the knowledge that we have been poor and weak and wanting in real love. We have failed, but we do not lose courage because we are sure that GOD loves us and that He will lift us tenderly from the place where we have fallen, and will wash us from the stains we loathe. He is always willing to give us a fresh chance. No wonder the "woman who was a sinner" was encouraged to make the necessary struggle after purity again. Scorn and shame and disgrace might fail to help her, might crush her down in hopeless despair, but the hope of possible beauty of soul, the sight of One who wore the "white flower of a blameless life"—and whose holy thoughts made themselves felt as holy thoughts always do make their presence known—filled her with sorrow for her own stained garments, and an eager desire for the whiteness she had recklessly thrown away. It is not so much God's hatred of sin, as His tender love of sinners that makes us see our need of cleansing. Why do women instinctively want to clean their houses in the spring? Why

do the clothes they have worn in comfort all winter suddenly look shabby and dirty? Is it not because the world is putting on new clothes everywhere, the blossoming trees and fresh green grass and glorious sunshine make us all feel ashamed of being dirty and untidy. We want to be spotless, because we see beauty all around us. We hate our sins, and long for real cleansing, because we look up into the pity and purity of our Most Holy God. We have all sinned, have sinned over and over again, and we are cheered and encouraged to make a fresh start every day by the picture of our dear Lord's tenderness towards the weeping woman who washed His feet with her tears and poured out fragrant ointment in token of her penitent love. His anger could not have accomplished more than the terrifying her from the commission of sins, but His tender love and promise of a new and fresh beauty of soul made her place every secret thought of her soul before Him to be purified. Despair may crush, but hope gives courage for the fight—and the deeper we have fallen, the harder the fight must necessarily be. Let no one imagine that repentance is an easy thing; let no one go on lightly in a career of careless or wilful sin fancying that his soul can be easily made white again, and, therefore, it does not matter. The woman who was drawn to repentance by seeing the hideousness of her sinfulness as it showed so plainly against the purity of Christ's shining beauty, would have given all she possessed if only she could know that the past was a terrible dream, to know that she had kept the most priceless possession undefiled. The loving tenderness of Christ cut her to the heart when the scorn of the proud Pharisee only fell on hard indifference. Repentance, if it is worthy of the name, is real pain, just because God's forgiveness is so instant and so complete. The prodigal son must have felt the shame of his ungrateful disobedience with tenfold power when he was received with such undeserved tenderness.

"I have a message—I have more to say!
Shall Sorrow win His pity, and not Sin—
That burden ten times heavier to be borne?
What think you? Shall the virtuous have His care
Alone! O ye good Women, it is hard to leave
The paths of virtue and return again!—
What if this sinner wept and none of you
Comforted her? And what if she did strive
To mend, and none of you believed her strife,
Nor looked upon her? Mark, I do not say,
Though it was hard, you therefore were to blame.
But I beseech
Your patience!—Once in old Jerusalem
A woman knelt at consecrated feet,
Kissed them and washed them with her tears.
What then?
I think that yet our Lord is pitiful."

Think how wonderful it was to see the Master washing His disciples' feet, washing from them all the dust and defilement contracted during the day! And He is ready to do this still. We have been once washed from past sins and started afresh, but every day our robes are stained and soiled with petty sins. Perhaps sometimes they are blackened with terrible defilement, though it may be a secret foulness which is none the less hideous because it is a thought-sin and is only seen by God and the sinner's conscience. Over and over again the Master stoops to wash our feet, to make our stained garments glistening and beautiful. He is so patient, so hopeful, can we fail to try our best, can we fail to be very truly sorry for past failures? Thank God for it! We have all the right to say, "I believe in the forgiveness of sins." We all need the infinite forgiveness of our dear Master to set us on our feet after every fall. We need the encouraging clasp of His strong hand to hold us up. Without Him we can do nothing, but with Him—with His life-pouring ever freshly through our veins—we can hope to stand before the Throne, clothed in white, cleansed from every stain. Our Leader never leaves us alone. He is always at hand to

strengthen such as do stand, to comfort and help the weak-hearted, to raise up them that fall, and, finally, to beat down Satan under our feet. We may go on our way rejoicing, because we can all be "more than conquerors through Him that loved us."

Before closing, I wish to thank the many readers of the Quiet Hour who have written cheering words of encouragement to me. What greater gladness can I have than to find that God is willing to send messages through me? I consider it a rare privilege to be allowed to speak to you who love Him, week after week.

"Our fellow-travellers still
Are gathering on the journey! the
bright electric thrill
Of quick instinctive union, more frequent
and more sweet,
Shall swiftly pass from heart to heart
in true and tender beat.
And closer yet and closer the golden
bonds shall be,
Enlinking all who love our Lord in pure
sincerity!
And wider yet and wider shall the cir-
cling glory glow,
As more and more are taught of GOD,
that mighty love to know."
HOPE.

The Young People's Department.

[All letters for Young People's Department must be addressed to Cousin Dorothy, 52 Victor Ave., Toronto.]

THE MAPLE WOODS.

When the winter storms are over,
And the days are getting warm,
And the snow is slowly melting
In the old woods on the farm;
Then they tap the spreading maples
For their sap so pure and clear,
And carry it in buckets
To the kettles boiling near.

Oh, how we love to gather
Round the blazing fire at night,
And watch the syrup boiling
In the kettles clear and bright,
Then, when everything is ready,
And the fire is burning low,
We have a merry frolic,
Making taffy in the snow.
Wellandport, Ont. KITTIE COHOE.

QUEEN ELIZABETH'S TIMES COMPARED WITH OUR OWN.

"A History of Our Own Times" was brought into the library and placed beside another volume entitled "The Reign of Queen Elizabeth." After looking at the new volume for a few moments, the old one said: "My young friend, will you kindly tell me something about what is going on in the world to-day. I have long desired to know, but have not been outside this house for years, and have never before had such a good chance to find out." "Certainly," the younger replied, "on one condition, that you tell your story first."

The elder at once began. "Elizabeth ruled the country on very arbitrary principles, showing that she considered herself above all laws, and could make or unmake them at her pleasure; but as she always chose good advisers, and tried to do everything for the good of the people, this did no harm, and her people loved her, and called her 'Good Queen Bess.' At the beginning of her reign, England was about the lowest among the nations, but at the end she had reached the very highest rank, and made great strides in wealth and prosperity. Seeing the interest other nations were taking in America, England began to do the same, and Sir Walter Raleigh started a colony in New England at his own expense. The Protestant religion gained a firm footing in the country, and there was much disputing between the Protestants and Catholics; but they loved their country equally well, for at the time of the Spanish Armada they forgot their quarrels, and all joined together in fitting out small ships to repel the attack. Paper mills were first established; brick was first used for building purposes, and the poor laws instituted during this reign. Glass windows became common

towards the end, while before that they were considered a luxury.

"People who travelled, either walked, rode, drove, or, where possible, went by boat during the early part of this reign; but towards the latter part, coaches were introduced, which travelled along the principal roads. Travellers always went well armed, as they were likely to be accosted by highwaymen. There were inns at different parts along the road, where travellers put up at night, got their meals, changed horses, or perhaps just stopped for a drink, as drunkenness was very common in those days. The inn-keeper always made them welcome as long as they paid their bill, and would feel very bad if he did not have on hand the particular kind of liquor they liked best.

"Among the great writers of this age were Shakespeare and Spencer, while Bacon was one of the great philosophers. Very few of the common people could read or write, and when the higher class wrote letters, they sent them by special messengers, who waited for an answer or not as they were instructed. The people were very superstitious; they believed that astrologers, by picking out some particular star as theirs, and watching its course in the heavens, could tell them of the future. They also believed in witchcraft, and put to death with great cruelty any who had powers they did not understand. People were put to death for the most petty offences, and prisoners were tortured with instruments such as the thumb-screw, pinchers and poking awl to make them confess; and often innocent persons would be so goaded by the pain as to call themselves guilty. If men quarrelled, they generally settled it by fighting a duel. The person who could kill the most enemies in battle, or go through the strangest adventures, was the hero of the people. Bull-fighting, cock-fighting, and other inhuman sports were practiced on Sunday, and attended by ladies of rank and fashion. When the citizens of London went out in the evening, they were attended by their servants, who carried lanterns and clubs to fight with in case of attack. Forks were unknown at the table, and meat was conveyed to the mouth with the fingers. Now, my young friend, I am ready to hear your story."

The younger replied: "I have been very much interested in your story, and hope you will be interested in mine. In your time, England was midway between the barbarism of the past and the refinements of the present day. The monarch of to-day does not have full authority, and has no power to make or unmake laws without the sanction of the people. The people are allowed to choose their own government, and the king must choose his advisers from these representatives of the people, and be guided by them; but a good deal depends on his tact, as a bad or impulsive king might still do the country much harm. Great Britain is now the greatest among the nations, and has colonies all over the world, the largest of them being our own Dominion of Canada. The sun never sets on her empire. The people are never set to practice their own religion, and the different sects are friendly with one another. They have a great fleet of ships, with men trained purposely to take care of them. These ships are run by steam, and do not have to wait for a favorable wind or else take to the oars as formerly. Where it before took them many weeks to cross the ocean, it now takes only a few days. Brick building is quite common, and now they are beginning to use cement blocks, but do not know yet whether they are durable.

"Travellers now go to a station at a set time, and when the train comes get on, and are at their destination in a few moments, where formerly it would have taken hours. There are always hotels at the stations or villages where travellers can put up. Drunkenness is not as common as it was, and many of the hotels keep no liquor, but the majority of them do. The people are awaking to the evil it does, and it is to be hoped will finally succeed in abolishing it. It is against the law to carry arms now, and there are few highwaymen. They even have carriages which do not require a horse, and go much faster. There are a nuisance on the road, and liable to scare horses out of their wits, and run over everything on the road, even to

people, if the driver is not careful. They are very expensive things, and I do not think will ever be common. To get a short cut from one waterway to another, or get past a waterfall, they have dug ditches big enough for large boats to pass through. They are trying to invent flying machines, but have not succeeded yet.

"If a person wishes to have a talk immediately with a friend, he goes to a telephone and has a chat over the wires. They have, also, an invention by which you can send a message without wires, and it has been successful so far.

"Shakespeare is still counted one of the greatest writers, and his plays are acted on the stage of to-day. We have many writers to-day, some of them famous; but literature is no longer the thing it was. There are many books in circulation that are not worth the paper on which they are printed. Newspapers are printed all over the country, so that people can know something of what is going on in the world. They have schools where the children can learn to read and write, and go through the different grades, until they are ready to go to the college, if they wish. They have a postal service, and all they have to do is to put a stamp on the letter and take it to the office, and those whose duty it is will send it to the one addressed. In the large cities, the streets are lighted by electricity, and the smaller place by lamps. They have electric cars in the cities and large towns. Murder and treason are now the only crimes for which offenders are put to death, and a person cannot be imprisoned without a good reason.

and I am sure if more young people wrote, we would have quite a jolly Corner. I saw, some time ago, that you wanted some of us to send in our names, if we would promise not to be cruel to animals. You may take my name, if you wish, for I do so hate to see dumb animals cruelly treated.

We have had a real nice winter here. We have also enjoyed most of the winter sports. I cannot skate; I tried it once last winter, but I fell down, and had a great time of it. I hope some more will write their experience with that awful pie crust.

Beamsville, Ont.

Advice to the Boys.

Dear Cousin Dorothy,—In direct contrast to that young lady who wrote last week, I am a boy, and the youngest of the family. It is hard to say which is the better place of the two, there being advantages in both. Being a boy, I do not have to deal with pie crust, except the eating of it. How many boys have ever helped their mother wash the supper dishes when their big sister was away? If you are situated as I am, with an older sister, remember, boys, that she has done more for you than you ever think, and it is your duty to try to do a few favors for her.

It is my idea that the older boys and girls are as much interested in this department as the younger ones; so, let us hear from some of you boys, and see what your idea of being at either end of the family is? Hoping this will escape the W-P-B.

W. A. N.

Wentworth Co., Ont.

that is really her own, life is too short to make it worth while to forfeit her self-respect for the sake of a very doubtful happiness. "This, above all, to thine own self be true." C. D.

Dear Cousin Dorothy,—I have taken the advantage of your invitation for more younger people to write. I am very much interested in your pleasant department, and read the letters every week. I was also very much interested in Fay's account of pie-crust making. I likewise have had the same experience, and found it came from having it too warm. I should have liked to have taken part in "The Times of Elizabeth as Compared with Our Own," but found out I could not make anything to suit me or the readers, so I had to be contented with reading other people's views.

MARY E. SKEOCH.

Corunna, Ont.

Current Events.

The Quebec local elections will be held on the 8th of June, the same date as those in Ontario.

Largely owing to the municipal ownership of waterworks, gas, electric-light systems, etc., the tax rate in Guelph this year is 14 mills, the lowest in Canada.

Mt. Etna is still active, and an extensive eruption is feared. Two streams of lava are pouring from a new crater, about 7,000 feet up the side of the mountain.

The Postmaster-General has given notice of a Government measure to reduce the rate from two cents to one cent on all drop letters in cities in which there is a postal delivery.

By the overwhelming vote of 167 to 46, following a lengthy debate, the United States House of Representatives went on record against the re-establishment of the canteen in national soldiers' homes.

The Right Rev. Chas. H. Brent, Bishop of the Philippines, has been elected Bishop of Washington, D. C., to succeed the late Bishop Scatterlee. Bishop Brent is a Canadian, and was born at Newcastle, Ont.

A plot to kill Lord Kitchener, Commander-in-Chief of the British forces in India, and other high officials, has been discovered and frustrated. A number of prominent Bengalese are implicated. Thirty arrests have been made, and more are expected to follow.

A general arbitration treaty between the United States and Japan has been signed at Washington, D. C., by Secretary Root and the Japanese Ambassador. It permits of the arbitration at The Hague of nearly every class of dispute which may arise between the two powers.

When the Quebec bridge over the St. Lawrence is rebuilt, it is expected that the site will be moved further up the river, where an arch of such tremendous proportions will not be required. This change in site will also necessitate a change in the surveyed route of the Grand Trunk Pacific in that section.

Arrangements have been completed for the visit to England of about 500 school teachers from Canada, and the same number from the United States, for the purpose of visiting English schools and inspecting the working of the English school system. The International Mercantile Co. will carry the teachers free of charge, with the exception of \$25, the cost of meals on the passage.



"Queen o' the May."

"Where, in your time, the great lords and land-owners had armed retainers to fight for them, there is now a standing army kept by the people. They are allowed to practice their own profession, except while drilling or in times of war. There is much more I could tell you, but I see the master coming for me. If we ever meet again, we will have another chat, and you can tell me more of what happened in your day, while I can doubtless tell you of more improvements which are taking place in the world."

EFFIE McINTYRE.

More About Pastry.

Dear Cousin Dorothy,—I saw Fay's letter in this paper, and it interested me so much that I thought I would write some on the same subject, if you will permit me.

I once made pie dough, when no one was around. I had never had any experience in making pastry for pies, except what I had seen my mother do. I just made dough enough for one pie; I didn't know the exact amount to use, but I took what I thought would be necessary. When I took my pie out of the oven it looked real nice, but it didn't taste so nice. The dough was hard as a board after it was baked. After my making it, it wasn't much I ate. I think this Corner quite interesting.

As an elder sister, I appreciate your remarks to the boys. I think you have a good head, and I hope you will write again.

C. D.

Would Rather Be an Old Maid.

Dear Cousin Dorothy,—I have been seriously thinking of writing to the Y. P. D. for a long time. When I saw the article in last week's "Advocate," headed "The Daughter's Portion," written by a reader from Waterloo County, I thought I would say something about it. When I read about the daughter marrying a man whom she did not love, it made me wonder if she ever had a man propose to her whom she did not love. Surely, she would not want to marry a man who did not love her, and it would just be as fair one way as the other. I would rather be an old maid one hundred years and live in a pigsty, than marry a man I did not love and live with him. That is putting it pretty strong, isn't it.

I am something like Fay. I never have very good luck when I make pies. I have been learning to make bread, and am getting along fairly well; I hope some day to be a first-class cook. Wishing the Y. P. D. success.

A FARMER'S LASS.

