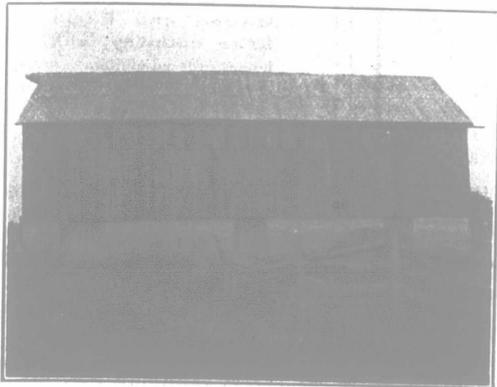


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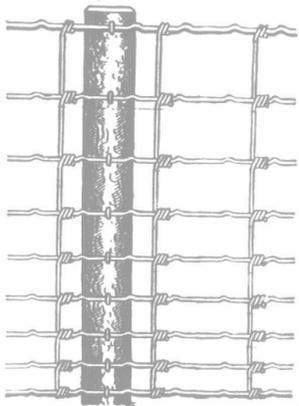
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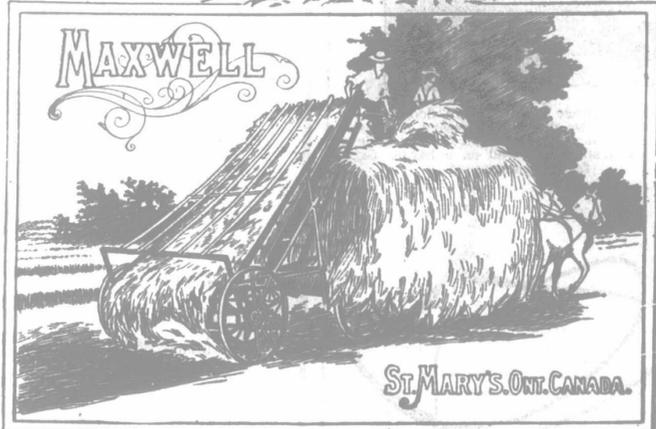
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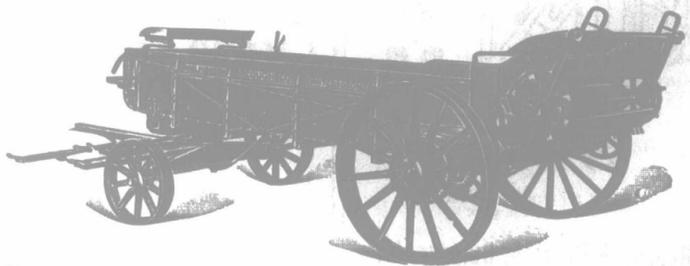
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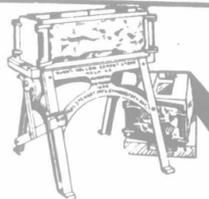
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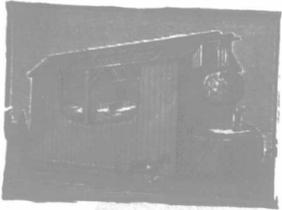
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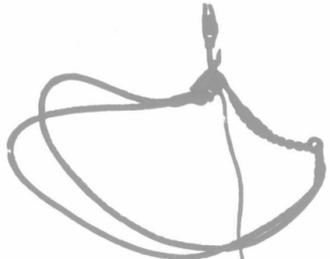


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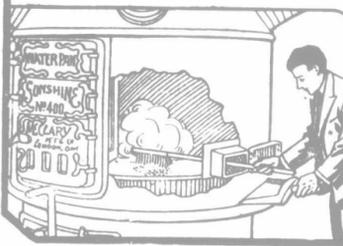
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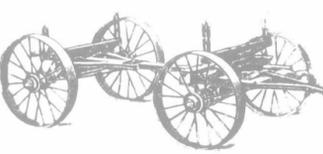
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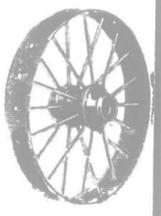
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Entry may be made personally at the local land office for the district in which the land is situated.
The homesteader is required to perform the conditions connected therewith under one of the following plans:
(1) At least six months' residence upon and cultivation of the land in each year for three years.
(2) If the father (or mother, if the father is deceased) of the homesteader resides upon a farm in the vicinity of the land entered for the requirements as to residence may be satisfied by such person residing with the father or mother.
(3) If the settler has his permanent residence upon farming land owned by him in the vicinity of his homestead, the requirements as to residence may be satisfied by residence upon the said land.
Six months' notice in writing should be given to the Commissioner of Dominion Lands at Ottawa of intention to apply for patent.

W. W. CORY,
Deputy of the Minister of the Interior.
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Director of Colonization, Toronto.

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The Farmer's Advocate

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Established 1866.

VOL. XLI.

LONDON, ONTARIO, MAY 24, 1906.

No. 713

EDITORIAL.

Have Faith in the Farm.

In these days of feverish rush from East to West, it is wholesome to reflect a little on what can be done right in the Provinces so many are forsaking. People hear great stories about the chances for money-making in the West, which doubtless there are. The bright side only is shown nowadays. The failures are not paraded for contemplation. Neither does one hear much about the seamy side of Western life—the monotony of their landscape and their occupation, the small houses, the frost, the hail, the mosquitos, the dry, wizenning climate which is bound to leave its stamp upon succeeding generations, nor the absence, in so many districts, of the priceless boon of good water. These things are overlooked just now in the exhilarating chase for wheat and dollars. This is growing time in the West. Prosperity wings over the land, and the inhabitants bear lightly the deprivations they endure. But when the growth begins to wane, when economic conditions become closer, as they must, when the quickening effect of immigration is no longer felt, when crops fail and hard times come, then will homesick eyes be turned Eastward from the poplar bluffs and the dull, level prairie towards the once-forsaken hardwood groves, the picturesque landscape, the smiling fields, sparkling streams and stately homesteads of the Eastern Provinces. Then will dawn the revelation that acres and dollars are not the summum bonum, that it is better to live in a land with diverse production and opportunity for fuller individual development than to spend life in a scramble for wealth. That every year Manitoba farmers are selling their homesteads to seek a more congenial environment in the valleys of British Columbia, is indeed significant.

Eastern Canada is a favored land to live in, fertile, well wooded and watered, free from disastrous extremes of temperature, as well as from seismic disturbances and storms which endanger life and property in many less-favored countries, while fruits and vegetables of the north temperate zone flourish throughout nearly its whole area. While these advantages have been conceded, it has been frequently objected that it was a poor country to get along in. Hitherto there has, perhaps, been some ground for the assertion, and yet we submit that it was not the fault of the country so much as of certain conditions which have prevented us from making out of agriculture anything like what it is capable of. Tariff changes of our own and foreign countries have repeatedly upset our trade, and forced us, with disadvantageous celerity, into new lines of farming. A widely diffused academic education has drawn a large number of our best men away from agriculture and fitted them for professional life or positions abroad. The industrial opportunities and the illusions of town life have drawn multitudes from the farm, but at length the tide has turned. Free or cheap lands in the West have drawn progressive farmers and farm hands away to compete with us in grain and beef, products which we slowly gave up for more intensive lines of farming. Of late years, increasing employment at high wages in the towns has made it necessary to pay much higher wages than formerly to keep good laborers, and we have been tardy in changing our methods so as to produce more per man, and thus make the payment of higher wages possible. All these evolving conditions have been a grave though but temporary handicap to us, for we have been obliged to unlearn much before we could learn. Therefore, it has been only the sturdy, steadfast and more or less progressive

who have done really well. That some have made thousands of dollars at straight farming is in the highest degree encouraging, for Eastern agriculture is on the eve of much better times. It is only a matter of a short while till our farm lands begin to increase in value. Then immigration will turn our way; new men, fresh ideas, improved methods will follow; a needed infusion will add virility to our blood; advancement will be more marked in ten years than it has been in the last twenty.

Ontario and other Eastern Canada real-estate is bound to appreciate. It now sells away below par. A Winnipeg business man said, recently, in reference to the enormous price of real estate in that city, that it was a safe investment, because every piece they bought they could turn around and sell at an advance. Its having changed hands increased someone else's estimation of it. Of course, there must come a limit to such boosting of values, but so far the tendency has been upward, and frequent transfer has stimulated the rise. In the East values have been going backward, for reasons alluded to above, and the dumping of large areas on the market has taken the heart out of the demand. They are now about at or near low ebb, and all that is needed is brisk and persistent advertising to attract the fickle appetite of investors and give real-estate figures an upward hoist that will finally send prices up to double, treble or quadruple what they now are. Every day there are good farm lands changing hands in Ontario at \$30 to \$50 an acre, which, under corresponding conditions, in many States of the American Union would be snatched up at from \$100 to \$150. Why all the difference? It is not, we submit, so much a difference of intrinsic value or productiveness as of estimation. Land in the older Provinces must go up, and the man who invests in it within the next ten years, and knows how to handle it, will be getting in on the ground floor of a winning proposition. Shrewd men voice freely their belief that as good a chance to make money as anybody needs is lying around loose on our farms, especially those near cities. A man with a few hundred dollars can start right in at home, and by steady work, thrift, and reasonable enterprise, make good money from the beginning, while enjoying a fuller and more comfortable life than he could on the plains, and building for himself a home worthy of a green old age.

What older Canada needs is not better opportunities, but a truer and more general appreciation of them, coupled with more mental energy. Both will soon be supplied. Meanwhile, we who are on the spot, should not leave it for outsiders to discover our possibilities. It is good to consider what has been accomplished at farming in Old Ontario by men without specially favoring circumstances. Take a typical case, which we came across the other day, from actual life. Some thirty-odd years ago a farmer's son in one of the older districts, with but a limited public-school education, an indifferent pair of horses, a few cows, a good wife, and a stout heart, bought a fifty-acre farm, on which he had only a few hundred dollars to pay down. He resolved to farm as well as he could know, and has been a reader of "The Farmer's Advocate." He supported church and local institutions loyally, paid the taxes, and raised a family well. He was a steady-going man who pursued mixed farming, as thousands of others do in old Canada. To-day he owns 100 acres of fertile, clean, well-drained land, with good house, barns and stock worth easily \$7,000, with a cash surplus of nearly as much more to the good, and owes no man anything but goodwill.

He did not hanker to run a corner grocery, nor did he dabble in silver mines, or cement en-

terprises, or pork-packing, or York Loan stocks, or rubber plantations, or take a fly in the wheat pit or any of the other "get-rich-quick" schemes that are dangled before the eyes of the unwary; he just farmed with the conviction that it deserved the best energy and brains he could put into it.

What man has done, man can do. Farming is a mighty good business. Stick to it.

Farmer, Save the Tree!

No apology is offered for the frequent attention "The Farmer's Advocate" has given the subject of the farm wood-lot. It may be argued that it is a matter in which but few are interested. True, but it is one in which everybody should be interested, and we have been pleased to note that our stand has been approved by leading thinkers. This means that it will sooner or later be commended by all. There is not a more urgent question before Canadian farmers to-day. Its immense import lies in the fact that upon the action of the present generation depends the welfare of the future. A man may run down his land by bad farming, but he cannot well exhaust it beyond the power of clover, cultivation and mineral fertilizers to restore. He may let the buildings go to rack and ruin, but others can be built. He may let his live stock run out, but a new foundation may be purchased by his successor. Not so the forest. Once gone, it will take more than a generation to renew, and the expense will many times exceed any slight loss of revenue that might be sustained from enclosing it and caring for it now while it stands. The letters from prominent manufacturing firms show the grave scarcity of merchantable timber already existing in Canada, a scarcity rapidly becoming more alarming. What will be the condition twenty years hence? Even now one cannot drive through Western Ontario without feeling disturbed at the all but exhausted woodlands. Looking about over the horizon, it appears as though there were quite a bit of bush, but approach any piece in sight, and what do you find? A few scattered trees standing in grass. In a few years these, too, will be gone, unless we act promptly? Better live on the prairie outright, where at least the soil is marvellously rich, and where trees planted, as they have been in some cases, grow well. If it is worth planting trees there, is it not better worth keeping them here? We want the forest to ensure a timber supply. We want it for the benefit it is to crops by checking winds. We want it for its effect in ameliorating climatic conditions, regulating the flow of rivers, and conferring numerous other benefits not to be enumerated here. We want the woodland as a harboring place for insectivorous and other birds which save our crops from insect injury and add a special charm to rural life. We need the wood-lot in the very worst way, and the future will feel the need of it very much worse than we.

It is our duty, our honor, and should be our pleasure, to take some thought of the morrow in this matter. Upon the speedy arousal of the public conscience to a realization of its duty depends the future attractiveness of rural Canada, and, to no small degree, its future prosperity. The problem of the farm wood-lot is a problem of the present for the future. It is one that must and does enlist the sympathy of every patriot. Prompt and practical action by every land-holder is the duty of the hour, and the only action needed in the majority of cases is a little fencing to keep the stock out of the bush. Simple and easy enough, everyone must admit, and with the prices of merchantable timber soaring as they are, it bids fair to pay in direct return of dollars and cents.

Mr. J. P. Downey's Bill, empowering municipi-

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AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED WEEKLY BY
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palities to exempt from taxation unoccupied woodlands (within certain limits), has passed the Legislature. What municipality will be the first to act?

An Embargo on Human Sympathy.

Just as soon as the overwhelming magnitude of the Californian earthquake that overthrew San Francisco and adjacent towns became known, the Canadian Parliament, without a shadow of dissent, voted \$100,000 for the relief of the stricken community, whose losses were doubly aggravated by the conflagration that followed the seismic overthrow. The vote voiced the national sympathy of this country for the sufferers in the Republic. Official intimation was in due form sent through the channel of the Government at Washington, but the offer was just as promptly and decisively declined. President Roosevelt's reply, coupled with the usual diplomatic thanks, was that the United States was in a position to fully care for the situation, and we believe a couple of similar offers from other nations were also declined. Behind the official reason handed out was, perhaps, the national self-sufficiency that would not permit the Republic to be under obligations to anybody. This almost bumptious attitude has not been well received in Canada, and we are glad to find that it has not universal approval across the lines, either. Furthermore, it is in striking contrast with recent disclosures through the press of the hundreds of thousands who have been for weeks on the very brink of starvation, and the almost tragic appeals from California to Congress, which has already voted some \$2,500,000 for relief, for \$5,600,000 additional to pay losses involved. National respect is all right, but we have little use for a spirit that puts an embargo upon an expression of national sympathy, the touch of nature which makes the whole world kin.

Law, Opinion and Reforms.

Judging by the almost daily bill-of-fare served up at the Ontario Legislature for a couple of months past, this Province appears to be passing through a sort of law-making epidemic. Law and public opinion are curiously interwoven. Mr. A. V. Dicey, K. C., B. C. L., one of the foremost English authorities on law and constitutional questions, delivered a course of lectures before Oxford and Harvard Universities on this subject a few years ago, which have since been published in book form. In the concluding chapter he points out that legislative opinion is more often the result of facts than of philosophical speculations, and that no facts play a more important part in the creation of opinion than laws themselves, whether wisely or unwisely enacted. He contends that every intelligent student of this subject must ultimately arrive at the conclusion that each kind of an opinion entertained by men at a given era is governed by that whole body of beliefs, convictions, sentiments or assumptions which, for want of a better name, we call the spirit of the age. As Pattison says: "Deeper than opinions lies the sentiment which predetermines opinions. What it is important for us to know with respect to our own age, or any age, is not so much its peculiar opinions, as the complex elements of that moral feeling and character in which, as their congenial soil, opinions grow." Through all these legislative efforts runs the aim to increase the sum total of human security and happiness. Elsewhere in this work reference is made to the long-drawn efforts for reforms in which leading minds make their impress on the spirit of their times. It is very clear that the purely judicial or philosophic type of mind is not the one which most effectually battles for the alleviation of wrongs and abuses. There must be intense conviction, optimism, enthusiasm, and an unconquerable persistence in overcoming the inertia of the public and those entrenched self-interests which act as a brake or a block to progress and reform. Another point to be remembered is this: That laws do not enforce themselves, even though they are the expressions of public sentiment, and that Canadians are rather prone to settle down with folded arms once the legislation is enacted, in the cheerful confidence that thereafter all will be well.

HORSES.

Our Scottish Letter.

HACKNEYS SELL HIGH.

We live in stirring times, and it is certainly the unexpected that happens. It is believed by many that the days of horses are over, and soon we will be puzzled to know what to do with the grain and hay now grown for horse provender. Motor-cars are everywhere, and, as if the petrol motor were not a sufficiently weighty menace to the horse, the streets of London are about to be invaded by the electrobus, the evil-smelling, noisy automobile to give place to the smoothly-running and noiseless electric car. Yet, while these are the portents, yesterday the writer saw a five-year-old Hackney mare sold by public auction for 1,175 gs., or \$6,165. This was the London champion, Menella (16799), a dark-brown mare, bred by Mr. R. C. Marshall, Burntsields, Kill-earchan, Renfrewshire, and owned by Mr. William Scott, of Thornhome, Carlisle, whose stud horse, Mathias (6473), was her sire, and he also now owns her dam, Norah Garton, a daughter of the great sire, Garton Duke of Connaught. Menella was champion driving animal at the London Hackney show nearly two months ago, and in respect of shape, color, size, manners and action, all round, is at present peerless. The purchasers are Can & Co., Clydevale Stud, Carlisle, who do a very big trade in carriage horses, and have a splendid outlet for the very choicest, in the United States. The wonders of the day did not cease with Menella. Her half-brother, Gay Mathias, a lovely four-year-old black cob, also bred by Mr. Marshall, made 650 gs., or \$3,110, and others by the same magnificent harness sire drew such prices as 285 gs., 265 gs., 185 gs., 180 gs., and 110 gs. The average price of ten harness geldings and mares got by Mathias was £319, and the average of twenty harness horses sold at Thornton yesterday was £184 17s., as against £108 at last year's sale, when the highest price was 585 gs., paid for Bryony, another of Mathias' progeny, since exported to New York. It is obvious, from these figures, that motor-cars do not in any way threaten the supremacy of the highest class of driving horses. At the Gowanbank sale, on

Thursday, Mr. Alexander Morton sold 39 harness horses, cobs and ponies, at an average of £44 6s. 16d. Considering the fact that 19 of these 39 were ponies, this must be regarded as not bad business. The 19 ponies made an average of £37 1s. 7d. There is, however, a distinct lack of confidence in the trade for light-legged horses generally. The tip-top section sell for more money than they were ever making, but there is a big chasm between their value and that of the best class of commercial harness horses. The well-known Hackney stallion, Matchless of Londerboro (1517), which Mr. Andrew Montgomery brought back from Canada last winter, has been purchased by Mr. Alexander Morton, and joins his Gowanbank stud. Mr. Iain Ramsay, of Kildalton, Islay, has also purchased a famous old Hackney in Lord Hamlet (3750), which has come north, and joins his famous Islay stud. This horse was the first of the produce of the great Ophelia, the London champion mare, and dam of Mathias Polonius, Heathfield Squire, and one knows not how many more first-class horses and mares. Ophelia is, without question, the most successful Hackney breeding mare on record. So far as I know, she is the only London Hackney champion mare which had bred champions.