Peel County.

I think you are right. Though it is a sad thing for a woman to have no home

CROPS A FAILURE. CYCLONES IN THE SOUTH. TERRIBLE DISASTERS AT SEA. BLINDING SNOWSTORMS IN ENGLAND. SCANDALS IN HIGH LIFE. FINANCIAL PANIC THAT DISTURBS THE WHOLE WORLD. CRIME RAMPANT. SUICIDE ON THE INCREASE. INSANITY PREVALENT. IMMENSE LOSSES BY FIRES AND FAILURES. WARS AND RUMORS OF WAR.

The above are only a few of the many ways in which the attention of the public is called to the general news of the world to-day, but **SICKNESS, PAIN, SUFFERING, DEATH**, what of them? **THE PEOPLE CRY: WHAT SHALL WE DO? WHERE SHALL WE LOOK FOR HELP?** In answer, we say we know of your affliction, and hasten to inform you that **RELIEF IS AT HAND**, and it is your fault if you do not secure it at once.

Coon's Invention De Marvel and Coon's Wonder-Marvel Treatment **STOPS THE PAIN IN FIVE MINUTES** in many cases.

Relieves Suffering, Cures Deep-seated Disease, and Brings Relief to persons who have suffered from **RHEUMATISM, NEURALGIA, LUMBAGO, KIDNEY, LIVER and HEART DISEASE, BRONCHITIS, STIFF JOINTS, CONSTIPATION, INDIGESTION and CHRONIC DISEASES** generally, and who say they cannot praise it too highly.

Among others writing of Coon's Invention De Marvel and Wonder-Marvel Treatment, The Latest Great Discovery, we offer the following:

Mrs. Vetal Smart, of Bangor, Maine, who was suffering from catarrh, heart trouble and a complication of diseases, says: "I have only used it a short time, but I cannot praise it enough. It is all you claim for it. I cannot begin to tell you what relief your treatment has given me." N. B. Streeter, of Rochester, N. Y., a prominent business man and manufacturer, says: "I have been a chronic sufferer from what is called 'Crick in the Back' (LUMBAGO) for the past fifty years. Sometimes they come on so sudden that I can hardly get to my room without help. Recently I felt the trouble coming on, and your 'Invention De Marvel' was recommended to me. I only used it four or five times. I am all right. Many times I have had to have a doctor, and be laid up for ten days. I believe your Invention De Marvel will prove a great boon to suffering humanity."

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With the Flowers.

AMONG THE WILD FLOWERS.

Can you imagine anything more like fairyland than a grove filled with wild flowers on a fine May Morning? Yet there seems something sacred about it too. You go forth into it as to a benediction, and you do not wonder that a poet fancied the sweet lily-bells "ringing to church." As you walk along the woodland path, it seems to you the aisle of a cathedral, more beautiful than hands ever made; above you the gothic arches of the brown branches meet, and still beyond there is the roof of leaves, still crinkly in the freshness of their youth, and all green-gold where the morning sunlight strikes upon them.

There is no noise, nor any tumult; only a soft murmuring and a swaying everywhere which warns you that life is afoot; life mounting up the tree-trunks and thrilling out to the ends of the tiniest twigs; life in the springing grass; life, buoyant life, in the little squirrels that gambol from tree to tree, and in the birds carolling their love-songs near and far.

Life, too, dainty life, in the ferns that creep out from beneath the moss-clad logs, or nestle at the foot of the tall trees; and in the flowers besprinkled over every knoll and in every hollow.

Love you the flowers? Then be contented, for the most part, to look and love. As you love them, leave them, for the plant that you desecrate may be an annual to which plucking means annihilation. For this reason is it—this ruthless and thoughtless plucking by the hand and the armful—that our woods are now so often flowerless, bereft of the greatest charm they have ever known. And to what little purpose, for the flowers you carry home must in some sort disappoint you. They may wilt; and, at all events, you cannot bring with them their native setting. "You cannot bring home the woodland and sky" without which they, as well as the song-bird, are forlorn, and oftentimes pitiful.

Do you know the wild flowers? Can you call them by name as you would this favorite child or companion, or that? If not, you have not learned the whole interest which a May-day ramble may yield you. . . . What's in a name? That which we call a rose, by any other name would smell as sweet. Perhaps so; and yet, speaking from experience, I can say that I have found additional interest in knowing the names of even a few of the many thousands of wild flowers. And so I want to help you to recognize some of them in this way, too.

First, then, do you know the hepatica, or liver-leaf? I am sure you do, and that you love it perhaps most of all because it comes early in spring, almost before any of the others, have even shown their buds. In a sheltered nook, beside some tree or log, it usually grows, and you may readily know it, even before it

is in flower, by the woolly coating on its stems and on the scapes of the flower-buds crowding up in the center of the mass of three-lobed, mottled leaves, for all the world as though each little stem, knowing that the winter has scarcely gone and that the cold weather may turn back at any moment, had come up with a little woolly blanket around it. . . . When the flowers appear, each standing on its own leafless flower-stalk, you will find that they are pinkish-blue, or white, and that they have a most delightful fragrance, sweet and evasive as that of the English violet. . . . The hepatica, by the way, is one of the wild plants that will grow well in a favorable situation in your garden.

Close upon the time of blooming of this flower, come the spring beauty (claytonia), and the two species of dicentra. You may find the spring beauty in grassy glades of the woodland, yes, even out in the fields, close to its border, for this little plant, delicate as it is, is less shy than most of the other flowers, and loves to come out in the open air. Indeed, so fond of the sunshine is it that it invariably closes its petals in cloudy weather, and in the evening, as soon as the sun has gone, sleeping, as it were, until morning. . . . You may know this plant by its linear, very smooth, opposite green leaves, and its little pink flowers, veined with deeper pink, which grow in loose, terminal racemes at the end of the smooth, pinkish stem. Count the petals, and you will find there are five, slightly united at the base, and partly embraced, as it were, by two green, ovate sepals.



Dutchmen's Breeches.
(Dicentra cucullaria).

The two varieties of dicentra which grow in our woods are often indiscriminately known as "ladies-and-gentlemen," or "white hearts," although the more particular distinguish them as Dutchman's breeches (Dicentra cucullaria) and squirrel corn (Dicentra canadensis). The leaves of both of these are very finely divided, like green radiating fringe, and very beautiful, and the flowers, to the uninitiated, look much alike. If you examine them, even carelessly, however, you will find them easily marked by broad distinctions, viz., that the color of the Dutchmen's breeches is much whiter than that of the squirrel corn blossoms; that the former shows yellow at the head, the latter purplish; and that the one is more fragrant than the other. Moreover, at the root of the squirrel corn may be found the small yellow tubers resembling grains of corn, from which the plant has taken its name. . . . These plants also will flourish in the garden if given a favorable situation under trees.



Hepatica.

Trillium, or wake-robin,—no need to describe these, the so-called white and red "lilies" of the woods. There is also a third species which is more rare, the "painted trillium," which shows streaks and markings of pink. In all, however, there is the same curious arrangement of the parts of the plant in threes or sixes; the leaves, three in a whorl on the stem; the colored petals, three; the outer green leaflets or sepals, also three; the stamens with their slender golden anthers, six; and the pistil in the center of the flower with a three-cleft stigma. Long words, these, but examine a trillium as you read, and you may easily understand.

The "yellow lily" of the groves, too, do you not know it?—the "yellow adder's tongue" of the children, the



Red Wake-robin. (Trillium Erectum).

"dog's-tooth-violet" of the botanists—when they do not use a longer word (Erythronium Americanum). Why the name "violet" has been attached to this flower is a mystery; the designation "dog's tooth," which has some reference to the shape of the root, is scarcely more evident. "Yellow adder's tongue" is better, since it gives some clue to the color, while the smooth, blotched surface of the leaves might, in some sort, suggest the skin of a snake; but the idea is not pleasant, and it is not strange that such a nature-lover as John Burroughs should have suggested instead, "fawn lily" or "trout lily." It is hard, however, to change a name, and so "dog's-tooth violet" has become rooted, more strongly, perhaps, than the plant itself, which, year by year, becomes more rare, and in some places has become almost extinct.

The blood-root (Sanguinaria Canadensis) is another of the early flowers, and one of the most beautiful. You will find it in the deep glades of the wood, sometimes in fence-corners, where forest trees and shrubs have been left growing. At first, if you are not sure of the difference, you may confuse this plant with the wild mandrake, which belongs to an entirely different family, the barberry; whereas the blood-root is one of the poppies. Both plants have con-



Dog's-tooth Violet. (Erythronium Americanum).

spicuous light-green leaves and white, waxy flowers, and when growing present a sort of superficial resemblance. But a few minutes' examination, even of rough, easily-recognized distinctions, will soon show you the difference. In the first place, the leaves of the mandrake are umbrella-shaped, whereas the deeply-lobed (5 to 7 lobed) leaves of the blood-root are not. The flowers of the mandrake, too, grow on short stemlets (pedicels) springing from between the two leaf-stalks, whereas those of the blood-root appear on naked stems, or scapes, springing from the root. Then there are finer distinctions, briefly designated as follows. The blood-root has from 8 to 12 petals, numerous stamens, and but 2

sepals, which soon fall off, as, indeed, do those of the mandrake also; the mandrake has 6 to 9 petals, stamens usually double the number of petals, and 6 sepals. The blood-root, too, is scentless, while the mandrake has a rather disagreeable odor. There are other distinctions, but perhaps one more will be sufficient to notice; break the stem of the blood-root and you will find a bright red juice issuing from it, giving it a curious appearance of bleeding. This juice was at one time much used by the Indians for painting their faces.

We shall touch on but one more wild-flower to-day, the marsh marigold (Caltha palustris) of the swamps. You all know this flower—the "May-bud" of Shakespeare, the flower of which Tennyson's May-queen says, "And the wild marsh marigold shines like fire in swamps and hollows gray"—but, perhaps, many of you have been calling it "buttercup." Marsh marigolds are not buttercups, although they are their cousins, as both are members of the same family, Ranunculaceae or Crowfoot, the same to which the hepatica also belongs. . . . If you want to be very sure of the plant, however, examine it closely. You will find the flowers made up of from 5 to 9 petal-like sepals of a bright yellow. In the center of each flower are numerous little yellow stamens surrounding from 5 to 14 little green pistils. . . . Now turn to the other parts of the plant. You will find the stems smooth, hollow, erect, and branching at the top, and the large, smooth, green leaves somewhat kidney-shaped, the upper ones growing quite close to the stem. The leaves and young shoots, by the way, make excellent greens, which are in much favor among the country people of England.

I have not given you a very close botanical description of any of these flowers, it is true; but what of that? I have only been describing to you a few old friends, I trust, and helping you to call them by name when next you see them. M.

THE FLOWER AND VEGETABLE GARDEN.

Spring is here at last, and we must plan for our gardens. Everything seems to be putting on new life. How our house plants grow, and bloom, as the days get warm and sunny! Now is the time to start geranium slips for garden-blooming; they grow so rapidly, and bloom profusely outdoors. The double crimson and scarlet are especially pretty, bordered with white alyssum or candy-tuft.

The mixed shirley poppies are a new picture every morning. They can be scattered anywhere, and seem to blend with everything else.

Last year we had a great variety of dahlias, and, as the season was damp, I transplanted clusters of poppies among them. They bloomed long before the dahlias, and the pretty bright colors, among the dark green leaves of the larger plants, were very attractive. Then we had a pansy bed in a shady corner; a nasturtium rockery, asters, verbena, stock, balsams, and the never-to-be-forgotten sweet pea, besides our roses and perennials. They all went in a couple of borders, and a few small beds, but they were a joy to us all, and the admiration of everyone who saw them. Then, besides this, is the pleasure of giving a bouquet to our less-favored friends, who do not seem to have the time or taste for such work, but still enjoy them. How often may the sick-room be brightened by a little remembrance of this kind, or the sad home cheered by a suitable wreath as a last token of love and sympathy.

The flower garden is an education along right lines. How the children love it. Give them a bed to sow for themselves. How they will tend it, and watch its development, and, as we live in such companionship, we must get in closer touch with the "Great Painter of the Fruits and Flowers."

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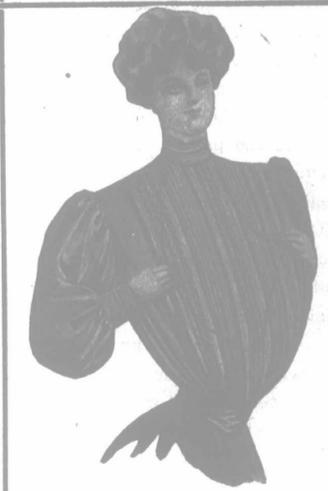
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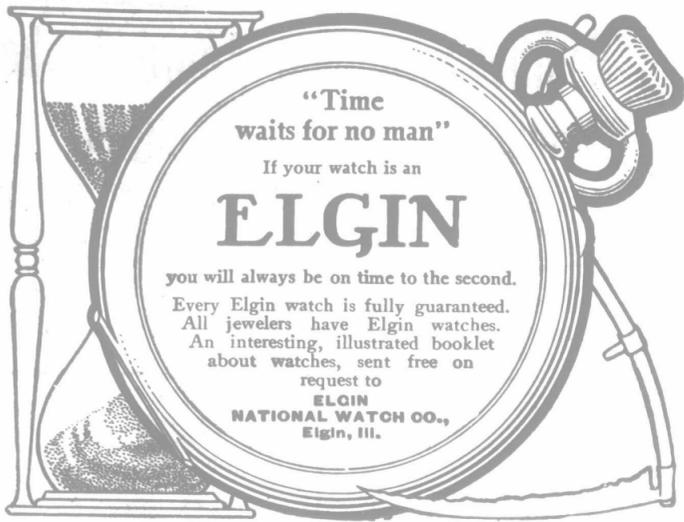


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POWER LOT A Story of "Down East."

BY SARAH McLEAN GREENE.

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CHAPTER V.—Continued.

"Why, of course, I shall call you Mister Hilton, and you call me Miss Thibault. It is pronounce' Tee-bo. It is French. My father is French, but me—I am American. I was born to Bear River."

"Bear River was very lucky to have you born to it," asserted Rob, now with genuine warmth. Then the monologue of his thoughts reasserted itself:

"Do you know of any way I could get over to Waldeck, Miss Tee-bo?"

Cuby shook her head. In the first place she did not want him to go; in the second place she was fully determined he never should go until he had seen her Sunday hat.

"My father is not a fisherman," she said, tossing her head. "He has no boat. My father has a team of two horses an' a very strong harness, cost him feefy dollar. My father's business is a haulin' wood. Cap'n Jim Turbine—he came to my father to hire him to meet the vessel when she come in, an' haul up you an' them trunks. My father, he would not do so—he like so much better, you see," said Cuby, with blushing apology, "to haul the wood."

She had been constantly drawing nearer to him, with the feminine compassion for, and authority over, a handsome young man in affliction. Now, she sat down on the boulder where the young boy had been.

"There—is—no—way?" said Rob slowly, his strained blue eyes looking out to sea.

"You look a' me, Mister Hilton," said Cuby, the bashful maiden no longer, but suddenly become a guide and monitress under the drift and levelling of circumstance. She shook a small brown finger at him. "You look a' me, an' mind what I say, everything."

Rob turned his wistful eyes to her appealingly.

"You don't like it very well there where you come to live, I don't blame you. Ma'y Sting'ree, she's a proud, stuck-up, hotty ol' Baptist, that's what she is."

"I guess you're right," said Rob, wonderingly; "what makes her a Baptist?"

"'Cause she sings so loud in the meet'n. Me—I go to meet'n, but I make myself very still an' very far back in the meet'n house. The meet'n house is a holy place," said Cuby, as if speaking by rote, her eyes downcast, her little hand stroking the blue skirt softly.

Rob was entranced.

"You could sing as loud as she if you tried, I bet," he said gracefully, "couldn't you?"

"Wa-a-al, by tam, I ain't sayin' nothin'," replied Cuby, with that utter colloquialism into which she sometimes sweetly and unconsciously relapsed. But her manner left the fact of her musical ability to remain undisputed.

Like a fretful child, Rob's mind again reverted to his woes:

"You don't know of any way, Cuby—dear—for me to get over to Waldeck?"

"Rober', no, I don't know any way, an' I think you make yourself a fool to not think o' nothin' but jus' tryin' to get back where you come from. Why don't you be sma-art—smarrt, Rober'?"

Robert gazed at her animated face in dismay, and made no reply.

"If I was you I would make the bluff—I would. I would show them how I was smarrt—smarrt!"

"You wouldn't have to make any bluff to show that," said Robert, at attention, for her radiant face was very bewitching.

"Me—I would show them. Now,

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his'n—they all lookin' to see you run away or make yourself a fool. I hear them talk, so I know what it is they think.

"I can't get any money farming, Cuby," said Rob, altogether despondent. "I don't know how. I, driving those horned beasts up and down that infernal precipice!

A cold little wind-reddened hand crept over and laid itself for the brief space of an instant on Rob's hand.

"Rober', it's hard for you losin' your fine 'ome what you had, an' all your big pile o' money. But now you min' me, an' all shall be well, I tell you; jus' you make the big bluff."

"Cuby," said Robert, detaining the small hand, and, to make sure of detaining it, he groaned again aloud, "I wish I was dead."

"There's a road—not so steep," said Cuby. "You seen where they loadin' the 'Leevya'?"

"Rock-weed to dress the land. See here, Cuby, I'm having enough to try me without you putting me up to any funny business.

"Me an' my father, we don't know nothin' 'bout farmin', neither; but I see them what they do. They haul up the rock-weed for to spread over the land, and, also, they haul up of the fish-gurry."

"Let them," said Rob; "it makes me sick to think of it. You don't suppose I'm going around accumulatin' that sort of fragrance on my person, do you? Why, my very boots would smell!"

"Aha!" cried Cuby through her laughter, shaking at him a finger sapient with agricultural lore, however accidentally acquired; "but you mus'." "If you make not the ground to smell, then you shall have no potatoes. Sure, 'Tis so. My father, he hauls wood an' burns the charcoal—he is no farmer, but I have seen them, what they do. They haul all that makes a rot," admitted Cuby, confidentially, and lifting her dainty nose in execration, "an' with it they make the stinkin' ground. Also, you mus' do so, an' you mus' not mind, for if you have not the stinkin' ground, then you shall have no potatoes."

Rob listened in astound and admiration. Her face was as fair as a flower, her teeth were as white as pure linen seven times washed.

"I think I shall take your advice," he considered aloud, "provided you will keep on advisin' me."

"Sure," said Cuby, competently, "I shall always tell you what to do next—and may be you will have good potatoes, an' then they shall not make fun at you."

"Will you show me how to get rock-weed and fish-gurry?" Rob soliloquized audibly, inclining ever to Cuby as the sole point of effulgence left in a cold and dreary world.

"Didn't I tell you, I shall tell you everything you shall do, so that they shall not make a laugh at you? But you—you mus' make the big bluff at

them—or it shall all be no good." She sighed.

"It won't make people talk unkindly about you?" said Rob.

"No, for I am good. Some is bad; about them is talk. But me—no, I am good. My father an' Cap'n Jim Turbine, they tam to hell anybody w'at talk about me," concluded Cuby with placid satisfaction.

"Good," said Rob, "you're all right. I wonder if I could find somebody to take charge of my character. Well, never mind. I think you are saving my life and reason. At what time will you be here to-morrow morning to meet me?"

"Nine o'clock. You got to 'ump yourself an' git a move on to make a farm."

"I'm used to sleeping late, but I don't care how soon I get out of that old Samantha-Tildy-Ann bed-quilt of a room of mine."

"Ma'y Sting'ree is a nice house-keeper," declared Cuby virtuously.

"She's an old hen of a school-teacher, that's what she is," replied Rob.

Cuby's heart leaped, and she adjudged it safe to experiment still further with the function of justice: "Ma'y Sting'ree is only twenty-five."

"She has lied about her age, then. She is forty, if she's a day."

Cuby ceased temporizing further in Mary's behalf, and laughed with a joyful sympathy she could not conceal. Rob seemed to her a beautiful young man. There was a cut to his clothes and a general air about him that was foreign and adorable. He had the blue eyes and the fair mustache of that hero in her favorite novel—the one who leaped to the ninth floor of the burning tenement and rescued "Alva," the factory girl, to whom he was secretly betrothed. This romance, Cuby adjudged by all means to be a work of art. Its precepts and its tragedies, of which there was no stint, abided with her. As for Mary Stingaree, Cuby admitted to herself she was a clever woman, learned and superior, and, to the keen instinct of one of her own sex, a dangerously alluring and fascinating woman.

So, when Cuby heard Rob's words, coupled with the frank distaste gleaming in his eyes and curling his lip, she laughed deliciously:

"Rober', you mus' not make the fun at her."

"I wish you lived up at Power Lot, Cuby."

"Oh, there is only a short road and the hill."

"It's the deuce of a hill, though."

"You forget me—what I tell you. There is a road not so steep. Now I mus' go 'ome. I should ask you to dinner, but I get no dinner until night. Then my father comes 'ome from a-choppin' an' haulin' the wood, an' I get then the dinner. I shall go," said she, rising promptly. "You also mus' go."

"Yes," Rob deplored, "I'll go. You are sure that you will be here when I come to-morrow?"

"May be so an' may be not," flaunted Cuby, pursuing the tantalizing methods of proud Alva of the tenements. "But, anyway, you shall come."

Rob gallantly took up the bucket of clams and the hoe. Cuby blushed with satisfaction at this approved and elegant consummation of the opening chapter of her romance, and walked unburdened at his side, her head held very erect, health palpably radiating from her as a perfect creation of nature.

"Is there anything like a shop anywhere around here," questioned Rob, "where a fellow could purchase a few cigarettes, I mean?"

(To be continued.)

I am glad to think I am not bound to make the world go round; But only to discover, and to do With cheerful heart, the work that God appoints.

—Jean Ingelow.

Superfluous Hair

Moles, Warts, Ruptured Veins, Etc.,



eradicated forever by our reliable method of Electrolysis, the only treatment that will permanently remove hair from the face, arms or hands.

Invited at office or by letter. Send or call for descriptive booklet "F."

Hiscott Dermatological Institute, DEPT. F. Est. 1892 61 College St., Toronto.

MORTGAGE SALE OF Percheron Stallions and Mares

Under and by virtue of the powers contained in a certain mortgage, which will be produced at the time of the sale, there will be offered for sale at public auction by D. Dickenson, auctioneer, at Lot 40, Con. 1, Huron Road, Tuckersmith (4 mile from Clinton), on Tuesday, May 26th, 1908, at one o'clock p. m., the following choice Percheron stock: Valventian (8893, A. H. B. A.), dark gray stallion, 6 years old; Colosse (4925, A. H. B. A.), black stallion, 1 year old; Prosper (5108, A. H. B. A.), black stallion, 2 years old; Madam Elmont (15990, F. D. H. A.), gray mare, 7 years old; Mamie (15989, F. D. H. A.), blue-roan mare; Christine (15993, F. D. H. A.), dapple gray mare, 6 years old; Lady Margotin (15988, F. D. H. A.), black mare, 1 year old; Loris Maid (4934), roan mare, 2 years old. The above animals are pedigreed and registered. At the same time and place will be offered 2 Polled Angus cows, 2 Polled Angus calves, and other stock, and a quantity of farm implements and machinery. All the above will be offered for sale subject to reserved bids. For particulars and terms of sale apply to

Macdonell & Boland, Barristers, 2 Toronto St., Toronto, or to W. Brydane, Barrister, Clinton.

May 5, 1908.

Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock.

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.

ELEVATOR AND FLOUR AND FEED.—We have for sale in a thriving town on the Grand Trunk, east of Toronto, an elevator, having a capacity of 30,000 bushels, fully equipped with gasoline engine, scales, etc., situated on the Grand Trunk property, subject to a lease charge of \$10 per annum, and in connection with this elevator business, having a flour and feed business in the town proper. This has suitable office, and large warehouse accommodation fully equipped with scales, scoops, etc., and is a well established business. We offer the whole for \$3,500. The business is a profitable one, and we can give satisfactory reasons for selling. Waddington & Grundy, 85 King St. East, Toronto.

VETERINARY SURGEONS.—We have a most excellent opportunity in hand for a Veterinary Surgeon open to practice, in the Town of North Toronto. The property has a large frontage on Yonge Street, and extends back a considerable distance, and on it there is a good eight-roomed roughcast house, with orchard, commodious blacksmith shop doing a large business, and a large building which would be suitable for an infirmary and stables. There is no veterinary surgeon in the district between Toronto and Thornhill. Reasonable terms of payment will be accepted. Waddington & Grundy, 85 King St. East, Toronto.

WANTED—Good draft horses, weighing upwards of thirty hundred per team. Give price and particulars to A. T. Fraser, Port Elmsley, Ont.

WANTED—Persons to grow mushrooms us at home. Waste space in cellar, garden or farm can be made to yield fifteen to twenty-five dollars per week. Send stamp for illustrated booklet and full particulars. Montreal Supply Co., Montreal.

GOSSIP. IRISH SHORTHORNS BRING GOOD PRICES.

At the auction sale of the Shorthorn cattle in connection with the Royal Dublin Society's annual show, at Ball's Bridge, the last week in April, good prices were realized, half a score of the young bulls bringing prices ranging from 100 guineas to 230 guineas; at least half a dozen being purchased for export to the Argentine, two numbers being taken at 230 guineas each by Mr. Dan McLennan for that trade. These were contributed by Mr. H. J. C. Toler-Aylward, and were named Diamond Prince and Diamond Lord.



"HIS MASTER'S VOICE"

GRAMOPHONE RECORDS

Exchanged Free.

If you are tired of certain records, or if you have any cracked or broken, or scratched records, they can be

EXCHANGED FREE.

Ask your nearest dealer about it, or write to us for "Exchange" circular and record catalogues.

THE BERLINER GRAMOPHONE CO. OF CANADA, LIMITED,
DEPT. F. A. MONTREAL, QUE.

GOSSIP.

LAST CALL FOR MCGUGAN'S DISPERSION SALE.

The clearing sale of Glenora Short-horns, on May 20th, will no doubt attract a large gathering of those interested in good cattle, and will undoubtedly be an opportunity to secure choicely-bred females of excellent individual merit, at moderate prices. The 45 head to be sold are of the most popular families—Marr Roan Ladys, Missies, Miss Ramsdens and Urys. Of the last-named family, there are several good ones, all grand milkers. Ury Lass is one of the most attractive in the sale, a beautiful, smooth red, with a three-months-old roan heifer calf at foot. Miss Ury 2nd is also a charming ten-months-old heifer, deep-bodied, smooth and large. There are a dozen females of the popular Miss Ramsden family, a family noted for their smoothness, easy-fleshing and deep-milking qualities. Lady Ramsden is a rare good one, by the old champion, Abbotsford =19446=. Her daughter, Lady Ramsden 2nd, is a beautiful three-year-old, of the most pleasing conformation. Rose Lady 2nd is an excellent breeder, by Abbotsford. Rose Lady 4th is another Miss Ramsden, very large, thick-fleshed, and smooth, a show-yard proposition. There are several other females of this well-known Scotch family good enough to suit anyone. The Marr Roan Ladys will, no doubt, attract the attention of discriminating breeders, because of their rich breeding and individual merit. The young cow, Canadian Roan Lady 3rd, is a choice cow, and a remarkably good breeder, as the four of her produce in the sale will clearly prove. Canadian Roan Lady 4th, Canadian Roan Lady 5th and Canadian Roan Lady 6th are three heifers, in calf, that would be hard to equal in any herd in the Province. Canadian Roan Lady 8th is a show heifer. A valuable breeding cow is Lady Hope of Ridgewood, a winner at Toronto and London, and proving a regular breeder of high-class stock. There are also three choice females of the Missie family. The bulls in this sale should be seen by those in need of one; several of them good enough to head any herd, and all likely to sell away below their value. Among the young bulls is Lord Hope, from the show cow, Lady Hope, an A1 young bull, strong, even-fleshed, and very smooth. Royal Tom has a Roan Lady dam, and is one of the kind that cannot fail to suit anyone, a dark roan, deep, smooth and even-fleshed, a remarkable handler, and an attractive bull every way. Count Ramsden is another

other of the good ones. Nonpareil Ramsden is a most promising ten-months-old calf, smooth and well-finished, a great doer, and sure to make a good bull. There are three other very useful and promising young bulls. The plum of the sale is the herd bull, Nonpareil Count =53215=, illustrated in this issue. Anyone that attends this sale will see in the young stock all the evidence necessary to prove that he is one of the few great sires of the Province. In color, quality of flesh and finish, his calves are uniformly right. He is a show bull himself. If fitted, would be hard to beat at the best fairs in the land; is just four years old; weighs 2,300 lbs.; is active, and very sure. There have been many good bulls, including champions, in this herd, but Mr. McGugan states unhesitatingly that Nonpareil Count is the best bull he ever owned. Anyone wanting an A1 sire of show-yard merit should see this bull.

SALE DATES CLAIMED.

May 20th.—A. D. McGugan, Rodney, Ont., Shorthorns.
June 5th.—John Dryden & Son, Brooklyn, Ont., Shorthorns.
June 11th.—Estate of Wm. Hendrie, Hamilton, Ont., Shorthorns.
June 23rd.—Richard Gibson, Delaware, Ont., dispersion sale of Shorthorns.

TRADE TOPIC.

CONCRETE SILOES AND BLOCK MACHINES.—That hundreds of siloes will be erected this season in many sections of Canada, particularly where dairying and stock-rearing are pursued, is a foregone conclusion. The most satisfactory silo is one of cement concrete, and it is permanent. Wooden ones rot out in a few years. The steel curbs or rings now manufactured by the London (Ont.) Concrete Machinery Co. solve the problem of construction. They have been in use for years. Several of them have been illustrated in "The Farmer's Advocate." Write the company, Reslan St., London, Ont., for particulars regarding the rings and in respect to the Little Giant concrete mixer, building-block machines, and other concrete apparatus. The illustration, published elsewhere, of the handsome public school at New Liskeard, Ont., will give an idea of the style of blocks made by their adjustable, face-down block machine, and the excellent structures that may be erected therewith.

QUESTIONS AND ANSWERS. Miscellaneous.

NESTS FOR SETTING HENS.

Should hens be set in a dry place, or in a damp place? Is it better to set eggs on the ground? W. G.

Ans.—While desirable to set hens on nests of hay or straw placed over earth, as, for instance, over a sod, or on a well-drained earth floor, it is advised to choose a dry location, especially in early spring. A damp place is unhealthy for the sitter.

FOWLS AILING.

I have had a disease in my flock of hens for about a year. They are first taken lame, and gradually get weaker, and linger for about two months, then die. They are loose in the bowels, and eat about the same for a while. Do not lose quite so many in the cold weather. A neighbor's flock has the same disease. A. G. S.

Ans.—From the meagre description it is hard to say what is the trouble. It may be a species of cholera. It may, also, be rheumatism. This would be the case if the fowl were kept in damp places, but it would be apt to show during the winter. If conditions are such as to cause the latter, remove conditions. Give fowl dose of Epsom salts in mash or drinking water, at rate of half teaspoonful to every bird. The following day give to drink in every quart of drinking water, 30 or 40 grains of baking soda. It would be advisable to thoroughly cleanse and disinfect.

POTATOES—QUANTITY OF SEED—MANURE.

1. How many seed potatoes will it take to plant an acre, in drills, and how far apart to plant?

2. What would you recommend as best fertilizer for the same? W. A. P.

Ans.—1. Potato drills should be not less than 30 inches in width, and to single sets, 12 to 14 inches apart. The quantity of seed required depends upon the size to which the seed is cut. About 15 bushels per acre used to be reckoned right, but experiments have shown that larger-cut seed gives better returns, and now 20 to 25 bushels per acre are recommended.

2. Barnyard manure is always in order, but if not obtainable, commercial fertilizers, containing a large percentage of potash (sulphate of potash should be chosen in preference to the muriate), give good results. There are special potato manures sold which are, no doubt, good, though the writer cannot speak from experience.

TRANSPLANTING APPLE TREES—BREACHY HORSES.