THE AYR SHOW is past for another year, and the Ayr Derby, the blue riband of the Ayrshire breeder, has been won by Mr. James McAlister, Meikle Kilmory, Bute, one of a trio of enterprising brothers bred in that island, all of whom achieved distinction as breeders. Mr. McAlister's champion is by no means a big animal, but she has plenty of vessel and teats, and is an improvement, so far as length of teats is concerned, on many of the fancy show sorts with which the public have been familiar in the past. Although beaten for the championship at Kilmarnock, she turned the tables on her opponents at Ayr and came out on top of everything. The sire of this quey is Sir John of Old Graitney, a bull promising to breed uncommonly good stock. The first, third and fourth in the Ayr Derby were all got by him. The second was by the noted bull, Flora's Chief, the son of a famous show cow named Flora of Burnhouses, shown some years ago by Mr. Wm. Howie, and rarely beaten. The dam of this second quey, Queen of Hillhouse 12205, owned by the late Mr. Drennan, was one of the best champion cows at Ayr. It is worth noting these particulars. Blood tells. Both Flora and Queen were magnificent, big, milky-looking cows, and popular with both the "fancy" and the commercial judges of Ayrshires. Whether the Derby was this year better than in recent years is a moot point. Perhaps it would not be incorrect to say that, barring a little lack of size and scale in body, the 3-yr.-old queys are fully better than they have been. The most outstanding improvement is seen in the size of the teats. Mr. Thomas Barr, Monkland, Kilmarnock, was champion both at Kilmarnock and Ayr with his famous bull Zomosal, a big, handsome, white and brown, with lots of substance and length.

Clydesdales were both numerous and good at Ayr. On account of the lamented death of their owner, Mr. St. Clair Cunningham, the champion of the Kilmarnock show, and other outstanding exhibits, were not forward. Mr. J. Ernest Kerr, of Harviestown, Dollar, was first and champion with his beautiful three-year-old mare, Veronique. She was got by Montrave Ronald, an extra well-bred horse, and looks like taking a deal of beating this season. Mr. Kerr's stud also provided the first-prize yeld mare and two-year-old filly, both being got by Baron's Pride, and the first-prize brood mare, Mr. Chapman's Winsome Baroness, was got by the same sire. The first-prize yearling was Mr. Robert Park's Mannora, by the celebrated Marmion, the sire of Rosadora, the Cawdor Cup champion of last year, now in Mr. Bryce's hands at Arcola, Assa. The champion of the male section was Mr. John Pollock's Undaunted Prince, by Hiawatha, a very tall, narrow colt, with great showy style and good action. He is a two-year-old, and when he fills out will have few equals. Mr. James Kilpatrick had first in the three-year-old class with Hapland's Pride, another son of the same sire, and a wonderful mover. The winning yearling in a big class was a very lovely colt, owned by Messrs. A. & W. Montgomery, and got by Baron's Pride. This rare stamp of a quality Clydesdale is a treat to look at. The longer one's eye dwells on him, the better does one particularize his many fine points. He is all the time a gentleman's colt. He was bred by Mr. Robert Sherman, Balig, Kirkcudbright.

The Athenia, of the Donaldson Line, which sailed this week, carried one of the most valuable shipments of Clydesdales and Ayrshires, Shetland ponies and other classes of stock which has left the Clyde for many a long day. It is impossible to give details, but Mr. R. R. Ness, of Howich, Que., has a magnificent lot of non-reacting, high-class Ayrshires, carefully selected from the herds in which dairying profits count for more than show-yard honors. His Clydesdales include prizewinners at Perth and other shows. Mr. Carruth is also a shipper by the same great ship. He hails from the Northwest, and has a lot on board that should command favorable attention

from buyers on the ranges. On the whole, Clydesdale and Ayrshire breeders have reason to be satisfied with the healthy trade that is being done in their favorites.

"SCOTLAND YET!"
Glasgow, 28th April, 1906.

Should Breed Mares.

The breeding of some kinds of stock receives attention on most small farms, but taken generally, the horse is not one of them. This is an omission difficult to understand, for of all the profits resulting from one animal, the mare stands conspicuously first, especially if she is anything like well bred. The returns given far exceed those obtainable from ordinary specimens of cattle, counting the value of the mare as a working proposition, as well as a breeder.

There are always one, two or three horses kept on a small farm; facilities, therefore, exist for breeding, but they are taken very little advantage of by many farmers. However, once breeding is begun, it is usually continued, as the results are so generally remunerative.

All who have bred from good and inferior mares have conclusively proved that the good ones pay the best to a very decided degree, and although they may cost more originally, the better price obtainable for colts at any age soon more than makes up the difference. This applies to all classes.

Conditions must be dealt with as they exist, and it can hardly be expected of those with inferior mares to sell them and replace them at once with a better class. But there are means of improving the stock, and the best way is to employ a high-class stallion. There cannot be much difficulty in that, for in the present day there are to be found splendid stallions of all classes, and at moderate fees.

The useful animal which does odd jobs, not regularly employed, is the mare that should be kept breeding. There will be no hindrance from that condition to doing the farm work required in the spring. If need be, they can have a rest of some days before foaling, without letting the work fall behind. Haymaking will be, perhaps, the first employment after foaling, and, with care, they can do a great deal of light work in this without interfering in the least with the maternal duties. The argument that mares cannot be spared is all wrong. If the farmer or those having an available mare, would breed her in the spring, she could be worked up to within a few days of foaling, and then put to light work a few weeks afterward. This would insure a source of income, and offer the breeder an opportunity to breed up his stock.—[Rider and Driver.

Three-horse Evener and Lines.

Editor "The Farmer's Advocate":

I send you herewith description of three-horse evener and arrangement of lines for driving three horses abreast. For the evener, attach to one end of the evener an ordinary set of two-horse whiffletrees, and at the other end—which should be just twice the distance from the line of draft—attach whiffletree for the third horse, whose traces should be a little longer than the others, or else the connection between whiffletree and evener should be lengthened to have three whiffletrees even with each other.

For the lines, take ordinary double-team lines, inside short lines going to middle horse's bridle. Then an ordinary rope line is fastened to the middle horse's bridle, each end of which goes to the bridle of each of the outside horses, and may be left long enough to check back to the middle horse's harness.

W. A. OSWALD.

Two Mountains, Que.

Four-horse Lines.

Editor "The Farmer's Advocate":

We find the most satisfactory way to arrange the lines for driving four horses abreast is as follows: Put the ordinary team lines on the center horses, tie the inside of the bits of the outside horses to the same ring of the horses next them, and have an adjustable strap about six feet long fastened from the outside of their bits to the buckle on the lines of the center team. This method gives perfect control over all four horses.

Alta.

Two San Francisco horsemen met in the driveway after the earthquake.

"Hello, Bill, where are you living now?"

Spoke up one with a humorous twinkle in his eye.

"See that big tree over there?" pointing toward the inner field of the crack half-mile track.

"Yep."

"Well, just trot over there and climb up. My room is on the third branch to the left during the earthquake season. No more brick houses with brown-stone fronts for California Bill."

To Remove the Meconium.

At this season, when foals are arriving, it may be well to repeat a caution against physicking foals to enable them to pass the meconium. The meconium consists of the faeces formed during foetal life, and exists in the form of dark, putty-like, lumpy, sticky material. As a rule, the dam's milk serves to rid the bowels of this material, but occasionally the colt fails to force it through the anus. The colt, in such cases, will seem struggling to defecate, but is unable to do it. It is a serious mistake to administer a purgative. The trouble exists in the rectum, and a purgative would merely liquify the contents of the intestines, which would be forced against the resisting meconium in the rectum. Foals are often started scouring and lost by purgatives given at this time. It is better to use an injection of warm water and oil, or, still better, to remove by inserting the oiled finger and removing the lumps, one at a time, by manipulation. Remove all possible, and inject equal parts warm water and linseed oil. In course of three or four hours oil the finger again and repeat the operation. Continue the treatment until the faeces come yellow. A noted veterinary is responsible for the statement that more foals die from retention of the meconium than from any other cause.

was one to be remembered. The average for 135 head, of which 21 were sucking calves, was £132 16s 3d., making a grand total of £17,929.16s. The auctioneer's average for 115 lots (reckoning cow and sucking calf as one lot) was £155 18s. 2d., or 7s. per head less than the Uppermill dispersion average for 113 lots, in October, 1904. Thirty-seven bulls made an average of £151 2s. 10d.; 44 cows and three-year-old heifers, £136 9s.; 17 two-year-old heifers, £166 4s. 2d.; 16 yearling heifers, £88 9s 3d., and 21 sucking calves, £99 13s.

Mr. Mills was an ardent supporter of the Cruickshank sire, but his great merit as a breeder was his success in mating such sires with Bates cows. The consequence was that on Thursday the visitor found himself in presence of cattle with the fleshiness of the Aberdeen type and the style of the Bates stock, and the best illustrations of the cross were just such animals as no breeder could possibly ignore. A marvellous cow was Countess Farewell V., a lovely roan, calved in 1899, and full of Bates style and feminine quality. She belonged to a tribe which Mr. Mills bought "en bloc" from Mr. Gibson when that gentleman was persuaded to give up farming on his own account, and joined Mr. Mills as his agent. The cow herself sold for 600 gs. to Señor Pablo Olivera, from Buenos Ayres; her sucking

heifer calf, by a Duthie bull, made 400 gs., to the same buyer. Her yearling son went at 200 gs., to Mr. Lahausen, from the Argentine; her two-year-old son at 1,100 gs., to Mr. Miller, from the same country; and her three-year-old son, the lovely prize bull, King Christian of Denmark, to Mr. A. W. Hickling, Adbolton, Nottingham, at 900 gs. The family, as sold on Thursday, consisting of five animals, sold for 3,200 gs., or £3,360, an average of £672 each. Was this ever equalled in the history of Shorthorn breeding? That the mating of Duchess cows with Duthie bulls, when wisely gone about, is good business, was further shown by the fact that the red-roan yearling bull, Duke of Ruddington VI., sold for 420 gs., the buyer being Mr. Joseph Harris, of Calthwaite, Cumberland, the owner of one of the few remaining Bates herds in the north of England. Some of the bulls were a bit rough, but prices like 290 gs., 255 gs., 210 gs., 200 gs., 165 gs., 160 gs., along with those already quoted,

soon brought up the average, so that there was general satisfaction when a halt was called for luncheon, after the bulls were sold and the average of £151 2d. 10s. was announced.