1. Please state, in the columns of your highly-appreciated paper, the proper way to transplant young apple trees that have not borne any fruit yet.

2. Could you inform me how to restrain a horse from jumping fences? H. McK.

Ans.—1. It is less of a shock to the tree, although a much harder and slower task to do such transplanting in winter. Whenever attempted, it resolves itself into a case of digging up and transplanting a considerable mass of earth, in which the main roots are imbedded, transferring on a stoneboat, and setting in a good-sized excavation prepared for its reception. All mutilated roots should be cut back with a sharp knife, as per directions on tree-planting given in "The Farmer's Advocate" of April 30th. The tops will then require pruning about twice as closely as the roots have been. Tramp the earth well about the roots right up to the surface, then rake two or three inches of fine loose earth over the whole to act as an earth mulch. Keep this loose until July at least. Of course, it is understood that the more earth there may be moved with the roots when transplanting, the greater the chances of success.

2. A poke, either homemade or purchased, will keep some horses on right side of the fence. For others, hobbling is effective. Buckling a strap about a fore fetlock, and tying a short halter shank to a ring on the strap is a plan that often works fairly well, though it seems rather a cruel method, particularly in fly time.

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 30 cents.

BUFF Orpingtons only. Choice quality. Eggs \$1 per 15. John Taylor, Jr., Galt.

BARGAIN—S. White Leghorns. Choice pen \$1.75 per thirty; \$5.50, 350. Write Ernest Flindall, Smithfield, Ont.

BLACH Orpington prizewinners, \$1.50 per 13; White Rocks, \$1 per 13. W. J. Rebstock, Ridgeway, Ont.

BUFF Orpington eggs from prizewinning stock. \$1 for 15. S. L. Anderson, Crossland, Ont.

BUFF Orpingtons—Splendid cockerels for sale. Also few pullets. Prices right. Eggs \$1 and \$2 per fifteen. Special prices for hundred lots. James McGregor, Ca'edonia.

BUFF ORPINGTONS—Pure-bred—Eggs, \$1 per 15. 9 chicks guaranteed. \$5 per 100. Extra heavy layers. Hugh A. Scott, Ca'edonia, Ont.

CLOVER Crest Farm Buff Orpingtons; pure bred, choice laying strain, \$1.00 per 15 eggs. Mrs. A. W. Ross, Douglas, Ont.

CLARK'S Buff Orpingtons 12 pens. Exhibition, egg strain and utility pens. National winners. Eggs from \$1.00 to \$5.00 per 15, 12 fertile eggs guaranteed. Incubator eggs a specialty, \$5.00 per 108. To raise birds for the fall shows get my eggs. Free mailing list. J. W. Clark, Cainsville Ont.

EGGS from excellent laying strain of Buff Orpingtons. Typical shape and good color. \$1 per 15. Edstar Staples, Bright, Ont.

EGGS from pure bred Barred Rocks, White Wyandottes (Martin and Wright strain). One dollar per fifteen. John R. Morgan, Wales, Ont.

FOR SALE, cheap, a pen of pure-bred Columbian Wyandottes Bred from prize stock. P. Crockett, 980 Richmond St., London, Ont.

GET eggs from prizewinners. My birds won over 350 firsts at eleven shows Barred and White Rocks, White and Silver-laced Wyandottes, Brown and White Leghorns, Silver and Black Hamburgs, Single and Rose combed R. I. Reds, Buff Orpingtons. \$1 per 15 eggs. Special making. A few eggs to spare from Black and Buff Orpingtons, Black Javas, Blue Andalusians, Barred and White Rocks, Black and Silver-spangled Hamburgs, Brown and White Leghorns, Single and Rose combed R. I. Reds, White and Silver-penciled and Silver-laced and Black Wyandottes, at \$2 per 15 eggs. F. W. Krouse, Guelph

INGLE NOOK Poultry Farm offers eggs from selected pairs of heavy laying strains—Brown and White Leghorns, Buff Orpingtons, B. Minorcas, and Barred Rocks \$1 per 13. White Leghorns only \$5 per hundred. W. H. Smith, 41 Spruce St., Toronto.

LOOK! Canada's champion exhibition and Lehigh champion strain Single-Comb White Leghorns. Send for free mating list, which gives complete winnings at Canada's leading shows, and prices of eggs at \$1.00 per 15 upward. Address Jas. L. McCormack, Brantford, Ont.

MOTTLED Ancona eggs, \$1.50 per 15; single-Comb White Leghorn eggs, \$1.00 per 15. \$4.50 per 100. Winter layers. Money makers both. All eggs now test 95% fertile. Cockerels and yearling hens one dollar each. Circulars free. E. C. Apps, Box 224, Brantford, Ont.

MY Barred Rock—237-egg-hen—is still Canadian champion. Send for circular. J. R. Henry, Waterdown.

MY Single-Comb White Leghorns for beauty and egg production are unsurpassed. \$1 per 15; \$2.50 per 10. Enos M. Bear, Pethany, Ont.

POULTRY and eggs for sale. Cedarvale White Wyandottes, bred from prize stock for quality, vigor and profit; large snow-white handsome, true Wyandotte shape. Persistent winter layers—the greatest laying strain known. Selected eggs from best matings. One dollar for fifteen. Good hatch, safe and prompt delivery guaranteed. A. J. Milton Bean, Box 385B, Toronto Junction, Ont.

RHODE Island Reds, rose comb. Bred nine years from carefully selected heavy winter layers. Large brown eggs. Dollar-half per fifteen. Good hatch guaranteed. Jno. Luscombe Merton, Ont.

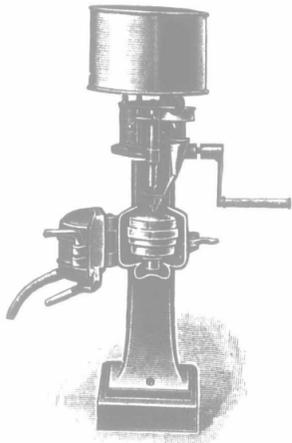
WHITE Wyandottes exclusively. Best general-purpose fowl. Strongly-fertilized eggs from heavy-laying Martin and Dutch strain. One dollar per fifteen. D. T. Green, Brantford

WHITE Plymouth Rock eggs for hatching. Good laying strain. Eggs one dollar per 15. J. R. Dods, Alton, Ont.

GOSSIP.

The cut of the imported Clydesdale stallion, Celtic Prince, appearing on another page in this issue, reproduced from a small snapshot photograph, does not give an adequate idea of his make-up, as he is a horse of good size, well-balanced and full of first-class quality, while his breeding is equal to the best, being a son of the champion Everlasting, a grandson of the sire of champions, Baron's Pride, and also of the champion Hiawatha, and a great-grandson of the great Prince of Wales (673). Celtic Prince was placed second in strong competition at the Western Fair, London, 1907.

"The Melotte Cream Separator"



Frictionless,
Self-balancing,
Self-emptying Bowl.

Turns easiest,
Skims cleanest,
Wears longest.

Don't delay buying---the Melotte will have earned half its cost before fall.

If you are not using a Melotte cream separator, the time to buy one is now. If you still adhere to the old-fashioned setting-pan method, or if you are using an inferior cream separator, you are losing cream, and this loss, which the Melotte would save, will before fall amount to more than the cost of a Melotte cream separator.

Perhaps you think you cannot afford it just now. We do not ask you to pay cash. We will make terms to suit you. We accept farmers' notes, and we carry them ourselves. And in the meantime the Melotte is paying for itself.

We offer you a free trial without asking you to sign anything, so that you can compare the Melotte with the other separators and be yourself the judge of its merits. Write for catalogue and full information.

R. A. LISTER & CO., LIMITED
66 Stewart Street, Toronto, Ont.

The Dunn Hollow Concrete Block Machine

Fourth year in the market, and every machine sold doing good work. Simple in construction and operation. Suitable for block-making for a single building or for a regular block-making business. A moderate priced machine; compact and portable. No power required. Has suited every purchaser, and will please you. Western shipments made from our Winnipeg warehouse.



Write us for catalogue.

Address Dept. O, THE JAS. STEWART MFG. CO., Ltd., Woodstock, Ont.

"Twentieth Century Dictionary."

A miracle of scholarship that will supersede all inexpensive works.

EVERY Canadian home should have this comprehensive and up-to-date book of words. Edited by Rev. Thos. Davidson, assistant editor Chambers' Encyclopædia. Replete with information for every user of the English language. Cloth bound, and copiously illustrated. Over 1,200 pages.

How to Secure a Copy of This Invaluable Work. Send us two new subscribers to "THE FARMER'S ADVOCATE AND HOME MAGAZINE," accompanied by \$3, and the Dictionary will be mailed you, post free.

WHEN WRITING ADVERTISERS, PLEASE MENTION THIS PAPER.

GOSSIP.

Mr. Geo. Rice, Tillsonburg, Ont., makes a change in his advertisement, in which he offers for sale a richly-bred and superior two-year-old Holstein bull, ready for immediate usefulness, at a price the average breeder can afford to pay.

A shipment of 112 grade Hereford steers were sold on the Chicago stock market the last week in April by Clay, Robinson & Co., commission salesmen, at \$7.25, the extreme top of the market by 10c. per cwt. These cattle were bred in Kansas. When put on feed in October, their average weight was 1,100 lbs., and when sold was 1,607 lbs., a gain of 507 lbs. per head in less than seven months, and their weight was against their sale, as lighter cattle sell more readily, but the statement tends to show that Herefords are fast feeders.

Mr. W. F. Stephen, Huntingdon, Que., writes: "My herd of Ayrshires have come through the winter in fine condition; thanks to a good full silo last fall. The demand has been good for young bulls, and I have already sold all on hand. I offer for sale Lessnessock Crown Prince (imp.)—19508—. He will be five years old in July, and has headed my herd for four years. He has left me some splendid young stock that have every appearance of being performers at the pail when they come to maturity. He has grown to be a massive fellow, low-set and well-developed. Is quiet and tractable. I expect to breed him to most of my early calvers before I dispose of him. Owing to having sold one of my farms last fall, I disposed of all my grade Ayrshires by auction last month, when they brought good prices. In the future, I purpose confining my breeding operations to registered Ayrshires, for which there is a growing demand all over the continent."

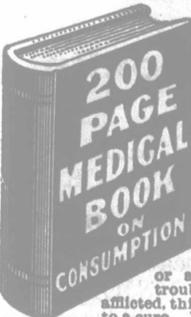
MAPLE SHADE SHORTHORNS BY AUCTION.

An occasion of exceptional importance to breeders of Shorthorn cattle on both sides of the line will be the disposal by auction of 40 females and two bulls, the cream of the far-famed Maple Shade herd, the property of Hon. John Dryden & Son, of Brooklyn, Ont., advertised to take place on Friday, June 5th. The Maple Shade herd was established forty-eight years ago, and has been in continual existence ever since, and having for years been strengthened by importations from the world-famed Sittytown herd of the late Amos Cruickshank, the herd has made a reputation for excellence and high-class character of individuality second to none on this continent. And, while the herd for nearly half a century has been in active competition with the best that could be brought against them, and in nearly every case returning with added laurels of honor, it is safe to say that never before were so many high-class animals found together in this great herd, and these are the ones that on June 5th will be sold by auction without reserve, as every animal offered will certainly be sold to the highest bidder. Nearly all the females are one- and two-year-old heifers, and all old enough will either be safe in calf or have calves at foot, representing in blood lines such fashionable tribes as the Bessie, Brawith Bud, Village, Lavender, Orange Blossom, Rosebud, Duchess of Gloster, Lady Eden, Nonpareil, Miss Ramsden and Scotch Thistles, a number of them being Toronto winners. The two bulls to be sold are high-class animals, put up on showing lines, and fit to head any herd. Fuller particulars of the breeding of the animals will appear in following issues of this paper. Of special interest to visitors from the United States will be the announcement that any animals sold to cross the lines will be recorded in the American herdbook and tested. The sale will be held at the farm, Maple Shade, one mile from Brooklyn Station (G. T. R.), and three miles from Myrtle Station (C. P. R.). Conveyances will meet morning trains at Myrtle (C. P. R.), and a special G. T. R. train will leave Toronto on Morning of sale, stopping within a quarter of a mile of the barn, and returning to Toronto same evening. Particulars of time of departure of this train from Toronto will appear later.

CHILD'S SEVERE BURNS HEALED BY ZAM-BUK.

The little girl of Mrs. Lewis Best, of Carlisle P. O., recently fell against the stove and burned her forehead very badly. Mrs. Best says: "The burn was about the size of a fifty-cent-piece, and was near the bone. It made my little girl's eye swell till it almost shut, and then she got cold in it. It began to run matter very badly, and I could not stop it, although I bathed it good every night and morning. At last I sent for some Zam-Buk, which soon stopped the matter, and very quickly healed the wound. I have never seen a burn heal so quickly, and I am sure Zam-Buk has no equal for curing cuts, or burns, and I shall always keep a box on hand in case of emergency." Every home needs Zam-Buk! All diseases of the skin quickly yield to it. It is also an excellent remedy for piles (blind or bleeding), rheumatism, etc. All druggists and stores, 50c. a box, or postpaid from the Zam-Buk Co., Toronto.

Consumption Book



FREE

This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of any one suffering from Consumption, Catarrh, Bronchitis, Asthma, or any throat or lung trouble, or are yourself afflicted, this book will help you to a cure. Even if you are in the advanced stage of the disease and feel there is no hope, this book will show you how others have cured themselves after all remedies they had tried failed, and they believed their case hopeless. Write at once to the Yonkerman Consumption Remedy Co., 606 Ross Street, Kalamazoo, Mich., and they will send you from their Canadian Depot the book and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Don't wait—write today. It may mean the saving of your life.

"Barker" Weeder and Mulcher

Does the Work of 5 Men with Hoes. It cuts weeds as a lawn mower cuts grass, and is just as easy to operate. It not only cuts the weeds above the ground but below the surface as well, thus destroying several crops at one mowing. It saves time, saves money, saves work—lasts a lifetime, and will do as much mulching and cultivating in an hour as a man with a hoe will do in five. Our catalogue of Wagon Racks, Root Cutters, Planters, Seed Drills, Cultivators, etc., sent free on application. Will give address of your nearest dealer.



THE EUREKA PLANTER CO. Limited Woodstock, Ont.

REGISTER YOUR GLYDESDALES

To be eligible for registration, a graded Clydesdale filly must have four crosses by Clydesdale sires recorded in Canada. Stallions require five crosses. It will save trouble and expense to attend to this matter early. For application forms, etc., apply to Accountant, National Livestock Records, Ottawa. President, John Bright, Myrtle St., Ont. Secretary-Treasurer, J. W. Sangster, Weekly Sun Office, 18 King St., W., Toronto.

Send \$1—Receive 5 wool remnants suitable for Boys' Knee Pants up to 11 years. Give age, and we will cut out pants free. Add 25c. for postage. N. Southcott & Co., 8 Coope Block, London, Canada.

SECURE ONE OF OUR PREMIUMS.

A Great Offering of Some of the Choicest SHORTHORNS Known in Canada.

Forty Selected Females and Four Extra Bulls FROM THE WORLD-FAMOUS MAPLE SHADE HERD

Owned By
**JONH DRYDEN
& SON,**
Brooklin, Ont.



To Be Sold
**BY AUCTION ON
JUNE 5TH,**
Next.

These cattle are the descendants of choice specimens, personally selected in Scotland from the great herd of AMOS CRUICKSHANK.

Choice individuals. Cruickshank pedigrees. Regular breeders.

The cattle will be sold, rain or shine, under canvas, at the farm, near Brooklin. A SPECIAL TRAIN will leave the UNION STATION, TORONTO, at 9.15 A. M., FRIDAY, JUNE 5TH, landing passengers at the farm. Returning will leave the farm at 4.15 P. M., reaching Toronto in time for trains west and north.

The catalogues are ready. Send for one.

GOSSIP.

CLYDESDALES AT KILMARNOCK.

At the annual spring show at Kilmarnock, Scotland, last month, prizes were, as usual, offered for Clydesdale colts, mares, fillies and geldings, and the competition was keen, there being a large entry in every section, except for yeld mares. The Scottish Farmer says: The unprecedented success of the Baron's Pride yearling colt, bred by Mr. John Cocker, Hill o' Petty, Fyvie, and owned by Messrs. A. & W. Montgomery, Kirkcudbright, was generally approved. He was awarded first in his class, the male championship, the Clydesdale Horse Society's medal as the best yearling or two-year-old of either sex, and the President's gold medal as the best Clydesdale of either sex on the ground. He was similarly successful at the Aberdeen Spring Show five weeks ago. His dam was a mare by the H. and A. S. champion, Prince Thomas (10262), and he is a very handsome, upstanding, well-ribbed colt, with the best of feet and legs, and very close movement. His limbs are planted right, and he never stands or moves wrong. Reserve to him for all open honors stood Mr. H. B. Marshall's very handsome, upstanding two-year-old filly, Sarcelle, bred by Mr. Anderson, Comisty, Huntly, and got by the champion sire, Everlasting (11331), also out of a mare by Prince Thomas. Sarcelle won first in her class and the female championship. Last year she was second at Kilmarnock, first at Glasgow, and third at the H. & A. S. Show, Edinburgh. She also won the Clydesdale Horse Society's medal at Glasgow, and other local prizes. She has developed wonderfully, and is now a big, sweet-boned filly, a nice close mover, and very good at the ground. In the case of the brood mares, there was a fine display. Mr. J. Ernest Kerr, of Harviestoun, was placed first with his celebrated champion, Pyrene, champion at Glasgow and the Royal in 1907, and Cawdor Cup champion in 1906. In a strong class of two-year-old colts, Mr. Kilpatrick's St. Clair, the winner at Glasgow Stallion Show, and got by Sir Humphrey, was put first. He had a strong opponent in Mr. Guild's Sam Black, by Baron O'Dee,

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174 Bay Street,

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Toronto, Ontario.

by Baron's Pride, which again stood second to him as at the earlier show. He is a thorough gentleman's horse, with size, style and quality to commend him. His feet and limbs are all a Clydesdale man wants, and in respect of beauty of outline and general levelness of merit he stands nearly, if not quite, alone.

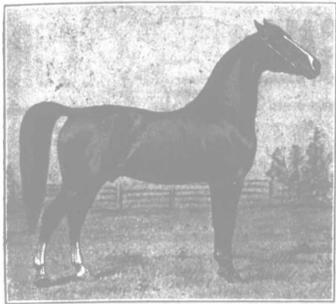
SPRINGFIELD SHORTHORNS AND OXFORD DOWN SHEEP.

Five miles from either Midland or Wyevale Stations (G. T. R.) is the splendid Springfield Stock Farm, the property of Messrs. C. Rankin's Sons, Wyebridge, Ont., the well-known importers and breeders of Shorthorn cattle and Oxford Down sheep. Totalling about 40 strong, the Shorthorn herd is one of the richest and most fashionably-bred herds in the country. Twelve of the breeding cows are imported, among them such grandly-bred ones as Deeside Girl (imp.), a Jilt, sired by Lord Methuen; Bloomer (imp.), a Kihlean Beauty, by Merry Mason; Diamond Bracelet (imp.), a Bracelet, by Arthur; Dalmeny Veronica 2nd (imp.), a Veronica, by Golden Gift; Princess 33rd (imp.), by True Scotch; Isabella 21st, by Famous Pride (imp.); Sunflower 9th (imp.), by Kitchener; Lovely 56th (imp.), by Cyprus; Lady Ella Hope (imp.), a Wimple, by Prince of the Vale; Marjory (imp.), a Begonia, by Livy, etc. Out of these cows are a number of one-, two- and three-year-old heifers, the got of Imp. Rosierucian of Dalmeny, Imp. Pride of Scotland, and the present stock bull, Imp. Ruby's Knight = 68968 =, by the Lancaster bull, Lochabar, dam Rubyhill 15th. These heifers are for sale, and with such excellent rich breeding are a very desirable lot. In young bulls, there are only two left at all near fit for service, one, ten months old, out of Imp. Princess 33rd, and by the stock bull; the other, eleven months old, out of Imp. Marjory, and by the stock bull. No fancy prices are asked for any of these youngsters—bulls or heifers. The flock of Oxford Down sheep are a grand good representative lot, well-fleshed, and well-covered. This year's crop of lambs are by an Arkell-bred ram, and will be for sale later on. Make a note of it.

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 P. S.—The above illustration is taken from an actual photograph.



LICE INFESTED HENS

One thing more than any other wrecks the hopes of thousands of poultry raisers—lice. A louse-infested hen is a tax—a drain on resources—a bit of property that represents loss. There's nothing in them but trouble and worry—don't keep one. It isn't necessary to be rid of hens because of lice however. Simply dust hens, roosts, nests and hidden cracks with

Instant Louse Killer

It destroys them completely. Instant Louse Killer was formulated by Dr. Hess (M.D., I.V.S.) and kills lice on horses, cattle ticks on sheep, cucumber, squash, cabbage worms and melon pests as well as rose slugs. It is also a reliable disinfectant and deodorizer. See that the word "Instant" appears on the can.

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PLEASE MENTION THIS PAPER.

QUESTIONS AND ANSWERS. Miscellaneous.

VINEGAR FROM MAPLE SAP.

A Nova Scotia subscriber writes: "In your issue of April 23rd I notice an enquiry re making vinegar out of maple sap. The way I do (and I find it works very well) is to take, say, five buckets of sap, and boil it down to about a gallon, as the sap itself is hardly sweet enough without adding some sugar; then add about three cups of yeast; bottle up, and let ferment, and you will have a very nice-flavored vinegar."
 D. D. McKENNY.

P. S.—I find this works well, but some of your subscribers may have a better recipe.
 D. D. M.

HEIFER BLOATING.

A yearling heifer bloats often, and sometimes the bloat disappears of its own accord, but she has had to be tapped a number of times. While not fat, she is in fairly good order, having good hay and all the oats she will eat. Have given her some pulped mangels also once a day. Clean cistern water before her all the time.
 I. B.

Ans.—Next time she shows signs of bloating give a pint of raw linseed oil, with two ounces (eight tablespoonfuls) spirits turpentine, and one tablespoonful of baking soda as a drench. If this fails to give relief, give 1 pound Epsom salts, 2 ounces spirits of nitre, and 2 tablespoonfuls of baking soda. Feed lightly afterwards for a few days, and give lukewarm water.

DIARRHEA IN CALF.

Please answer enquiry how to stop diarrhea in a calf. SUBSCRIBER.

Ans.—It is good practice, first, to give a dose of castor oil, two to four tablespoonfuls, according to age and size of calf, to clear out any irritation in the bowels, and, after purging, give a raw egg, broken in the mouth, letting the calf chew the shell, holding its head up with the hand for a minute or two. Feed lightly for two or three days, always warming its milk to blood heat, and adding about one-sixth of lime water to the milk. Take a lump of lime and slake it by throwing a little water on it, then pour water on to fill a pail; stir it; then let the lime settle. The clear liquid is lime water. Some stockmen have claimed that a cup of strong, black tea, given as a drench, will stop diarrhea in a calf. For a bad case, give two to four drams tincture of opium, two drams of catechu and three drams prepared chalk, every five or six hours until diarrhea ceases.

YEAST TREATMENT—CORN CULTURE—WATER SERVICE.

About a year ago I remember reading about yeast treatment for barren mares. Will you please republish it?

1. Is it the common Royal yeast cakes that we buy for 5 cents that is used, and how many? What kind of syringe is used? Would tin tube 1 1/4 or 1 1/2 inches by 12 inches, with taper end, and a plunger do? Could any intelligent farmer use it?

2. Not having enough manure for corn and roots, would it be profitable on clover sod from which seed was taken last fall, plowing in spring to put on fertilizer for roots? If so, what kind, and how much?

3. I have a cement water tank outside barn, 12 feet by 6 feet and 2 feet deep; bottom of tank about level with cow mangers, which are about 20 feet from tank. Would there be pressure enough to supply cows with water in drink basins, and what size pipe would be needed to supply 20 head of cattle?
 W. H. D.

Ans.—1. Yes. See answer to same questions, page 844, this issue.

2. Barn-yard manure spread on the sod before plowing, or if manure is short, spread on surface after plowing, and disked in, should give good results. Heavy manuring should not be necessary if land is in good heart, and after culture is well attended to.

3. Yes; the water would rise to its level in the tank, in which you would require float to regulate the flow to the drink basins, using a one-inch or three-quarter-inch feed pipe, with smaller leads into basins. Consult a skilled man for the putting in of these pipes.



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Bruce's Mammoth Intermediate, Smooth White Carrot.

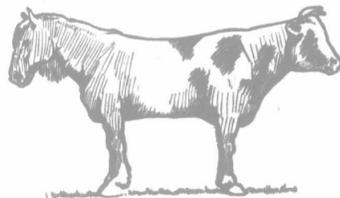
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- 6 Diarrhoea Draughts.
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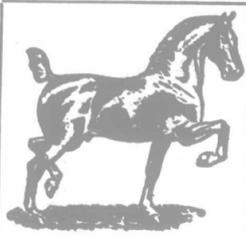
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QUESTIONS AND ANSWERS. Miscellaneous.

MARE LOSES FOAL.

A mare I bought this spring has lost her colt three times now. Would it be safe to breed her again, or is it a disease? What should I give her to prevent her from losing her colt?

E. H.

Ans.—It may be due to some constitutional weakness, and, if so, it would not be wise to breed her again; but as that cannot be decided with any certainty, another trial might be worth while, as the conditions of feeding management may not have been the best. Regular exercise during pregnancy is essential, light work being preferable. We would not breed her to foal earlier than May, nor to a horse having a very heavy season of service.

CRACKED HEELS.

Young horse (driver) has cracked heels; cracked open, and dry, and hard. He is in good condition, and his legs do not swell. What can I do to cure it?

SUBSCRIBER.

Ans.—Apply warm poultices of linseed meal, with a little powdered charcoal added, every six or seven hours for a couple of days; and, then, apply to cracks, three times daily, a lotion of one ounce each of sulphate of zinc and acetate of lead and two drams carbolic acid to a pint of water. Do not wash. It would be good practice to give a purgative ball of eight drams aloes and two drams ginger, following up with one and a half ounces Fowler's solution of arsenic twice daily for a week.

A CLOUDED TITLE.

A settled on a lot of free-grant land, and obtained his Government deed. He went away to British Columbia, but taxes were always paid. Some ten years ago he sold the lot to B, who has the two deeds (Government and transfer), but, on registering the same, finds a certain C has pretended he has a claim to said lot, and induced D to lend him \$200, and this mortgage is registered in 1894. B is living on the lot and improving it. What steps should he take to have the registry cancelled, as C never had the slightest claim, but was evidently making a false statement to D?

Ontario.

Ans.—B should bring an action against C, and D in it as a party defendant.

DISLOCATION OF PATELLA.

I have a colt, three years old, that got his stifle out. Put it in at the time. Was all right for about three weeks. I was advised to blister him, and did so, and left him another week. Went to take him out and he was lame; could not lift that foot the same as the other; seemed to trail his toe. Veterinary said it was not out, but was working on edge of bone, and he told me to blister him, and keep quiet for two months, and the colt would be all right. He stands on it all the time. Would not know anything wrong with him till he goes to walk. How should I treat him, and will he get better?

A SUBSCRIBER.

Ans.—The treatment advised and carried out has been correct, and time will probably complete the cure. It would be well to keep him quiet and not turn him out with other horses for some time, and, if necessary, repeat the blistering.

HENS NOT LAYING.

I have some hens which have laid hardly any eggs this winter. They are strong and healthy, and are fed well. Would you please give cause or something that is good to make them lay? I wish to have this answered in the "Veterinary" column.

Ans.—Our "Veterinary" editor makes no pretensions to poultry wisdom. Neither could the most expert poultrymen accurately diagnose a case so meagrely stated. Breed, strain and individuality, especially the latter, play a very important part in egg-production. Variety of food is another consideration; while exercise is necessary for best results. Many fowls suffer in winter for lack of grit. A chicken without grit is like a horse without teeth. Lime for shell-making is also important. A reflective study of our poultry columns will doubtless reveal one or more points of weakness in feeding and management.

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From the famous breeding farms of

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Sixty head have been sold by me in Ontario alone during the past year. The quality of the stock may be judged from the fact that while we have nothing forced for exhibition purposes these horses won in the show-rings at the Ontario Horse Breeders' Association, Toronto; The Western Fair, London; The St. Thomas Horse Show, and other places. A fresh consignment of mares and fillies in foal, and stallions ready for service, among them several handsome two-year-olds, will be ready for inspection and sale at my barns, St. Thomas, Ont., about April 10th. We show the goods, and sell at reasonable prices. Our terms are reasonable. Correspondence solicited.
C. K. GEARY, St. Thomas, Ont., Agent for Canada and the United States.

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IMPORTED GLYDESDALES Up to over a ton in weight, with the very richest of breeding and the best of quality. I think no better shipment of stallions ever left Scotland. I have also nine fillies, without doubt the best lot in Canada. All will be sold cheap and on terms to suit. Long-distance 'phone.
GEO. G. STEWART, HOWICK, QUE.

2 IMPORTED GLYDESDALE FILLIES
Bred by Prince Alexander and Macgregor's champion, recorded in Clydesdale Stud-book of Canada. Terms and prices reasonable.
Robt. McEwen, Byron, Ont. London Ry. Station.

Imp. Clydesdales (Stallions and Fillies), Hackneys, Welsh Ponies.
I have now on hand Clydesdale stallions and fillies—Scotland prizewinners and champions; Hackney fillies and Hackney ponies; also Welsh ponies. There are no better animals, nor no better bred ones, than I can show. Will be sold cheap and on favorable terms. **A. AITCHISON, QUELPH, ONT., P. O. & STATION.**

SIMCOE LODGE GLYDESDALES
Our stable of imported and Canadian-bred Clydesdale stallions and fillies was never so strong in show stuff as now, although we have had some very strong lots. Call and see what we have before buying elsewhere. **HODGKINSON & TISDALE, BEAVERTON, ONT., G. T. & O. N. R. Long-distance 'phone.**

OAK PARK STOCK FARM HACKNEYS!
Four imported and home-bred stallions for sale. Ten imported and home-bred mares for sale. Among these are prizewinners at Toronto, Chicago and New York. Prices reasonable. Visitors always welcome to inspect stock. **JAS. J. BROWN, Manager, BRANTFORD, ONT.**

Clydesdales
Imported and Canadian-bred. Imp. brood mares a specialty. Celebrated Clydesdale sire, Acme (Imp.), at head of stud. Will stand in his own stable for mares at \$20 this season. Long-distance 'phone.
R. M. HOLTBY, Station and P. O. Manchester, Ont., G. T. R. Myrtle, Ont., C. P. R.

25 Imported Clydesdale Stallions and Fillies 25
Two Clyde stallions, 1 Hackney stallion, over 20 Clyde mares and fillies, from 1 to 5 years of age. Many high-class show animals among this lot. Many winners in years ago. Many high-class show animals among this lot. Many winners in years ago. Many high-class show animals among this lot. Many winners in years ago.
GEO. A. BROSIE, Bothasda, Ont., P. O., Southville and Corralby Stations and see them.

Imported Clydesdales
I have still on hand 1 stallion, black, rising 4, by Carthusian, a Toronto winner; 1 rising 2 yrs., by Baron's Pride; rising 2 yrs., by Danure Castle; 4 fillies, a Toronto first and second prizewinner among them. Every one of these is an extra good animal, and the price and terms are right.
T. D. Elliott, Bolton, Ont.

QUESTIONS AND ANSWERS.

Miscellaneous.

LICE ON COLT.

I noticed the hair coming off of my colt, and on examination found lice on these spots where the hair was off, and, also, there was a scab. Please tell me what will take the lice off of him.

W. B.

Ans.—It would be well to have the colt clipped, as treatment would then be more effective. We would recommend washing him thoroughly with warm, soft water and soap. Then wash with a solution of corrosive sublimate, 30 grains to a quart of warm water, and repeat the application of the sublimate solution daily for three or four days on the scabs, as the indications are those of eczema as well as lice.

BINDWEED.