The sale of the females was far more sensational than that of the bulls. Several breeders from the Argentine had come prepared to buy what they wanted, and it was next to impossible for any Britisher to beat them, once they started. The late Mr. Mills was the only man who could have beaten these gentlemen at their own game. He never bid unless he meant to buy, and when he began to bid he held on until he obtained what he wanted. The second highest-priced female was a red six-year-old named Dainty Lass's Daughter, for which Mr. Duthie gave 500 gs. All the calves by King Christian of Denmark made extraordinary prices. For example, a badly-colored Duchess cow, with Ayrshire-like horns, herself made 65 gs., but her red cow calf, by this great bull, sold for 150 gs. The roan bull calf by him, out of Mr. Duthie's 500-gs. cow, made 180 gs. A red-and-white cow named Lady Charlotte, calved 1900, made 215 gs., and her red cow calf by King Christian made 210 gs. Mr. Hickling bought the red cow, Duchess of Ruddington III., at 310 gs., but her beautiful roan cow calf by King Christian sold for 360 gs. A five-year-old cow named Carlotta went at 390 gs. to Sir R. P. Cooper, of Shenstone, the head of Cooper's "dip" firm. Mr. Douglas Fletcher, of Rosehaugh, Inverness, gave 310 gs. for a red three-year-old Duchess. Mr. Stephen Mitchell, of Boquhan, Stirling, gave 300



Lord Norfolk and Lady Norfolk.

Pair of harness horses exhibited by Mrs. Adam Beck, London, Ont. First tandem, first pair under 15.2, and first in several single classes, Toronto Horse Show, '06.

LIVE STOCK.

The Ruddington Shorthorn Sale.

The late Mr. Philo L. Mills, of Ruddington Hall, Nottingham, although born an American citizen, was long resident in this country, where he amassed great wealth, much of which he expended in the wholesome and beneficial occupations of a country gentleman. His estate of Ruddington, situated about five miles from Nottingham, is beautifully laid out, and on it he kept a great herd of Shorthorn cattle, a great stud of Shire horses, a famous flock of Shropshire sheep, and celebrated herds of Middle White and other breeds of pigs. His death took place about six months ago. He had no family, and as none of his nephews, to whom the option was, under his will, offered, cares to follow up the life pursued by his uncle, the whole of the great stock is being dispersed. The manager at Ruddington is Mr. Arthur Gibson, whose brothers are foremost among your Canadian stock-breeders, and the first of the dispersions, accomplished under Mr. Thornton's hammer on May 3rd, was a magnificent tribute to the memory of the deceased and the combined skill of himself and Mr. Gibson. Among the crowd, which included many fanciers from the Argentine, Australians, and breeders from all corners of the British Isles, I noticed our good friend Mr. John Dryden, from Ontario. The sale

gs. for the beautiful roan three-year-old Lavender Lady II., and Mr. A. M. Gordon, of Newton, gave 210 gs. for the roan three-year-old Lady Dorothy XXVIII. Scotland repaid Mr. Mills' enthusiasm for the Scots type by buying many of the best females, although frequently the Argentine buyers proved too many for them. Mr. Fletcher got the highest-priced two-year-old heifer, Ruddington Countess Farewell II., at 410 gs. A red heifer of the same age went to Senor A. Olivera, at 330 gs., and others made 280 gs., 260 gs., 210 gs., 205 gs., and several were below that figure, but over the 100 gs. Lord Winterstoke, under which designation is concealed Mr. Wills, of Bristol tobacco fame, was a good buyer in this section. The best animal in the sale, age considered, was the yearling heifer, Dainty Lass' Daydream, an uterine sister to Mr. Duthie's 500-gs. cow. Mr. Duthie wanted the yearling also. She is a wonderfully well-finished, level-fleshed, gay roan. He bid hard, but many more were of the same mind as himself regarding her, and one of them was Senor A. Olivera, who had not crossed the South Atlantic for nothing. He held on severely against all comers, and carried off the youngster at 420 gs. Shorthorn breeding is certainly not "done."

STOCK SHIPMENTS TO CANADA.

While South Americans have been buying Shorthorns, Canadians have been buying Ayrshires. A magnificent shipment of dairy cattle left a week ago by the Donaldson liner Athenia. Messrs. Robert Hunter & Sons, Maxville, Ont., had 51 head, and Mr. R. R. Ness, Howick, Que., an equal number. The gratifying thing about these shipments is the fact that such numbers of Ayrshires can be gathered together from existing herds, passing the tuberculin test, and, to a great extent, proved to be superior milking strains of stock. Stockmen are slow to move out of their accustomed grooves, but sooner or later they recognize that the commercial test is the final, and from it there is no appeal. Mr. Ness was piloted mainly by Mr. Andrew Mitchell, Barcheskie, Kirkcudbright, and Mr. Thos. Barr, Monkland, Kilmarnock; and Messrs. Hunter had as their chief guide Mr. A. W. Montgomerie, Lessnessock, Ochiltree, who knows his way about among Ayrshires with the best of them.

Clydesdales have also secured attention from these shippers and Mr. Carruth, from the Northwest, as well as Prouse & Innes, Ingersoll, Ont. Altogether, stock-breeding is proving, as in the past, the backbone of the British farmer. If he had not his pure-bred stocks to fall back upon, it is difficult to see what he would have.

The highest-priced Hackneys sold at Thornhome a week ago, including the champion, 1,175-gs. mare Menella, have all been shipped to New York. This confirms, in another department, what has been suggested by the trade in Shorthorns, Ayrshires and Clydesdales.

"SCOTLAND YET."

Weaning Pigs.

An expert in hog-raising says that the method of weaning will depend somewhat on circumstances. If the pigs are so little dependent on the sow's milk that she is gaining rapidly in flesh and lessening in milk flow, the weaning may be abrupt, the sow being taken away out of hearing. If she is still milking considerable, she may be returned to the pigs once a day for two or three days, or the pigs may be taken away in detachments, beginning with two or three of the strongest, then the next strongest, leaving the weakest ones of the litter to complete the drying-off.



Ratcheuh With.

Shorthorn heifer; calved, Sept., 1902. Winner of first at Bath and West of England Show, 1905. Bred and owned by Mr. W. Bell, Alnwick, Eng. Sire Baron Abbotford (76087), by Abbotford (66588), bred by Mr. W. Duthie, Collynie.

Live-stock Judges.

Editor "The Farmer's Advocate":

Your editorial on appointing judges at fairs, in the April 5th issue, was interesting, and as you asked for the views of interested persons, and as for two weeks I have not seen any, I am writing this, hoping to have some opinions and improvements offered, as I, with many others, am interested. I agree with you, that the present system is not perfect, although I believe it a great improvement over the old one. The political influence you mention I don't know anything about, and doubt. The difficulty the Superintendent has in securing capable men is great. The idea of breed associations making the selection is a good one, in so far as that breed is concerned, and should be followed as far as possible, but he should not be allowed to judge any other breed, and he should not be partial to any family in that breed, and should give his reasons for the awards he makes as information to the anxious spectators, not necessarily as an accomplished orator, but as a man who knows what he is doing, and that he is doing it as an instructor. If any man believes it beneath his dignity to impart information to a desiring audience, then he should keep away from stock-judging at fairs.

Now, I believe it would be advisable to have all judges pass an examination and obtain certificates after taking a course of instruction in judging; that the student should carefully train his eye and touch, become intimate with the standard of excellence of the class of animals he is going to judge, irrespective of breed, and familiarize himself with the different breeds and their breed characteristics. He should study anatomy and physiology, so as to know why certain form and action are desired. A course of instruction along this line could be given at the O. A. C., where so much valuable and much-needed instruction has already been given in the short-course judging classes. I sincerely hope many capable and interested men will give their views on this very important subject, and that out of them good will come.

J. STANDISH.

Bruce Co., Ont.

Raising Bacon Hogs.

Editor "The Farmer's Advocate":

I have read with great interest in "The Farmer's Advocate" the much-discussed hog question, and I firmly believe the hog producer has not had fair play, which has been a detriment to the industry. However, there is not much ground for complaint at the present time, especially in regard to prices; but why should prices fluctuate so in such short a time? Probably it is in accordance with the law of supply and demand. However, our attention should be turned to an equally if not more important subject, namely, rearing and marketing a good and profitable hog. To raise such it is very important that we keep good brood sows, which, I consider, should be pure-bred by all means. If belonging to the easy keep or fat kind, they should be crossed with the typical bacon sire to farrow for the first time at the age of one year. I keep two brood sows—a Tamworth and a Berkshire—crossing the former with a Berkshire, the latter with a Tamworth, each sow raising two litters a year, farrowing in all on an average thirty-six pigs a year. I prefer the Tamworth as a mother. She being the more active is less liable to lay on her young; she also has a more roving nature, and her offspring take plenty of exercise, making them better feeders, and far superior as a bacon hog. In the grass season my sows pick their living, and farrow where they choose. In the winter they have the barnyard to run in and a comfortable pen to sleep in. I feed them a little chop, but chiefly roots; a few handfuls of whole oats each day, thrown in the straw, is very good to keep them

in exercise. By handling them in this way I have little or no trouble with the young, as they come strong and healthy. When they are three weeks old I begin feeding them skim milk and shorts, and at weaning time—which is six weeks for spring litters and eight for fall litters—they are quite accustomed to barley meal, and eat readily. I feed moderately, giving them plenty of time to grow; marketing them at between seven and eight months old, weighing from 200 to 225 lbs. I have fed some that weighed 150 lbs. when four months and six days old, never allowing them to run out, feeding warm skim milk, shorts and barley meal, rape and stock food. My opinion is that in giving them a little longer time we produce better bacon hogs, with more profits, especially spring pigs.

Edgmont Co., Ont. SUBSCRIBER.

The Condition Powder Cure-all Fake.

"Cattle Medicines," is the title of Bulletin No. 117 from the Laboratory of the Inland Revenue Department, Ottawa, which exposes a form of charlatanism it is time to have shown up for the information of farmers and stockmen. Without going into analysis, we may content ourselves with giving the introductory comments of Thomas McFarlane, the Chief Analyst, who reports to the Deputy Minister as follows:

I recently had the honor of reporting to you the results of examining samples of the cattle feeds and stock foods which are offered for sale to the agricultural public of Canada. At the time these were collected, there were also obtained by the food inspectors samples of condition powders, so-called, which were supposed, like the stock foods, to have good effects in improving the appearance of the animals to whom they were administered. Of these condition powders, or cattle medicines, there were collected in all 35 samples, which are described in the tabulated statement appended to this report. They were sold under the following names:

Condition powders	24	samples.
Regulators	3	"
Pheno-chloro	1	"
Cattle medicine	1	"
Hog powder	1	"
Worm powders	3	"
Colic cure	1	"
Heave cure	1	"
	35	samples.