I have a patch of bindweed in my orchard. When I first noticed it, I dug it up; shook the roots clean, and left in the sun to wither. It sprouted up from roots left in the ground. I then covered the patch with two feet of straw well-tramped down. It came up as thick as ever. On top of the straw, I put manure a foot deep, well-tramped down. It sprung up as rank as ever. I removed the manure and straw, and hoed it the depth of the hoe. It came up as vigorous as ever. I dissolved one pound of Paris green and four pounds blue vitriol in six gallons of water and sprayed thoroughly without any beneficial results. Can you tell me what to do to eradicate the bindweed from my land?

G. H. N.

Ans.—Bindweed has a very deep-ranging root-system, which permeates the whole surface soil. It is extremely hardy, and can be exterminated only by a prolonged and very thorough system of cultivation, designed to starve the plants by preventing them from throwing up any tops to elaborate additional plant food. Beginning early in spring, cultivate every five or six days with disk harrow or broad-share cultivator, and continue to the end. Do it often enough to prevent the plants from getting any green leaves above the ground. This will surely starve it out in time. The process at first will be discouraging, and more inclined to stimulate than to overcome the weed; but, about August, perseverance will begin to be rewarded by a perceptible thinning and weakening; and if the first season of such fallowing does not finish it, the second will.

ALFALFA SILAGE.

I am pleased to be a member of "The Farmer's Advocate" family, and am always glad to get the weekly visitor. I saw in April 16th issue, page 698, a report of the Kansas Experimental Station re alfalfa silage. Could it be possible to have this discussed in "The Farmer's Advocate," as it is perhaps a very important matter? What would the feeding qualities be? Would they be much the same as in hay, or would the protein be less? Would it be as well a balanced ration to mix with corn silage as if it cured for hay? Could the knowledge of the professor be obtainable on this subject?

A. M.

Ans.—Comparatively little work has been done with alfalfa ensilage, although the idea is not a new one by any means. On page 395 of "The Farmer's Advocate," for March 5th, 1908, J. H. Grisdale, agriculturist of the Central Experimental Farm, Ottawa, told, briefly, the results of experiments with alfalfa silage there. It appears they have obtained best results when alfalfa constituted about one-half the bulk of the mixture, the other half being corn or clover, or a mixture of common clover and timothy. While the digestible protein content of alfalfa ensiled is probably somewhat less than in good hay made from an equal quantity of green alfalfa, yet the siloing process leaves a sufficient proportion of protein to render alfalfa silage a first-class complement of corn silage. The principal objection is the acid. It is not wise to feed cattle wholly on silage of any kind or kinds. Hence, it is usually better, when weather permits, to cure the alfalfa into hay, and ensile only the corn. In the absence of sufficient corn to fill the silo, we should not hesitate to try alfalfa.

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lamenesses from Spavin, Kingbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address
The Lawrence-Williams Co., Toronto, Ont.

You Can't Cut Out

A ROG SPAVIN or THOROUGHPIN, but

ABSORBINE



will clean them off, and you work the horse same time. Does not blister or remove the hair. Will tell you more if you write. \$2.50 per bottle, delivered. Book \$5 free.

ABSORBINE, JR. for manking, \$1.00 bottle. Cures Varicose Veins, Varicocle, Hydrocele, Ruptured Muscles or Ligaments, Enlarged Glands, Allays Pain. Genuine mfd. only by
W. F. YOUNG, P. D. F., 73 Monmouth St., Springfield, Mass
Canadian Agents: **L. H. SONS & CO., Montreal.**

GLYDESDALES

One 1750-lb. 8-year-old mare in foal. One 5-year-old mare and one 3-year-old mare.

SHORTHORNS

Two right good yearling bulls left yet, and a lot of heifers cheap. Write, or come and see them.

JAMES McARTHUR, Gobles, Ontario.

Dr. Bell's Veterinary Medical Wonder

cures inflammation of lungs, bowels and kidneys. The 20th-century wonder. Agents wanted in every county. Write for terms.
DR. BELL, V. S., KINGSTON, ONT.

Brown Swiss Cattle

FRENCH-CANADIAN HORSES.

We are offering for sale cattle of both sexes and almost any age; the greatest dual-purpose breed alive. Horses of all ages. Stallions, mares and fillies. The best stud in Quebec. Write us for prices. We represent exactly as the animal is.
C. E. STANDISH, Ayer's Cliff P. O., Trebarthe Farm, Quebec.

Sunnyside Herofords

Present offering: Twenty good breeding cows, yearling heifers, good sappy heifer calves; also some very promising bull calves, the get of Onward and Protector and. In car lots or singly. Come and see them, or write and state what you want. Satisfaction guaranteed. **ARTHUR F. O'NEIL, Maple Grove, Ont., Middlesex Co.**

Herefords

We have some choice females for sale—all ages—of the right sort; also a few young bulls fit for service. Correspond with us. We can please you. **J. A. LOYBRING, Coldwater, Ont., P. O. and Station.**

ABERDEEN - ANGUS

For sale, 50 head to pick from, males or females by imported sire. Drumbo station.
WALTER HALL, Washington, Ontario.

Aberdeen - Angus Bulls!

Two nice young Aberdeen-Angus bulls for sale at a bargain; also females.
J. W. BURT, Coningsby, Ont. Erin station, C. P. R.

Aberdeen- SUFFOLK DOWN

ANGUS SHEEP. If you require either of these breeds, write:
James Bowman, Elm Park, Guelph Ont.

Aberdeen-Angus bulls, 15 to 17 months; cows in calf or with calf at foot; heifers all ages. If you want anything in this line, write **JAMES SHARP, Tweedhill, Rockside, Ont.**
Cheltenham Sta., C. P. R. and G. T. R.

SUFFERING WOMEN

who find life a burden, can have health and strength restored by the use of

Milburn's Heart and Nerve Pills.

The present generation of women and girls have more than their share of misery. With come it is nervousness and palpitation, with others weak, dizzy and fainting spells, while with others there is a general collapse of the system. Milburn's Heart and Nerve Pills tone up the nerves, strengthen the heart and make it beat strong and regular, create new red blood corpuscles, and impart that sense of buoyancy to the spirits that is the result of renewed mental and physical vigor.

Mrs. D. O. Donoghue, Orillia, Ont., writes: "For over a year I was troubled with nervousness and heart trouble. I decided to give Milburn's Heart and Nerve Pills a trial, and after using five boxes I found I was completely cured. I always recommend them to my friends."

Price 50 cents per box or three boxes for \$1.25, all dealers or The T. Milburn Co., Limited Toronto, Ont.

SUNNYSIDE STOCK FARM



Bulls in service: Queenston Archer - 48988 - Trout Creek Stamp - 67660 - A number of first-class young bulls, red and roan, and a few cows and heifers, for sale. Prices right. **JAMES GIBB, Brookdale, Ont.**

SHORTHORNS

Choice heifers one and two years old, some from imported sires and dams, and now in calf to Good Morning, imported, our present stock bull.

Scott Bros., Highgate, Ont.

M. C. Ry. and P. M. Ry.

Brownlee Shorthorns - Very heavy milkers; stock bull and breeding cows all descendants of Imp. Beauty, by Snowball. No be-er dairy-bred Shorthorns in Canada, and few better individuals. For sale: Seven bulls from 6 to 19 months of age, six heifers from 6 months to 2 years. **D. BROWN, Ayr P.O. and Sta., Ont.**

Atheistane Shorthorns!

Three choice bulls from 9 to 19 months and heifers from 1 to 3 years; low-down, thick fleshed sort, of families: Rosewood, Butterfly, Rosaling, and Countess, and mostly sired by the Bruce Mayflower bull, Star Prince - 53900 - Prices very reasonable. **WM. WALDIE, Box 324, Stratford, Ont.**

GREENOCK'S SHORTHORNS. - Imp. Proctor heads the herd. For sale: 6 bulls from 8 to 17 months, by imp. sires. Three of them out of imp. dams. Will be sold at easy prices. Write or come and see them. **JOHN McFARLANE, Dutton P.O., Ont. P.M. and M.C. Railroads.**

Shorthorns and Leicesters! In Shorthorns, a few females, different ages, of good milking family. Half dozen shearing Leicester ewes. **John Lishman, Wagersville, Ontario.**

FOR SALE: 4 Shorthorn Bulls fit for service. Dairy type. Some of them from imp. cows, and all got by Broadhooks Prince (imp.) 55003. Prices the lowest. Also cows or heifers. 60 head to select from. **DAVID MILNE, ETHEL, ONT.**

"Mamma, what are twins?" asked little Bobby.
"Oh, I know," chimed in Dorothy, with all the superiority of an elder sister; "twins is two babies just the same age; three is triplets, four is quadrupeds, and five is centipedes."

Black Watch A new sensation. A real pleasure. The big black plug.
Chewing Tobacco
2270

QUESTIONS AND ANSWERS. Miscellaneous.

DISSOLVING BLUESTONE.

In preparing Bordeaux solution should the bluestone be dissolved in cold or in hot water, or does it make any difference?
E. H. M.

Ans.—Hot water facilitates the operation, and the resulting solution is in every way as good as though cold water had been used to dissolve the bluestone.

GOITRE IN LAMBS.

Can you give the cause and a remedy for lambs being born with a swelling in the throat? They live only a day or two, and are soft and flabby.

Ans.—This is goitre or enlargement of the thyroid glands, which generally ends in death of the lambs afflicted, unless the swelling is detected within a day or two after birth, and the growth dissipated by the application of tincture of iodine on the swollen parts, which is generally effective, provided the wool is closely shorn or shaven, so the iodine is applied as a paint on the naked skin, over and a little beyond the swelling. It is believed to be partly due to lack of exercise of the ewes while carrying their lambs, and often to too liberal feeding of the ewes with roots. We have never known it to appear where ewes are fed dry food and have a roomy yard to run in.

DRIED-BEET PULP.

Enclosed you will find a sample of beet meal; sold at about the same price as shorts. I would like to have your opinion as to its feeding value. How does it compare with shorts or bran? I have written to you before for advice, and I was well pleased with your answer.
D. A. McK.

Ans.—Without analyzing the sample submitted, we may quote the results of some analyses that have been made by Frank T. Shutt, Chemist, Central Experimental Farm, Ottawa, showing percentages of protein and fat:

	Moisture.	Protein.	Fat.
Beet-root feed	4.89	9.48	1.39
Bran	11.07	14.52	4.37
Shorts	10.34	15.93	5.24

According to these figures of composition, dried-beet pulp falls quite a way short of millfeed, although its feeding value is very considerable, and some who have used it have spoken well of dried-beet pulp as a food for dairy cows. We should like to hear from more who have used it.

ALFALFA IN NOVA SCOTIA.

I have been reading, with interest, the letters published in "The Farmer's Advocate," from time to time, giving the experience of many farmers on the growing of alfalfa, and would like to ask if any farmers in the Province of Nova Scotia or P. E. Island have made a success of the growing of this crop? I am of the opinion, from my own observations, that our winter is hard on it. I seeded one acre last spring with wheat (1½ bushels per acre) as a nurse crop, and, after looking over the field the other day, have decided to plow it up. I will try a small patch this spring, but will sow nothing but alfalfa, and would like to know just the best way to care for the crop the first season. Judging from the experience of those who have tried it in Ontario, I think it well worth a repeated trial in Nova Scotia.

Colchester Co., N. S. R. M.
Ans.—Let us hear from Eastern readers who have tried alfalfa. From our understanding of Maritime conditions, and of the peculiar requirements of alfalfa, we should be inclined to advise (1) inoculation of the seed with nitro-culture; (2) sweetening the soil by liming and increasing its potash content by either a load or two of unleached wood ashes per acre, or a corresponding dressing of muriate of potash; (3) sowing in late May or June on a clean, well-prepared seed-bed, preferably after a root crop on dry, rolling land, 25 pounds of first-class seed per acre, either alone or with a light nurse crop of a bushel of barley per acre. Clip the alfalfa in midsummer with the cutter-bar set high. This prevents weeds from seeding, and arrests a tendency to blight that often shows itself the first year. Try to clip in time to allow a good growth to come on before winter. Do not pasture.

DON'T STOP to ask your neighbors. Lift the load yourself with **THE BURR SELF-LOCKING TACKLE BLOCK.**
Can be used in any position and lock securely. The heavier the load, the tighter it locks. Never destroys the rope in locking. For butchering, stretching wire fences, lifting wagon-boxes, sick or injured animals, etc., it is indispensable to farmers. Saves labor of two or three men. 600 to 5000 pounds capacity. Ask dealers or write **LEWIS BROS., Ltd., Montreal, Can.**

CEBARDALE SHORTHORNS
Owing to scarcity of feed, am offering at specially low figures for quick sale: 17 heifers, one to three years old. 4 young bulls from six months to one year old. 16 cows, in calf or with calf at foot. Both beef and deep-milking strains. **T. S. Sproule, M.P., Markdale, Ont.**

Hawthorn Herd of Deep - milking SHORTHORNS
6 YOUNG BULLS, by Aberdeen Hero, Imp. - 98940 - Also females all ages. **Wm. Grainger & Son, LONDESBORO P. O. Ont.**

CONSIGNMENTS SOLICITED. WRITE FOR PRICES. AGENTS WANTED TO BUY; GOOD COMMISSION.
CALFSKINS
E. T. CARTER & CO., TORONTO, ONT. FURS & HIDES

Maple Home Shorthorns!
Our present offering is several very choice and richly bred one and two year old heifers, and three yearling bulls. Away above the average. Pure Scotch and Scotch topped.
A. D. SCHMIDT & SONS, Elmira, Ont.

J. & W. Russell, Richmond Hill, Ont.
are now offering very cheap, for quick sale, 8 yearling bulls, bred from their winning strains of world-renowned Shorthorns. Also about 30 heifers. First come, first choice. Electric Cars from Toronto pass the gate every 2 hours.

LIVINGSTON'S OIL CAKE MEAL.
OLD PROCESS
Nothing is better for fattening steers quickly and putting them on the market in prime condition than Oil Cake Meal. Thousands of Canadian and English stockmen use Livingston's, and would have no other. It is equally good for milk cows. They give more and better milk when fed Livingston's Oil Cake Meal. Also used for horses, sheep and hogs. Write for information regarding prices, etc., to **DOMINION LINSEED OIL CO., LIMITED, Montreal, Que. Baden, Ont.**

SPRING VALLEY SHORTHORNS
We still have three choice young bulls that will be sold very reasonable, as we do not care to run them over; also a choice lot of cows and heifers, bred to the champion, Clipper Chief, imp. **KYLE BROS., AYR, ONTARIO.**

R. H. REID,
Clover Lea Stock Farm, PINE RIVER, ONT.,
BREEDER OF SHORTHORN CATTLE Golden Cross (imp.) at head of herd.

5 Imported Shorthorn Bulls 10 HOME-BRED
Herd headed by the grand champion, Prime Favorite, imp. You cannot afford to buy without seeing these bulls. We will appreciate a visit. Females of all ages and most popular lines of breeding. Bell telephone on each farm. Burlington Jct. Stn., G. T. R. **W. G. Pettit & Sons, Freeman, Ont.**

SHORTHORN BULLS For Sale.
At the dispersion of the "Thistle Ha" herd in Jan., 1905, I purchased a few of the best breeding cows. From these cows I now have 6 extra good young bulls for sale. For pedigrees and other particulars apply to **JOHN MILLER, Brougham, Ont. Claremont Sta., C. P. R.**

The Salem Stock Farm SHORTHORNS
A SPECIALTY. WRITE FOR ANY INFORMATION.
J. A. Watt, Elora, Ont. G. T. R. AND C. P. R.

We are offering a very superior lot of **SHORTHORN Home-bred Bulls** of the best breeding and quality at attractive prices for the buyer. To see them is all that is necessary. Try to do so if you are in the market. It will pay you. **JNO. CLANCY, Manager. H. CARGILL & SON, Cargill, Ont.**

TWO IMPORTED BULLS
Direct from Aberdeenshire, Scotland, of excellent quality, color and breeding, two from imp. sire and dam, and others sired by Joy of Morning (Imp.) - 33070 - Prices in Shorthorns and Yorkshires will interest intending purchasers. **GEO. D. FLEICHER, Binkham P.O., Ont. Erin Stn., C. P. R.**

Maple Grove SHORTHORNS.
6 bulls and 2 heifers for sale. Bred from imp. and home-bred stock. A number of young cows safe in calf. Present stock bull, Starry Morning. **G. D. WAGAR, Enterprise, Ont. Stn. & P. O.**

Lump Jaw



The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable, bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists,
75 Church Street, Toronto, Ontario

Lakeview Holsteins!