It will be seen that only five out of the 35 samples are cattle medicines intended for use in cases of specified disease, while the other 30 are supposed to be applicable to all the ills that cattle flesh is heir to. This supposition is sustained by the claims actually made on behalf of about two-thirds of these samples on their labels or wrappers, and noted in the column headed "Inspectors' report." Others were sold in bulk, and without any claim having been made. Some of the claims recorded would really be comical as regards the universal applicability of the medicines, if it were not too serious a matter for the poor animals to whom they are to be administered.

The condition powders consist largely of linseed meal, oil-cake meal, or bran, in which are distributed more or less of other substances which are supposed to have purgative, diuretic, haematinic or tonic effects. These powders are, in fact, the proprietary or patent medicines supposed to be good for farm animals. They vary very much as regards composition. Some condition powders contain chlorides and nitrates; in others, such salts are absent; a third class has sulphates, in addition to chlorides and nitrates; in a fourth only the sulphates are present in considerable quantity; in some, free sulphur appears to be the characteristic constituent, and in others, antimony. It does not seem fair to the farmers that remedies differing so much in their ingredients should be sold under a common name, nor can it be advantageous to his animals to have medicines administered without much regard to the nature of the disease. The "regulators" contain, as a rule, iron salts, but otherwise are just as diverse in composition as the condition powders. Among the specific remedies, the worm powders exhibit similar diversity in composition, and do not seem to contain the drugs usually prescribed by veterinarians as vermifuges.

That there are remedies for specific diseases, used in veterinary practice, which are sold as such, is no doubt the case, but as regards the universal cattle medicine or "cure-all," it is very doubtful as to whether the farmer obtains value for his money.

"Choke-full" of Good Reading.

Dear Sir,—I received the farmer's knife and harmonica all O. K. The knife is a good one—just as you represent it. The harmonica is a beautiful instrument. It is lovely to play on, for which I am well pleased, and accept thanks for the same. May "The Farmer's Advocate" live long, as it is choke-full of good reading.

Dundas Co., Ont. R. H. TIMMINS.

Sheep Washing and Shearing.

Where the system of washing sheep before shearing is practiced, a few hints as to the same may yet not be unseasonable, as until within the last week the weather had not been sufficiently warm to render creek washing safe. Where the sheep have to be driven any considerable distance to the river, creek or pond, care should be observed not to drive them fast, thereby heating their blood and risking their health if plunged into cold water in this condition. It is unwise to force sheep to jump from the bank of a creek into the water, as cases are known to the writer where from the shock of the plunge heart failure has resulted, and the animal died in the hands of the operator. Better take the sheep in on the level, accustom it gradually to the water, and handle carefully, so as to frighten or excite them as little as possible. The wool should be squeezed between the hands while in the water, until the water shows little or no discoloring from the fleece; then the sheep should be carefully led to shore and held a few moments till it fully recovers its breath and strength before being let go. About a week should intervene between washing and shearing, in order that the natural oil of the skin may give the wool the usual greasy and glossy appearance.

The first move made in the shearing of a sheep is to seat it on its rump and then "belly" it. "Bellying," in the shearers' vernacular, means removing the wool from the belly of the sheep. The average English shearer makes it a particular point that the subject under course of shearing be resting easy and free from oppression of any kind. Many shearers remove the wool from the "butts" of a sheep while it sits on its rump, whilst others lay it down at full length on its side to perform this part of the operation. If it be the desire of the shearer to shear the butts of the animal whilst it is sitting on its rump, he quickly makes a few straight cuts with his shears at a point near the scrotum, or udder, as the case may be, to a point at or near the pin-bone. This presents a very pretty effect when the lines are so made as to correctly meet those made during the process of removing the wool from the animal's side.

When it is intended that a sheep be shorn the "long" way, or style, the wool is first removed from the head, the wool on the throat is next opened, and the shearer then shears from the windpipe toward the backbone, or vertebrae, rather, of the neck, being very careful to make every line parallel to each other. This process is continued until a series of curves or rings are made, extending from the head to a point at or near the point of the shoulder blade. Having proceeded thus far, the position of the sheep is reversed and the wool removed from the other side of its neck and shoulder. It is then laid down full length on its side, and the wool removed therefrom by a series of skillful, well-directed movements of the shears, commencing at the shoulder and continuing the operation to the stern in shearing the offside of the sheep, and vice versa when shearing the near side of the same. As before intimated, each line should be parallel to each other, and of the same width; this ensures a very artistic and pretty effect. The manner of manipulating the shears in this country differs somewhat from that adopted by expert shearers in the Old Country. Instead of cutting clear through the wool, as is usually done by shearers here, the Englishman uses the shears much as would a lady in cutting out a garment, the shears appearing as if continually gnawing its way through the wool in the place of its being cut entirely through at each clip of the shears. The English mode of shearing not only assures straight, smooth, artistic shearing, but reduces the chances of cutting the animal to a minimum.

In shearing a sheep in the "round way," as in the "long way," it is first "bellyed," and the fleece then removed by shearing entirely around the subject, one-half or side at a time, always leaving every line parallel to each other. Sheep shorn in this way have the appearance of being enveloped in a fine velvet corduroy suit, and look remarkably neat in appearance.

TYING THE FLEECE.

As soon as the fleece is taken off it should be carefully laid on the tying table bright side down, and any dirt, bits of straw, burrs, etc., should be removed. Next it should be packed together in as close and even a mass as possible before being rolled previous to being tied. The two outer edges should be turned over so that they meet together, or even overlap each other a trifle, in the middle of the fleece. It should then be folded in about the same manner as a soldier folds his blanket. In tying a fleece, wool twine only should be used.

Premiums Promptly Forwarded.

Dear Sir,—I received the compass and reading-glass all right, and am well pleased with same. I thank you for your promptness in sending premium.

Yours truly,
Oxford Co., Ont. E. F. CHAMBERS.

We believe in total prohibition of weeds; they are such heavy drinkers, and, like their human prototypes, do a lot of damage to innocent parties.



Washing the Sheep.

THE FARM.

Don't Let the Crust Form.

The great principle in cultivation is to prevent the formation of a crust. This is true, whether we are preparing for spring seeding, cultivating a hoe crop, or working a summer-fallow. Aim to stir the surface promptly after every rain that packs the ground at all, and in a dry time after pretty nearly every rain, for then soil moisture is doubly or trebly precious. This has two primary effects. It conserves moisture and permits free circulation of air through the soil. In a wet season it is worth cultivating more or less for the latter purpose alone. It also serves to keep down weeds, but he who cultivates as much as is advisable to serve the aforementioned two purposes will seldom require to do much extra work on account of weeds. It is because so many of us neglect the important early cultivation which would kill the sprouting weeds, that so many rank weeds are seen in our cornfields, and so much care and laborious effort is necessary to root them out.

Why is cultivation necessary to conserve moisture and permit soil aeration? In primeval conditions nature covers the soil with a layer of coarse vegetable material; under this is humus (vegetable and animal matter, in varying stages of decomposition). This humus is by far the best water-holding constituent in soil composition. King found the following comparison of water-holding capacity in three kinds of soil, when they held as much moisture as they could after several days' drainage following heavy rains:

Sandy loam	3 inches.
Clay loam	3.5 "
Humus soil.....	5.0 "

The coarse layer of undecayed vegetation above acts as a mulch, or as a board partly sunk into the ground, protecting the soil moisture from the evaporating influences of sun and wind above. At the same

time it affords ideal channels for the admission and gradual diffusion of atmospheric oxygen. Man comes along and finds it necessary to raise a large area of crops adapted to produce the maximum amount of human food. To this end he destroys nature's vegetation, and plows up the soil, inverting the layers and bringing the more purely mineral matter to the top. At the same time the humus supply is exhausted by sale of the crops and by frequent tillage, which has the effect of unduly hastening a soil process called nitrification, by which plant food is set free. Were all this unlocked fertility utilized it would not be so bad, but owing to the land being without crop for a part of most seasons, a considerable proportion of the soluble plant food is lost by leaching and washing rain-water. Thus not only does the land lose its protecting mulch of coarse vegetable matter, but also its humus content, the natural storehouse of moisture and plant food. The result is that the soil bakes, especially if it be of clay consistency, and settles together in such a way as to retard seriously the admission of air, without which no plant food can be made available. Indeed, in the absence of air, a reverse process, called denitrification, may go on by which combined nitrogen is set free as a gas and lost to the air, whence it can be recovered only through the agency of legumes, such as clover or peas, and a few minor means. Many a water-logged soil is actually losing valuable plant food in this very way.

CULTIVATION AN ARTIFICIAL SUBSTITUTE FOR NATURE'S PROVISIONS.

Clearly, man, having upset nature's provisions, should do something to substitute them. This can be done fairly effectively with the soil mulch. In order to make the most out of the land, it would be necessary to preserve such a mulch on all our crops, and experience proves that a harrowing or hoeing of grain helps materially to increase the yield. However, the labor in these cases generally exceeds the value of the increase in crop returns, partly because the grain crops make their principal growth in spring and early summer, when there is still a large amount of moisture in the soil, and when, therefore, the ground does not bake so hard as later on in the season. With the



Shropshire Lambs at Grass.

class called hoed crops the case is different. In the first place, these are adapted to grow at spaces which admit of easy and fairly rapid cultivation. In the second place they are enormous yielders, when provided with sufficient food and moisture; in the third place, they make their growth rather late in the season, when soil moisture has been already reduced by evaporation, which continues throughout their season of growth. Such crops must be summer-cultivated to conserve moisture for their use, to permit free aeration, and to keep down weeds which would otherwise rob both plant food and moisture. We hear a good deal of mysterious talk about "cultivating to set free plant food," and even Prof. Roberts, of Cornell University, wrote once about the effect of "hot plowshares" in the soil, but the real logic of the whole science is that cultivation promotes physical conditions of aeration and moisture, favorable, or, rather, necessary, to nature's chemical and bacteriological processes.

Besides being necessary for the elaboration of plant food, moisture is the carrier of the food solutions to the leaves of the plant, whence hundreds of tons per acre are evaporated in a single season.

It is thus apparent how severe is the draft in a dry period, and how urgent the need of restoring the soil mulch promptly after even a light rain. By settling and dampening the soil mulch a light rain may do more harm than good, although a temporary benefit is seen in the freshening of the leaves, owing to the lessening of the rate of transpiration and evaporation while the shower is in progress, and for a short time afterwards.

WHAT CAPILLARITY IS.

Just here, perhaps, we should repeat once more a brief explanation of the natural law or force called capillarity. Capillarity is the attraction of soil particles for the moisture of contiguous ones. It works most powerfully in moderately moist soil, where one portion is moister than another. It is less active between moist and very dry soil, and much less active through a loose than through a firm soil. Capillarity may act in any direction, but on account of the fact that land ordinarily dries out from the surface, the normal movement of capillary moisture is upwards, i.e., opposite the direction of gravity. Throughout the summer this upwards flow of capillary or film moisture—for it exists in the form of films surrounding the soil particles—is continually occurring, and by it the immense amount of water that has soaked into the subsoil during the dormant season is brought near the surface, where it fulfils its various functions in the plant and soil economy. By wise conservation of this subsoil moisture a fairly good crop can be grown even in a hot summer, though not a drop of rain were to fall during the growing season. In practice, however, no one counts on this severe drouth, but a wise farmer makes provision always for the driest season he is likely to have, and aims to conserve as much moisture as possible, by maintaining a very thorough dust mulch. The dust mulch acts as a blanket, similar to the mulch of loose leaves in the forest. The looser and drier and deeper the more effectual it is. Any settling together, or any rain which packs and moistens it, impairs its usefulness seriously, making it necessary to stir the soil again. It is a fine point as to when this should be done. If the cultivator is put through as soon as the ground will work, the resulting mulch is not so dry or loose as if the work had been deferred. On the other hand, in a clay soil the land will soon dry so that when cultivated it will break up into a cloddy surface. Such is an inefficient mulch. Moreover, until the mulch is restored a very rapid loss of moisture is going on, and the sooner the cultivating is done the sooner this is arrested and soil aeration again made free. Practice points to the wisdom of starting the cultivator as soon after each rain as the land will work without puddling and keeping it going at full speed until all the hoe-crop land has been covered. In a dry time, when every ton of moisture is at a premium, a stroke with the weeder will improve the mulch that may have settled after a too prompt cultivation.

By the kind of summer tillage indicated above, good crops of corn and roots may be grown on the stiffest clay. In general, the heavier the land the greater the necessity of, and the corresponding returns from frequent summer cultivation. "Stir the soil after every rain" should be the motto, and while in a showery spell of weather this will be impracticable, the motto is still a good one, for the cultivators should be kept going at every opportunity, and, as a rule, any work done will be amply repaid in the increase of crop. Of course the profit depends largely upon the advantage with which one works. With a slow horse and an old-fashioned scuffler, not enough can be accomplished to make the frequent cultivation profitable. But with long rounds and a fast-walking horse, a man can scuffle one round to the row, from two to three acres in a ten-hour day, according to the height of the corn and the care necessary. With a two-horse cultivator he can do about twice as much. A great deal of time may be saved by using a harrow or a Breed's weeder for the first two workings, and afterwards the weeder may be used alternately with the cultivator till the corn is two feet high, taking out one tooth over each row. The weeder is no good to take out large weeds, nor to break a stubborn crust, but for killing sprouting seeds and keeping crust from forming it is all that the manufacturers claim for it. A man can cover twelve acres a day, and in a soil that has been properly stirred this will do as much good as a scuffing; indeed, more, for the whole field may be covered promptly, and evaporation quickly checked over a larger area.

Cultivation should not be too deep. The first scuffing may be three inches or more, to produce a deep and effective mulch, to open the soil to the later penetration of roots, and to assist free aeration. Very soon, however, the lateral roots branch out into this upper zone and occupy the full width of the interspace. Deep cultivation would then cut off these roots, and to a large extent prevent the plant from feeding in the rich surface soil. The depth of tillage should be, therefore, gradually reduced to not more than an inch and a half, and at the last a mere scratching of the surface is all that should be attempted. "Sending the cultivator down till you hear the roots crack" is a great mistake. Root mutilation is not the object of cultivation. In this connection an experiment in 1902, by Prof. Zavitz, O. A. C., Guelph, is pertinent. He found, as the average of two tests, that deep cultivation throughout the season gave a yield of 23.3 tons per acre; shallow cultivation throughout gave 23.6 tons; shallow cultivation at first and deeper afterwards gave 22.3 tons, and deep cultivation getting shallower afterwards gave 23.9 tons. In southern sections, where drouth is common, there would, no doubt, be a wider difference in favor of deep cultivation at first, and shallower afterwards.

A subject upon which we should like to see some experimenting done is the amount of cultivation that it is profitable to give a crop of corn. From experience in southern and central Ontario, we are convinced that a man should not consider his corn has been sufficiently cultivated unless it has been gone through at least six or seven times. This may seem like a great deal of work, but if one uses his wits he can economize. It is better, for instance, to go once through each space on two occasions than to go twice through it at intervals of double the time. It is better to use the weeder three times than the scuffler once, and it will take less time. It is much better to kill weeds when they are sprouting than to root them out when they are big. It is, in short, necessary to give our hoe crops more thorough summer tillage than most of them get if we are to have clean farms and large paying crops. There are few pleasanter jobs than cultivating a thrifty crop of corn, potatoes or roots, and few that pay better dividends.

Mustard Spraying.

It will soon be time to prepare for mustard-spraying. It has been repeated so often in "The Farmer's Advocate" that spraying with a two or a three-per-cent. solution of copper sulphate, or bluestone, will kill the young plants of that species of mustard known as charlock (*Brassica sinapistrum*), without injuring the foliage of cereals, peas or clover, that it is scarcely necessary to quote experiments again. However, as some have tried spraying, with rather disappointing results, it may be mentioned that, unless the work is done thoroughly with solution of proper strength, and at a time when no early subsequent rain comes along to wash the solution off, the mustard will not all be killed, and a second spraying is necessary. It is also in order to recall the experience of Mr. R. J. Messenger, of Annapolis Co., N. S., who wrote to "The Farmer's Advocate" last summer, protesting that, although he had followed our instructions faithfully, he had found spraying ineffectual. Enquiry revealed that the plant he tried it on was not the *Brassica sinapistrum*, but the jointed or white charlock, wild radish (*Raphanus Raphanistrum*), against which experimental spraying has previously been found of little use. Mr. Messenger is deserving of credit for reporting his result, that the facts could be arrived at, instead of jumping at the conclusion that spraying was of no use. Observations by members of "The Farmer's Advocate" staff convince us that when a man has much mustard in his field, the best thing he can do is to spray, although one is scarcely warranted in neglecting cultural precautions in the hope of curing the mustard evil with a spray pump. As the seeds of charlock, being oily, will lie in the ground for an indefinite length of time—in some cases, it is believed, 30 years or more—the first and greatest effort should be to germinate and kill all the seeds possible, then to prevent seeding by pulling, or, if necessary, by spraying. We have heard of several farmers who are making encouraging progress in cleaning mustard from badly-infested farms, and anyone with a dirty farm is recommended to try this simple plan. Especially is spraying a boon to farmers that have some flat land lying along streams which overflow them, annually bringing down mustard seed from carelessly-tilled farms above. We have seen such fields a mass of yellow blossom, almost crowding out the grain. In such cases, the only thing to do is to spray the mustard, to keep it from seeding and thus getting disseminated over the uplands.

It is usually advised that the spraying should be done after the plants have developed a considerable leaf surface, but before they come into bloom. The point has been disputed, however, by one man, who claims that it is better to defer till the blossoming stage, so as to kill more of the young plants coming on. The work should be done on a calm, bright day.

To prepare the solution, dissolve nine or ten pounds of bluestone by suspending it in a coarse bag in about three gallons of boiling water; the crystals should all be dissolved in about fifteen

to twenty minutes. Strain the solution into the pump barrel, and fill with cold water to make forty or forty-five gallons. This quantity will usually treat an acre. Where a large area is to be covered, a "stock solution" of bluestone may be made by using a definite number of pounds of bluestone and a corresponding number of gallons of water. This may be hauled to the field in a barrel and the water drawn in a tank, and kept at the end of the field. If a pond is adjacent, the pump barrel may be filled there. The spray may be applied with an ordinary barrel pump. Place in a cart or light wagon, and drive slowly through the field, holding the nozzle so that all the mustard will be well wet. The bamboo-rod attachment will do the work, but not so rapidly as the horizontal extension-rod, mustard-spraying attachment fitted behind the cart or wagon. The spraying-machine companies manufacture special apparatus for this purpose. For instance, a power-sprayer (driving the rod from the wheels) which has an extension rod with ten nozzles, covering a width of about 18 feet at each time across. With this, it is estimated that, when the water is handy, a man to prepare the chemicals, a boy to drive, and one horse, can spray about forty acres per day, which, allowing good wages, would amount to about ten cents per acre for applying. Good bluestone may be purchased in quantity at approximately six cents per pound, or fifty-six cents per acre. Allowing a little margin, however, we might estimate total cost of labor and material at 80 cents per acre. If an ordinary four-nozzle machine were used, the expense for labor would be a little higher, perhaps 20 cents, instead of 10. The cost of a complete ten-nozzle power outfit would run up to \$85 or \$90. An ordinary hand pump, with necessary brass parts and eight nozzles, for mustard spraying, could be procured for, say, \$32 in round figures; a similar outfit with four nozzles for about \$23. A group of farmers in mustard-infested districts might co-operate in the purchase of a power outfit, or, better still, a man might get one and hire it out to his neighbors for so much per acre. The equipment would be useful for spraying potatoes, as well as mustard. Lacking a power pump, however, there is no reason why ordinary hand pumps should not be put into service by attaching a four- or eight-nozzle brass row sprayer.