Herd headed by Count Hengerveld Payne 2nd, 96-30 lbs. butter in 7 days, is dam of world's champion 4-year-old butter cow. Sire Count Hengerveld De Kol, 70 A.R.O. daughters, including world's champion milk cow. For sale: 1 service bull; 10 bull calves, by 20-lb. butter cows. 75 head to select from.

W. D. BRECKON, Mgr., BRONTE, ONT.

WOODBINE STOCK FARM

Offers a few fine young Holstein bulls and bull calves, sired by Sir Mechtildie Posch. Sire's dam holds world's largest two-day public test record, dam Ianthe Jewel Mechtildie, 27.65 lbs. butter in 7 days; average test, 4.46 per cent fat; out of dams with superior breeding and quality. Shipping stations—Paris, G.T.R.; Ayr, C.P.R.

A. KENNEDY, Ayr, Ont.

LOOK HERE

Have on hand bull calves from choice dams, and sired by some of the greatest cows in Canada. Boutje Q. Pieterje De Kol; 643 lbs. 7 days; 96 lbs. 1 day. His sire's dam and granddam have records averaging over 25 lbs. butter week. Also choice bulls fit for service. Prices right.

FRED ABBOTT,
Fairview Stock Farm, Hantsville, Ont.

FAIRVIEW HOLSTEINS!

For sale: Just now we have about a dozen cows and heifers, some of them in the E. of M., and all with official backing on both sides, in calf to the Toronto 3-times champion. Also a number of bull calves with official backing.

THOS. HARTLEY, DOWNSVIEW, ONT.
Weston and Downsview stations.

Maple Hill Holstein-Friesians

Bull calves from No. 1 dams, sired by bulls with great official backing. Write for prices.

G. W. Clemons, St. George, Ont.

Queen City Holsteins

Big smooth cows. The sort that fill big pails the year through. They are officially tested in both seven-day and twelve-month tests. Farm seven miles north of Toronto, near Metropolitan Electric Ry. Long-distance telephone.

R. F. HICKS, Newton Brook P. O., Ont.

The Maples Holstein Herd!

RECORD OF MERIT COWS.

Headed by Lord Wayne Mechtildie Calamity, also in the Record of Merit. Nothing for sale but choice bull calves.

WALBURN RIVERS, FOLDEN'S, ONT.

HILTON STOCK FARM—Holsteins, Gatswolds 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, Ont. Brighton Tel. and Str.

HOLSTEINS

Two choice bulls, 10 months. Also calves for April and May delivery, sired by imported Ykema Sir Posch 2nd (Johanna Rue Sarcastic). O. I. C. swine. Largest strain bred in Canada. All ages. Express prepaid. **E. D. GEORGE, Putnam, Ont.**

MAPLE-LINE HOLSTEINS

For immediate sale, is 1 yearling bull and several bull calves from 3 weeks to 24 months of age, out of producing cows of a high order. Also some choice young Yorkshire boar pigs from 6 to 8 weeks. **W. A. Bryant, Oatnigorm, Ont.** Strathroy station.

Special Offer!

Two very richly bred sons of Sir Abbecker De Kol 2nd and Mercena's Sir Posch, from deep-milking and officially-backed young cows, at low prices considering their rich breeding. For particulars address: **H. BOLLERT, Cassel, Ont.**

RIDGEDALE FARM HOLSTEINS

For sale: 4 bull calves from one to ten months old; 2 heifer calves. All bred from choice dams. Also a pair of choice cows supposed to be in calf. **R. W. WALKER, Utica P. O., Ont.** Port Perry (G.T.R.) and Myrtle (C.P.R.) stations. Ontario Co.

Glenwood Stock Farm—Holsteins and Yorkshires.

Holsteins all sold out. Have a few young Yorkshire sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. **THOS. B. CARLA & SON, Warkworth P. O., Ont.** Campbellford Stn.

QUESTIONS AND ANSWERS. Miscellaneous.

UN SOUND HORSE—FENCE REMOVAL.

1. If a man pays over \$100 for a horse, is that any guarantee that the horse is sound? Or, if horse is not sound and good, can he claim anything from man who sold him the horse?

2. Give proper way to notify a neighbor to remove a line fence that he has built on our land.

3. How long must he have notice before we can make him move same? Ontario.

Ans.—1. No.
2. It ought, preferably, to be in writing and handed to the neighbor by someone who would be available and satisfactory as a witness, if necessary, later on. The form of the notice is immaterial so long as it clearly requires a removal of the encroaching fence forthwith.

3. He is not legally entitled to any length of notice.

GAS-METER INSPECTION.

Could you inform me, through your paper, if the Government sends inspectors to inspect gas meters marked with Canadian Government seal, providing the users are not satisfied with the way they register, or what steps can be taken to know if they register correct?

Ans.—Anyone who is dissatisfied with the reading of his gas meter may notify the Dominion Government's district inspector of gas meters, who then notifies the gas company to bring the meter to his local office to be inspected in the course of his monthly round. If the complainant proves to have been mistaken in his surmise, the charges, which are fixed on a prescribed scale, are borne by him. If he is correct in his suspicion, and the meter is at fault, the company pays the cost of inspection. It is provided that in case the meter is found "slow," the company is entitled to charge the patron a proportionate levy on the amount of his last three months' gas bills. On the other hand, if it is found to be "fast," a corresponding rebate is in order. The inspectors are officers of the Inland Revenue Department. There is one in London, one in Hamilton, etc., and each local officer in gas centers within the territory he covers. Inquiry through the gas company, or otherwise locally, will suffice as a means of getting in touch with the proper authority.

MANGE—EWE DISOWNING LAMB—SOW PAST REGULAR GESTATION PERIOD.

1. Could you give me a cure for mange in collie dog? Hair is coming off.

2. Can I do anything to make a ewe take her lamb? I have two that each have a lamb, three weeks old, and they will not let them suck, unless I am there, when I have a hand on them they stand all right. Had them separated from the rest of the flock, but they were not any better. How old will they need to be to be weaned on grass?

3. Sow has gone over her time a week. She has pigs in her I am sure. Her teats filled with milk three days ago, but has not had any pigs yet, and doesn't seem to try. Could the pigs be dead inside her?

Ans.—1. Clip the hair off close. Give a thorough washing with warm, soft water and soap; rub dry. Then wash with a solution of creolin at rate of two tablespoonfuls to a pint of warm water once a day, till dog stops rubbing, skin heals, and hair starts to grow. Give a teaspoonful of sulphur in milk or other food once a day for a week.

2. Tie the ewe by the neck for a few days in a small pen formed of low hurdles. Smear lamb's back and rump with some of the ewe's milk. In some cases bringing a dog into the pen causes the ewe to take to protecting the lamb, and she will mother it afterwards. Lambs are generally weaned at five months.

3. When a sow goes a week or more over her time, her litter is generally weak and flabby, and not likely to live, even if born alive. It is possible the pigs are dead, and, if so, there will be danger that the sow may not be able to give birth to them without assistance. In such cases, forceps made for the purpose greatly facilitate deliverance.

HOLSTEINS

We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way: arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Also a few young bulls, 100 head to select from. Imported Pontine Hermses, son of Hengerveld De Kol, world's greatest sire, head of herd. All leading breeds represented. **M. E. GEORGE, Crampton, Ont.** Putnam station, near Ingersoll.

To Head Your Herd

Why not buy Korndyke Lily De Kol. Born January, 1904. Sire Korndyke Queen's Butter Boy. Dam Miss Lily. This is a handsome young bull, and has proved himself a getter of good stock. Write for particulars. We also have a few cows and calves for sale.

E. & F. Mallory, Frankford, Ont.

Two-year-old HOLSTEIN BULL

For Sale! . . .

PRINCE POSCH CALAMITY 3RD. His dam has a 19-lb. butter-a-week record. 3 nearest female relatives average 24 lbs. a week. Quiet and sure. Half black and half white. First check for \$70 takes him. **GEO. RICE, Annandale Farm, Tillsonburg, Ont.**

MAPLE GLEN HOLSTEINS

Herd of 35 head with A. R. O. breeding, backed up by butter tests of over 16 lbs. as a two-year-old to over 26 lbs. as a cow. A good herd to select from. Two spring bull calves on hand. A R. O. test of one is over 26 lbs. for dam and 8. dam. Come and inspect the herd. Any animal will be offered for sale.

G. A. GILROY, GLEN BUELL, ONT.

LYNDALE HOLSTEINS!

Bull calves for sale out of cows with records of from 12 to 20 lbs., also 3 heifers coming 2, and a number of young cows in Record of Merit, bred to a grandson of Pieterje Hengerveld's Count De Kol.

BROWN BROS., LYN, ONTARIO

BRAMPTON JERSEYS

CANADA'S PREMIER HERD.—Strengthened regularly by importations from United States, England and the Island of Jersey. We have animals of all ages and both sexes for sale, and the largest herd in Canada to choose from. Write for prices and particulars. Long-distance 'phone at farm.

B. H. BULL & SON, BRAMPTON, ONT.

W. Willis & Sons, Pine Ridge Farm, Newmarket, Ont.
Breeders of registered high-class JERSEY CATTLE. Stock for sale of both sexes, and reg. Cotswold sheep. Correspondence solicited.

Jerseys & Extra Choice Young Bulls For Sale, 3 and 9 months old, grandsons of the great Financial King, out of large, heavy-milking dams. Inquiries solicited. ARTHUR H. TUFTS, Box 111, Tweed, Ont.

Stoneycroft Ayrshires

Choice young bulls and heifers of the very best breeding, combining show and dairy quality. Large Improved Yorkshire Pigs from imported sires and dams, now ready to ship.

STONECROFT STOCK FARM, Ste. Anne de Bellevue, Que.

STONEHOUSE AYRSHIRES

On hand for sale: A number of imp. cows and heifers, winners of high honors in Scotland & Canada. 4 young bulls bred from champions and winners themselves. Extra choice offering.

HECTOR GORDON, Howick P. O. & Sta., Quebec.

Wardend Ayrshires

Present offering: 1 two-year-old, 2 yearling bulls, and choice lot of spring calves from good milkers. **F. W. TAYLOR, Wellman's Corners, Ont.** Hoard's Sta., G. T. R. Telephone in house.

Evergreen Stock Farm For sale: Choice Holstein bull calves from 4 to 5 months old. A. B. O. backing on both sides; also a few females. Write for prices and terms.
F. C. PETTIT, Burgessville, Ont.

SPRINGHILL AYRSHIRES!

A better lot of young cows and heifers we never had. They have only to be seen to be appreciated. "Deep milkers." "Good testers." Just the kind for foundation stock. Bull calves from best cows. Will leave for Scotland shortly to import. Order a choice yearling or bull calf or a female or two. They will be out of quarantine for spring service. Write for prices.

ROBERT HUNTER & SONS,
Long-distance 'Phone. **MAXVILLE, ONT**

KELSO S. F. AYRSHIRES

My winnings at Ottawa this year were: Aged cow in milk, 1st and chs.; dry cow, 1st; Canadian-bred cow, 4th; Canadian-bred 3-year-old 3rd. For sale, anything in herd, both sexes. Extra choice stuff. **D. A. McFARLANE, Kelso, Que., Athelstane Sta., G. T. R.**

SPRING BROOK AYRSHIRES are noted for being large producers of milk testing well up in butter-fat. A few bull calves of 1908 for sale; also the stock bull, Crown Prince of Lesnesesock—1906—(imported), for delivery July 1st. Write for prices. **W. F. STEPHEN, Huntingdon, Que.**

Glenhurst Ayrshires

Oldest-established herd in Ontario, Imp. and Canadian-bred. Average B. F. test for the whole herd, 4.2; milk yield, 40 to 60 lbs. a day. For sale: females of all ages, and several young bulls; all by Imp. sire and some out of Imp. dams. James Benning, Williamstown P. O., Ont., Lancaster Sta.

AYRSHIRES

Young bulls from producing dams and same sire, from 1 months up to 2 years. Rare good ones and will speak for themselves. **N. DYMENT, Hickey Hill Stock Farm, Clappison, Ont. Dundas Station and Telegraph.**

Burnside's Champion Ayrshires

My 1907 importation of 75 head being about all disposed of, I am preparing to import again. Mr. And. Mitchell, the world's most extensive dealer and breeder of Ayrshires, is at present securing for me the best young bulls from the best herds in Scotland. Send in your order now for a choice bull and a female or two. Bulls will be out of quarantine in time for spring service. Correspondence solicited. Long-distance 'phone in house.

R. R. NESS, Howick, Que.

Burdock BLOOD BITTERS.

Turns Bad Blood into Rich Red Blood.

No other remedy possesses such perfect cleansing, healing and purifying properties.

Externally, heals Sores, Ulcers, Abscesses, and all Eruptions.

Internally, restores the Stomach, Liver, Bowels and Blood to healthy action. If your appetite is poor, your energy gone, your ambition lost, B.B.B. will restore you to the full enjoyment of happy vigorous life.

Cattle and Sheep Labels

Size	Price, doz.	50 tags
Cattle	75c.	\$3.00
Light Cattle	60c.	\$1.50
Sheep or Hog	40c.	\$1.00

Cattle size with owner's name and address, and numbers; sheep or hog size with name and numbers. Sample and circular mailed free. Get your neighbors to order with you and get lower price. **F. G. JAMES, Bowmanville, Ont.**

FAIRVIEW SHROPSHIRE

We are now ready to book orders for Show rams and ram lambs, Show ewes and ewe lambs. Also field sheep of each sex. Our flock is in fine shape and we are sure they will suit customers. Come to see them or write for quotations. **J. & D. J. Campbell, Fairview Farm, Woodville, Ont.**

JOKE ON ROYALTY.

The Prince of Wales is fond of telling a good story on himself in connection with his visit to Ottawa some few years ago.

It appears His Highness is an enthusiastic bicyclist, and while at Rideau Hall a very prominent member of the Government, knowing his liking for this form of exercise, presented the royal visitor with a cushion-frame "Cleveland."

The Prince, then Duke of York, stole away for a quiet spin early one morning, and in his ramblings met a farmer, headed marketwards, his wagon temporarily stalled by the loss of a nut belonging to the whiffletree bolt. His Highness, with his usual democratic kindness, assisted the man to find the lost nut, and to couple up again.

In parting, the farmer expressed his rough thanks, and asked if he might know the name of the "person" to whom he was indebted. The royal cyclist replied, modestly: "I am the Duke of York, and may I ask whom I have the pleasure of addressing?"

A broad, amused smile beamed from the farmer's face. He puffed out his chest, and said: "Me! Me! Why, I'm your uncle, the Czar of Russia."

The Prince saw the humor of the passage, and laughed heartily as he wheeled countrywards.

QUESTIONS AND ANSWERS. Miscellaneous.

SWEET CLOVER.

1. Is sweet clover sown alone, or is it sown with a nurse crop, as other clovers are?
2. Can the seed be obtained from the seedmen? If so, at what price per pound?
3. How many pounds of seed should be sown per acre?
4. If cut for hay before it goes to seed, will it die out, or will it grow again?

Ans.—1. Inasmuch as sweet clover is a crop not liable to be grown, except as a means of improving poor soils not likely to be capable of growing a very good crop of grain, it would seem wise to sow it alone, though it may be successfully seeded with a nurse crop that does not shade it unduly. Sweet clover, by the way, is not a clover in the strict sense of the term, belonging to the genus *Melilotus*; whereas, the true clovers are of the genus *Trifolium*.

2. We find it listed in the catalogues of a couple of seed firms, including that well-known and reliable one, Wm. Ewing & Co., Montreal; price 25c. per pound. Large lots would probably be cheaper.