It is an advantage to have a horse-power machine for large plots. These are made with from four to twelve nozzles, covering 22 feet, each nozzle covering 22 inches, and are made with 40-gallon casks or 80-gallon tanks. Some makers arrange their machines to work entirely automatic, as to throwing in and out of gear, this being done by the pressure. The cask is an advantage for hilly or very soft ground. Combination rigs are also made to spray potatoes, vineyards and orchards.

Buckhorn or Ribgrass Not Poisonous.

Thomas Noran, New Brunswick, writes, sending a sample of Ribgrass Plantain, and asks if it is poisonous. He had some yearlings sick, and lost one. The plant sent was taken from the hay which was fed to them, and he thought it might be the cause of the trouble.

Answer—The plant sent is the Ribgrass Plantain, also known as Buckhorn. It is in no way poisonous. Indeed, it is actually sown in meadows and sheep pastures in England and Scotland, on account of the palatability of the leaves to all kinds of stock, but particularly to sheep. Most of the cases of poisoning among cattle at this time of the year are due to the animals eating the young shoots and roots of the Water Parsnip. This plant grows in low land, and has a thick root, with much the smell of carrot or parsnip. It is intensely poisonous, and, unfortunately, is very attractive to cattle early in spring, when there is very little other fresh vegetation. If your pasture is on low land, or has a stream running through it, it would be well for you to keep your animals on high land, where the Water Parsnip does not grow, until the middle of June, by which time the poison is much dissipated, and the plants would be more firmly rooted, and therefore less likely to be pulled up so that the roots can be eaten. There is, of course, also by that time an abundance of good grass, so that the animals would be less likely to eat the Water Parsnip.

Ottawa.

JAMES FLETCHER.

Lucerne Does Not Winter-kill on the Hillside.

A writer in the New England Farmer gives in detail his experience with alfalfa in Massachusetts. He has met with difficulty from winter-killing, or rather spring-heaving, on the level lands, but has been very successful in seeding steep hillsides, always applying about 30 bushels of lime per acre. He concludes with advice to sow the hillsides, rather than the foothills and lowlands, thereby securing the sine qua non, adequate surface drainage. His experience on this point tallies precisely with our own. Lucerne for the hillsides; rotation on the level land.

The Turnip Aphis.

Although this serious enemy of the root-grower did perhaps not quite so much harm last year, in most parts of Canada, as is sometimes the case, nevertheless some fields were very much injured, and the crops of others practically ruined. The turnip aphis attacks not only turnips, but also cabbages, and is particularly destructive to cauliflowers. The usual remedies recommended for plant lice of all kinds, such as soap washes, etc., will answer for this insect also, when they can be applied, as, for instance, in the case of cabbages and cauliflowers grown in gardens. For turnips, the two remedies are: (1) The prompt treatment of the colonies which may be found on young turnips about the time they are being thinned in July and August. This may be done either by hoeing out the plants which are affected and tramping them underfoot, or, if they have spread over two or three rows, probably the easiest way is to spray them with a knapsack sprayer, using the ordinary kerosene emulsion (1 to 9) or a whale-oil-soap solution, one pound in five gallons of water; and (2), the destruction of the eggs in autumn. It is particularly this line of attack which I wish to draw the attention of turnip-growers to at the present time. I have found that the eggs are laid in large numbers beneath the leaves of turnips late in autumn, and when these leaves are left on the field, as is often the case, the eggs hatch in spring and attack any plants growing near their hatching-place. When root crops are taken in, therefore, it is important either to turn in stock to feed on the turnip tops, or, if this is not convenient, to have these plowed down deeply in the autumn, so that when the eggs hatch in spring they will be unable to reach plants which they could injure. I need hardly point out to Canadian farmers that turnips or cabbages should not be grown on the same land two years in succession.

JAMES FLETCHER,

Ottawa. Dom. Entomologist and Botanist.

Pasture the Clover-seed Field.

Though well known in seed-growing districts, it is not so well understood in some other sections that the best way to get a good crop of red-clover seed is to pasture the first crop until about June 20th, or else mow it very early, depending on the second crop for seed. This has been found necessary to combat the clover-seed midge (*Cecidomyia leguminicola*), a small, legless, pink maggot which eats out the contents of the clover pod, and thus destroys the seed. It has been the cause of very serious loss in all parts of Ontario where clover is produced. There are two broods in the season, corresponding with the two crops of clover seed. The eggs are laid in the forming flower-heads of the clover; when these hatch, the maggots penetrate the seed-pods. When the larvæ are full-grown, about the end of June, they leave the clover-heads and enter a short distance into the ground to pupate. The perfect insects forming the second brood, emerge from the ground just as the second crop is coming into bloom, and the females at once begin to lay their eggs amongst the forming blossoms. These eggs soon hatch, and about the time the seed is ripe the maggots leave the clover, and enter the ground to pass the winter, whence they emerge again the next spring just about the time the clover comes into flower. Feeding off or mowing the first crop of clover before June 26th destroys the immature maggots, which naturally reach full growth about the end of June, and from which the next brood, which attacks the seed of the second crop, is produced.

New Lines of Farmers' Institute Work

In several States of the American Union, notably Tippecanoe Co., Indiana, the County Farmers' Institutes have introduced the feature of competitive exhibits of farm products raised by boys and girls. The exhibits may consist of any kind of farm and culinary products. The County Fair Association has been brought into co-operation, offering liberal premiums. The age limits are 10 and 18 years, and the only stipulation is that competitors be residents of the County, and be members of the Institute or Homemakers' Association.

Our own Institutes might find such competitions as well as plowing matches and summer field and orchard meetings a needed means of renewing the interest of those who have tired of the cut-and-dried programme of winter meetings. In New Brunswick very useful field demonstrations have been given, illustrating different methods of cultivation and various styles of implements not commonly known in given localities.

"The crop of potatoes will usually increase in proportion to the number of times the potatoes are cultivated during the growing season," says W. T. Macoun, of the Experimental Farm, Ottawa, in his bulletin on potato culture. "There was found to be an increase of 40 bushels per acre in a crop cultivated six times over those cultivated three times."

Training Roadmakers.

Editor "The Farmer's Advocate":

In response to your invitation to readers of your paper for opinions on the subject of road-making, I will give you my views on the matter, which I hope may be worthy of acceptance and space in your columns.

I have for a long time taken much interest in good roads, and have, on different occasions, expressed my views in the local press, but fear they were either unsound or not appreciated, for certainly, so far as any results are apparent, I might as well have kept silent. However, I am not discouraged, for some word of mine may be a seed to fall on good ground, and may grow and bear fruit.

Is it not a remarkable thing that, while in Europe, though I own I have not been to see them, the roads should be reputedly kept always in a state of perfection, in Canada there seems to be hardly any such thing as a good road? Now, one might suppose that, in these enlightened times, when so many people travel in foreign countries, it would be impossible for the inhabitants of, say, France, Germany or Britain, to conceal from Canadians their method of road-making, yet such is clearly the case; otherwise some improvement would speedily be seen in our own roads. Undoubtedly, some of our engineers have visited the countries named, as well as others where the highways are regarded as of sufficient consequence to enlist the best energies and talents of eminent men; but if any from this country have discovered the secret, they appear to be carefully guarding it. An engineer who is interested in the subject, expressed his belief to me that there were not three of his profession in Canada who were masters of that branch of engineering. If that be the case, how can we expect much improvement?

One day recently I drove through the Q. V. Niagara Falls Park, and noticed the building of a new piece of roadway therein. An excavation of about a foot was made, into which was put a quantity of stones, the average weight of which would probably be from 10 to 15 pounds, and over that was spread a layer of gravel and earth taken from an old gravel walk nearby. I don't know what the next course is to be, but whoever is responsible for such work should not have to wait for a change of Government to lose his job. There is a Government park, with an income of a good many thousand dollars a year, employing some ignorant pretenders to do a piece of work that should be in charge of a competent engineer. In the City of Niagara Falls may be found as fine examples of how not to make roads as one could wish to see, and the thousands of dollars annually spent on the streets is a clear waste of money, for they are little if any better than they were forty years ago. Ask half a dozen men of average intelligence for their opinions on roadmaking, and it is safe to say you will get as many different replies. There is more or less agitation throughout the country for better roads at the present time, and perhaps some good may come of it, but it seems to me, to get at the root of it, we must have men trained in the work, and the Government can do no greater service to the country than by having the subject taught in the School of Practical Science, for if we have to depend on municipal councillors, it will be a long time before we are out of the rut we have been in for generations.

E. W. TENCH.

Welland Co., Ont.

[Note.—It seems to us that for the attainment of speedy and satisfactory results, the subject of road-making and maintenance should be taken up at the Ontario Agricultural College in a systematic and comprehensive manner. At this institution we have assembled hundreds of young men who are going out every season to be leaders of agricultural and municipal life in their respective communities, and a thorough training in the principles and practice of roadmaking could not but prove of incalculable advantage in the good-roads movement.—Editor.]

Not Afraid of His Windmill.

Editor "The Farmer's Advocate":

In answer to the farm-power letter in your May 3rd issue, we differ with the writer on that question. We think the windmill the most suitable power for any average-sized farm. We grind about two thousand bushels of grain per year with one set of plates, and pump all the water for the stock with the one mill. It grinds chop as well as it would be done at a regular mill. We also cut the straw. In our experience, it is not a very expensive outfit to run, being now about twelve years in use, and no worse for wear than any other machine. As far as running away and causing fire, I think it is pure imagination, as we never heard of one doing so. Perhaps your Ontario Reader had better tether his, and make sure. I am afraid I am taking up too much space in your valuable paper. Wishing you every success, we close.

NORTON BROS.

Grey Co., Ont.

THE DAIRY.

The Milking Machine Again.