3. About 15 pounds.
4. Sweet clover is supposed to be a biennial, and to die out after the second year of its growth, although, like common red clover, it may sometimes persist longer. It will, however, bear two, if not three, crops of hay in its second year, providing it is cut each time before coming into bloom. We would not recommend the use of sweet clover as a hay or pasture crop, where red clover, alsike or alfalfa can be grown. Its great virtue is as a soil renovator, as a bee pasture, and, in some cases, possibly, as a means of inoculating the soil with the nitrogen-gathering bacteria requisite for the successful culture of a following crop of alfalfa. It is probable that this latter object might be more advantageously attained by treating the alfalfa seed with nitro-culture.

SMUT IN BARLEY—FORMALIN FOR SCABBY SEED POTATOED — POTATO SPRAYING.

1. Is formalin used for treating barley infected by smut the same way as for oats or spring wheat? As my barley was quite smutty last year, I would like to destroy the smut germs this year before sowing, but have never heard of anything being used for barley.

2. How is formalin used for treating seed potatoes that have been sorted out of a pit containing scabby potatoes?

3. As I have a barrel Spramotor for spraying my orchard, would it be necessary to treat potatoes with formalin if I used some kind of a solution on the potato stocks while they are green for killing bugs, and, also, to prevent rot and scab? If so, what mixture would be best?

"ONE WHO WELCOMES THE 'ADVOCATE'."

Ans.—1. Yes; formalin is recommended for barley as well as wheat and oat smuts.

2. Soak the whole tubers before cutting for two hours in a solution of 8 ounces formalin in 15 gallons water, or 1 ounce formalin in 2 gallons of water. After treatment, keep the potatoes from contact with vessels that have contained scabby potatoes.

3. No spray or other treatment that can be applied to the tops will be of any avail in preventing scab. Treatment of the seed potatoes, as above, is the means of coping with this disease. It destroys the spores on the tubers. Of course, other spores may be present in the soil in which the potatoes are planted, in which case the treatment may be nullified. For fuller particulars concerning this disease, and preventive precautions, see article on page 738, issue of April 23rd. Thorough spraying of the tops with Bordeaux mixture in proper season will safeguard the crop against attacks of blight, and the particular form of rot associated with it. Bordeaux mixture may be combined with the later applications of Paris green. For particulars, see "Calendar Guide to Spraying" in "The Farmer's Advocate" of March 26th. The subject will, also, be treated again more fully in due season.

ANIMAL DIP-DISINFECTANT-LICE KILLER-WORM POWDER

USED AT 44 AGRICULTURAL COLLEGES
IS FOR SALE AT ALL DEALERS EVERYWHERE

ZENOLEUM

SEND FOR FREE 64 PAGE VETERINARY BOOK

IF ZENOLEUM IS NOT SATISFACTORY, EITHER WE OR YOUR DEALER WILL REFUND YOUR MONEY
THE ZENNER DISINFECTANT CO., MAKERS, 112 WINDSO, ONTARIO.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs.

Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, Harriston, Ont.** or **Buena Vista Farm.**

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.**

I CAN FURNISH JUST NOW A LARGE NUMBER OF EXTRA GOOD Shropshire & Cotswold Rams

A large number of extra good Shropshire and Cotswold ewes, twelve months old. And a few very high-class Shorthorn bulls and heifers. Any of which will be sold at moderate prices. **ROBERT MILLER, STOUFFVILLE, ONT.**

SUNNYMOUNT BERKSHIRES!

Boars fit for service, sows safely in pig, young sows 4 months old, young sows and boars 3 months old, imported in dam. **JOHN McLEOD, Milton, Ont., P. O. and Sta., C. P. R. & G. T. R.**

Large White Yorkshires!

Am offering at the present time a choice lot of boars ready for service, from imported stock; also young pigs of both sexes, not akin. Prices right, and quality of breeding unexcelled. Write or call on **H. J. DAVIS, WOODSTOCK, ONT.**

Duroc-Jerseys

Boars fit for service. Sows ready to breed. Several sows in pig, also younger ones. Imported Canadian Boy 1907 heads our herd. **MAC CAMPBELL & SONS, Harwich, Ont.**

YORKSHIRES

Of the Choicest Type of Breeding!

Our herd stands second to none in Canada to-day. We invite inspection. Any stock shipped can be returned at our expense if not satisfactory on receipt. Prices not the lowest, but for value received we guarantee them as good as the best. Good stock on hand now. **J. W. BOYLE, P. O. Box 563, Woodstock, Ont.**

EAST BANK HERDS

Large English Yorkshire and Berkshire Swine, Shorthorn Cattle, Barred Rock Poultry. Am offering bargains in choice suckers at very moderate prices, bred from choice prizewinning stock. Can book orders for immediate delivery in any of the above, also for succeeding months. Barred Rock eggs 75c. for 15, and \$3 per hundred. Try me for a bargain in choice stock. Satisfaction guaranteed. Phone connection. **IRA L. HOWLETT, Keidon, Ont.**

Cedar Lodge Yorkshires

100 head brood sows (imp.) and the product of imp. stock, weighing from 500 to 800 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, Newesville P.O., Ont. Manotick Sta., C.P.R.**

MONKLAND YORKSHIRES

are the easily fed, quick maturing kind. The sort the farmers want. All ages for sale. 100 sows bred now. **JAMES WILSON & SONS, FERGUS, ONTARIO.**

Newcastle Tamworths and Shorthorns

For Sale: 100 pigs, both sexes, all ages. Sows from 10 months to 2 years, bred to Imp. Cholderton Golden Secret, all descendants of Colwill's Choice and Newcastle Warrior, both Toronto champions. Also two choice Shorthorn bulls, ready for service, from choice milking dams, and sired by a son of Imp. Joy of Morning. **A. A. COLWILL, NEWCASTLE, ONT.**

Glenburn Herd of Yorkshires

Winner of gold medal three years in succession. 6 young boars from 6 to 8 months; also 75 young sows, from 6 to 12 weeks old. **David Barr, Jr., Box 3, Renfrew, Ont.**

Elmhurst Berkshires

Our large brood sows are all imported. Stall Pitts Middy, Imp (1886), winner of first at Oxford, 1907, heads the herd. All stock shipped by us as represented or money refunded. Express prepaid. Large stock to choose from. Write us. **H. M. VANDERLIP, Importer and Breeder, CAINSVILLE, Ont., BRANT CO.**

Yorkshires

A choice lot of boars and sows just farrowed and weaned. Boars ready for service, and sows ready to breed and bred. Bred from imp. and prizewinning stock. **GEO. M. SMITH, Hayville, Ont.**

Meadowbrook Yorkshires.

Young stock of both sexes. A number of sows old enough to breed, all sired by Imp. Dalmeny Topmas. Everything guaranteed as represented. **J. H. SNELL, Hagersville, Ont., P. O. & Station.**

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 1857 and Broomhouse Beau 14514. Pigs from the latter won all the first prizes at the Ottawa Fat Stock Show last March for the best dressed carcasses, and sweepstakes over all breeds or grades. We guarantee satisfaction in all mail orders. **JOSEPH FEATHERSTON & SON, STRETSVILLE, ONT.**

Large English Berkshires

for sale from imported stock. Sows with pig and pigs for sale. All ages. At reasonable prices. Guarantee satisfaction. Boars and sows delivered at Woodstock station, C. P. R. or G. T. R. **JOSHUA LAWRENCE, OXFORD CENTER, ONT.**

Willowdale Berkshires

are unsurpassed for quality and breeding. Young stock, all ages, for sale reasonable. Satisfaction guaranteed. Long distance telephone in residence. **J. J. WILSON, Importer and Breeder, Milton, Ont., P. O. & Sta., G. T. R. and C. P. R.**

QUESTIONS AND ANSWERS.
Miscellaneous.

TENANT LEAVING—ADMINISTRATION OF ESTATE.

1. A rents a farm from B for a term of years. After living on it for a year, A buys a farm, still holding B's farm. If A moves, taking all his stock and implements with him, can B hold him responsible for the rent?
2. A died without a will, leaving a wife and family. Should A's wife administer?
3. What share of the property could A's wife claim? A READER.

Ontario.

- Ans.—1. Yes.
2. Ordinarily the widow is the proper party to do so.
3. One-third.

WHITEWASH.

Some time ago I saw a recipe in "The Farmer's Advocate" for making a cheap paint or whitewash for fences and out-buildings. Some of the ingredients, if I remember correctly, were lime and rice. Having lost a few numbers, I am unable to find the recipe again. L. A. E.

Ans.—Take one-half bushel of lime, slack with boiling water, make into a milk, and strain through a fine sieve. Add to this a peck of salt, dissolved in warm water; three pounds of rice, boiled to a paste and stirred in while hot; half a pound of Spanish whiting, and one pound of glue, previously dissolved in a glue pot over a slow fire. To this mixture add five gallons of hot water; stir it well; cover, and let stand for a few days. This mixture is best applied hot, and a pint will cover a square yard.

LANDLORD'S OBLIGATIONS AS TO MAINTENANCE.

- I rented a farm:
1. If the sills under a barn floor, or driveway, become so rotten as to be unsafe for team to drive over, whose duty is it to replace, the landlord or tenant?
 2. If a stable floor, at the time of renting, is partly worn, and during the tenant's term, through ordinary wear and tear, becomes unsafe, should the tenant or landlord replace the same?
 3. Is not ordinary wear and tear expected from a tenant's covenants to keep building in repair? D. R.
- Ans.—1. In the absence of any arrangement to the contrary, it is the landlord's duty to put the building in a safe and serviceable condition.
2. The landlord.
3. Yes, in the reasonable and ordinary acceptance of such agreement.



S U S U
DON'T THROW MONEY TO THE PIGS

The mine owner gets his gold mixed with rock and combined with other metals. He gets out all the gold and then makes in addition what he can from the lead and silver, the "by-products."

The dairyman's gold is cream; the skim-milk his principal "by-product." To get all the profit he must use an

S U S U
IMPROVED U. S. CREAM 1908 U. S. Separator

With this Separator he gets out all the cream, and then uses to best advantage the skim-milk. He can't afford to feed cream to pigs.

Our Catalogue No. 110 tells why. Let us send you one.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

Prompt Delivery from well assorted stocks of U. S. Separators in Sherbrooke and Montreal, Que., Hamilton, Ont., Winnipeg, Man., and Calgary, Alta.



"HINGE-STAYS" MAKE DILLON TWICE AS STRONG

Short, stiff, hard, steel wire stays make a "hinge-like" joint at every lateral wire on the Dillon fence. These "Hinge-stays" give our fence a greater degree of elasticity—enable it to withstand greater strain. They set like, and really are, hinges—make our fence swing or spring back into shape after receiving a heavy blow, or the unusual pressure caused by a furious bull or other animal endeavoring to push his way through to freedom. Catalogue tells more about this "twice as strong" fence.

The Owen Sound Wire Fence Co., Limited,
Owen Sound, Ont.

DILLON HINGE-STAY FENCE

Don't Say "I CAN'T," Brace Up and Say "I WILL."

Don't mope and drag along, brooding over your loss of manly vigor. Get it back. No man is so run down that he can't be built up, and very few men are as sick as they think they are. So brace up and recover your old vim and courage.

There's strength in electricity for such as you. It is a builder, an invigorator. Its growing energy fills your nerves and blood with the fire of youth. Those flabby nerves of yours will dance with glee if you pour an electric current into them every night for a month or two.

Did you ever notice a man who seemed full of spirit, of animation and happiness? The fellow who tells you a good story, slaps you on the back, and jollies you until you laugh. He's one of God's noblemen, a strong man. He's choke-full of animal magnetism—that's electricity.

Don't drug. If you want alcohol, drink whiskey. If you are done with drugs, give your body real strength, and you get that from Dr. McLaughlin's Electric Belt.

It will make you strong. It will send the life blood dancing through your veins, you will feel the exhilarating spark warm your frame, the bright flash will come to your eye, and a firm grip to your hand, and you will be able to grasp your fellow man and feel that what others are capable of doing is not impossible to you. This grand appliance has brought strength, ambition and happiness to thousands in the past year.

It is a quick and lasting cure for all Nervous Debility, Weakness, Varicocoele, Rheumatism, Pains in the Back and Hips (Sciatica), Lumbago, Constipation, Indigestion, Weak Kidneys, Loss of Memory and all evidences of breaking down. It cures when all else has failed.

My arguments are good, my system is good, but I know you haven't time to study these. You want proof, and I give you that, and lots of it. When your own neighbors tell you I cured them you will know.

ALLAN NAHRGANG, Elmira, Ont., says: "Your Belt cured all my pain, and I am well satisfied."

CHAS. W. WAKEFORD, Salem Corners, Ont., says: "Nothing can take the place of your Belt. It has made a man of me."

If you are sceptical, all I ask is reasonable security for the price of the Belt, and

When You Are Cured Pay Me

You ought to read the stories of hundreds of men who followed this plan. They are happy now, and we would like to send you their testimonials. Ask us to. Brace up, face the world like a winner, and be one of the men who do things. Call or write now, and we will tell you what we can do for you. Ask for free Book.



DR. M. S. McLAUGHLIN,
112 Yonge St., Toronto, Can.

Please send me your Book, free.

Name

Address

QUESTIONS AND ANSWERS.
Miscellaneous.

FAULTY MILKER.

I have a registered Holstein heifer, two years old, calved about a month. The ends of her teats seem to be turned in so that the milk just comes out all over your hand; in fact, I cannot milk her; am letting calf suck. Her udder is perfect, and she gives a good mess of milk.

1. Could anything be done to improve the teats?
2. Another heifer, same breed and age, has been physicked several days, keeps straining after bowels move, is fed timothy hay, corn meal and bran (mixed), and sugar beets. What would be good for her? C. R.

Ans.—1. A wooden plug placed in the orifice of each teat, and left in between milkings, might cause the parts to take proper shape after a few days. The plug could be made with a shoulder to prevent it dropping out. This has been advised in the case of hard milkers. She could be milked by means of milk tubes or siphons, but there is always some danger of injury by infection or otherwise in their use.

2. There is probably some internal irritation which might be removed by giving a pint to a pint and a half of raw linseed oil.

UNTHRIFTY MARE—FEEDING GRAIN TO HORSES—CLOVER HAY FOR COWS—MIXING FEED FOR CATTLE.

1. What is the best feed for an old very greedy, heavy mare, whose hair stands on end and does not thrive well?
2. Give the best method of feeding grain to horses?

3. Would it be profitable to feed good clover hay, worth \$10 a ton, to cows, if you had plenty of good wheat straw? What would you advise?

4. Would not the same results be gained if roots were fed whole to cows, and chop on with good, clean, whole straw kept constantly before them, as if cut, pulped, and mixed? If you have plenty of good, clean straw, will the results not be just as good if it is fed whole? A. P.

Ans.—1. First examine her teeth. It is probable they are not in very efficient condition. If not in foal, give her a purgative of 8 drams aloes and 2 drams ginger; follow up with one dram each of sulphate of iron and gentian twice daily. Feed hay of good quality, and either boiled or crushed oats. Feed the grain mixed with a little bran, in a large box or manger, so as to compel her to eat it slowly. A good ration for once or twice a day would be dampened or scalded cut hay mixed with crushed grain. This is good for almost any horse. One advantage is that it compels the horse to eat the grain more slowly and mixed with a diluent.

2. Whole oats in a large grain box twice a day, with a feed of dampened, cut hay and crushed or rolled oats at noon, is hard to improve upon. At night the oats might be mixed with their bulk of bran.

3. Straw alone is a very poor ration for a cow. Use, at least, half clover hay. And, if the cows are milking, let most of the feed consist of hay, with a little straw for variety.

4. In the long run, we are inclined to think that whole roots and long, clean straw will give almost as good results as a mixture of pulped roots and cut straw. Sometimes a herdsman who commences an elaborate system of preparing feed is gratified with the apparent results at first. The cows appreciate the variety and respond to the extra care that is liable to be bestowed on them by a freshly-interested attendant. After a time, when the novelty of the new interest wears off, and the cows become accustomed to, if not tired of, the new mixture, the results are not so marked. It is possible that where the straw can be chaffed, and the roots pulped conveniently by wind-power, it may pay to prepare a portion of the daily ration in this way, but the cattle will still be better for a proportion of long forage. The writer has had a pretty thorough course in the feed-mixing business, and is not so much enamored of it as he used to be.