Those who read in our issue of Feb. 1st the experience of Primrose McConnell, a leading British agriculturist, with the milking machine, and, in our last issue, the reply of a firm manufacturing milking machines, will follow with interest Prof. McConnell's retort, which appears in the British Agricultural Gazette, the paper to which the previous correspondence was addressed:

"I expected a letter such as Messrs. Fleming & Co. have written, though like the Royal Chairlie, it has been 'lang o'comin'.' I do not intend to waste time carrying on a controversy, but some statements of theirs on the use and effects of the milking machine, and some insinuations they make, require a reply from me.

"The gratuitous balderdash about 'exercising my skill on machinery of which I know but little,' is quite unnecessary. The inventor himself came to see the thing at work in my case, and I had the latest modifications and improvements that came out, until I gave it up. If it was not the machine that reduced the milk yield, then what was it? I kept it going over two summers, and found there was no chance of improvement, while the labor and expense connected with it would swamp it, even if it milked the cows efficiently.

"Messrs. Fleming & Co. insinuate that my cows were not quite the kind to suit a machine, and that they were inferior anyway, and therefore could not yield well. First, may I ask what is the use of a machine if it will only milk selected animals, and is not able to tackle an ordinary average herd as it stands? Secondly, in what way is, or was, the yield of my cows inferior when hand-milked? Messrs. Fleming & Co. seem to be getting out of their depth on this point, as the following figures will show: The average yield of the cows of the British Islands is computed at 450 gallons per head; the average yield of twelve herds of Ayrshires, given in the volume of the Highland Society's Transactions, just issued, is 531 gallons, the lowest being 468, and the highest 707 gallons. Now compare these with my own figures: With the exception of the time when the milking machine was in use, my records over nearly 20 years have never shown less than 600 gallons per head per annum, and on several occasions over 700—good and bad taken together, without any special selection, and I believe the average to be about 650 gallons. What is the sense, therefore, of saying that my cows were not good subjects for trying the milking machine on, as far as milk yield was concerned? Messrs. Fleming & Co. give the results obtained with 25 cows belonging to Mr. Clement, at Netherwood. I always understood that there were between 30 and 40 cows at that farm, but, in any case, if those figures are correct, they average 920 gallons per head. I have no hesitation in saying that these are the most remarkable cows in the whole earth, for I am an Ayrshire man myself, and have handled Ayrshires all my life—have got some in my herd now direct from Ayrshire—and I never heard of such tremendous yields before. To speak plainly, however, may I ask Messrs. Fleming & Co. what good purpose they propose to serve by publishing a lot of figures like these, without a hint of the real facts of the case? I see that this herd is one of those included in the Highland Society's tests, and if they base their table on these tests, then they have omitted to say that the gallons per head are reduced to a standard of 3 per cent. of fat; that is, the milk is analysed, and then the gallons are computed on the basis of watering the milk down to 3 per cent. of fat. In this way, therefore, their reputed 920 gallons comes down to about 700 per head of actual yield, while if they will include the weaklings and heifers—as I did—it will bring their average down to mine.

"The main point of the whole matter is, however, the fact that my cows gave about 250 gallons less milk with the machine, per annum, than by hand, and that when we dropped the machine and went back to the hand, they got up to their old yield in about three months' time again; and that even if the apparatus had been a success as a milker, the trouble and expense of running the same was prohibitive. The very boiler itself gave out in two years' work, and needed new tubes in it, as I continued to use it for steaming purposes after taking down the milking apparatus.

"Looking at the fact that the string binder too, fifty years to perfect, and is now a success, it may be possible to yet perfect the milking machine, but I cannot help remembering that it is now well on to sixty years since patents for milking machines were first taken out. No one will rejoice more at the success of the milking machine than myself, because all my life I have been eager to see and try new and improved machinery and methods of doing work and saving labor; but, after my own experience, I shall take a lot of convincing in the matter of successful mechanical milking, and will let other people develop it for a long time before I touch it again."

The cultivator, light harrows or the Breed weeder is the best watering pot for a growing crop.

Cow-testing in Brockville District.

The following is the result of the testing under the Dominion Dairy Commissioner's Branch, in the Brockville District Association, for three thirty-day periods, ending with the close of February, March and April. A record of over 54 pounds of butter-fat is a striking example of what some cows will yield, and should encourage all dairy farmers:

No. of Cows.	Month.	Average Yield per Cow.		
		Lbs. Milk.	Test.	Lbs. Fat.
5	February	1435	2.9	42.9
7	March	1109	3.2	35.6
2	"	1901	2.9	54.4
1	"	855	4.2	35.9
4	"	507	3.5	18.0
14	Average.....	1032	3.2	33.3
10	April	853	3.0	26.0
8	"	1271	2.9	36.9
11	"	749	3.4	25.9
8	"	886	3.2	28.6
5	"	672	3.2	21.5
3	"	683	2.9	20.0
3	"	803	2.9	23.7
1	"	830	3.3	27.3
6	"	838	2.8	24.0
50	Average.....	828	3.1	25.9

The Scotch to Breed Ayrshires for Milk.

"Slowly, but surely," says the Scottish Farmer, "is coming the Ayrshire dairy cow, which pays not by winning a prize for fancy vessel and teats, but for yielding a profit to the dairy farmer. The day has been long in coming, and even yet it is but grey dawn, but the demands of the Canadian, who means business, and the operation of the milk standard, are teaching the Scottish dairy farmer that his so-called milk stock, with the tight vessel, short teats, and make-believe body, is not necessarily the kind which gives milk and yields most profit. We are told that some of the more prominent patrons of the milk-stock section are opposed to the milk-record scheme; when it was applied in some such stocks, it proved how illusory was the idea of securing profit from cattle having only fashionable vessels and teats to recommend them.

"Many show animals in this country will be of no use whatever for the Canadian Advanced Register, as they are not pedigreed in the right sense. A right pedigree includes both herdbook ancestry and ancestry with a milk record for several generations. In view of these things, it is necessary that the believers in the milk-record scheme should bestir themselves. If they desire a continuance of the work which has been going on during the past few years, they must not be caught 'napping.' There is a strange glamor about the show-yard, and the honors secured there cover a multitude of commercial defects. The tyro may be taken in by a first-prize ticket, but a man who means business wants to see the milk record."

The editorial concludes with a reference to the application of the tuberculin test by Canadian importers of Scotch stock, clinching a well-grounded appeal to breeders with the hard-headed reflection:

"Whatever may be said by way of adverse criticism of the tuberculin test, the stubborn fact is before us that foreign and colonial buyers believe in it, and their trade is worth cultivating. Scotland has splendid herds, flocks and studs, but she cannot dictate to the world. If the advantage gained is to be improved on, she must, in respect of milk records and testing, lead, and not follow."

Bulletin Board at Creamery or Cheese Factory.

Editor "The Farmer's Advocate":

A recent correspondent in your paper suggests having name of each farm on road gate or post, and also advertising any farm produce thereon. For the latter purpose, I have often thought it would be a good plan to have a large black-board, or something similar, placed under cover on the front of a creamery or cheese factory (which is generally situated at some public place), where any animals or produce could be reported for sale, for the convenience of the patrons. Traders, farmers, etc., wanting anything of that kind, could see in a minute where it could be obtained in that vicinity.

Two Mountains, Que.

W. A. OSWALD.

In 1905 four creameries in Saskatchewan turned out more butter than twelve did three years ago. In 1905 about one and a half million pounds of dairy butter was marketed in Saskatchewan towns, and about a quarter of a million pounds of creamery butter was made. At the average prices, the makers of dairy butter were out one and a half cents a pound for labor, tubs and salt.

The Use of Lime in Danish Creameries.

The Danish creameries, which years ago practiced the "steaming" of all churns, cream barrels, and other wooden utensils, regularly, in order to keep them sweet and pure, says C. Marker, in the Dominion Department of Agriculture Bulletin, on "Some Phases of Dairying in Denmark," now simply scrub them in hot water, and while the surface is still warm apply with a brush a generous coating of thick lime wash, which is partly absorbed by the pores of the wood, purifying and making it bright and firm. The surplus lime is afterwards washed off.

In fact, lime takes the place of washing soda, being much superior for cleansing purposes, and a great deal cheaper as well. Lime removes grease and sour smells from floors and utensils, makes tinware brighter, and the grain of the wood firm; bright and close. All articles used in preparing fermentation starters are kept submerged in a barrel of clear lime water when not in use.

Lime has no superior for removing oil or grease from floors if applied in a fairly thick layer, and left on for a few hours.

The by-laws of some creamery associations recommend strongly to the patrons to use lime instead of soda for washing their milk vessels, as well as for whitewashing stables, milkhouses, etc.

POULTRY.

A New England Poultry Farm.

Theoretical poultry-farming seems to have a peculiar fascination, and perhaps more theory, with less practice, has been written about poultry-keeping than any other industry.

It is refreshing to be able to visit a poultry plant that is run by a practical, up-to-date man. Of all such plants I ever visited, the poultry farm—or ranch, as it is called in Connecticut—of Mr. Tillinghast, of Vernon, is the most practical. A few of the ideas in operation in his plant might be of interest to your readers.

By way of introduction, I might say that Mr. Tillinghast is a keen, intelligent Yankee, a man who for the last twenty years or more has been a poultryman. I don't suppose there has been in that time a hen theory that Mr. Tillinghast has not tried. He has had breeds from the Cochins to the Bantams; houses from the house heated by a furnace to the open-front, houses hundreds of feet long, and houses only large enough for one pen; yarded runs and free range, incubators and brooders of every description; he has fed hot mash and cold mash, dry mash and wet mash, dry-grain ration and no grain at all; he has fed four and five times a day, and he has fed once a week; watered twice a day, and not at all; he has cleaned his houses once a day, and he has left them two years without cleaning. In fact, there doesn't seem to be any extreme that Mr. Tillinghast has not experimented with, so the methods followed at present should have no little experimental value.

Though these extremes have been tried, Mr. Tillinghast is not an extremist, but a practical man who makes the most money with the least possible outlay, and from his farm he is making an income that many business men might envy.

His ranch contains about 100 acres, and is divided by roads into three sections, one section at the home, of about 20 acres, which is his rearing ranch; one across the road of about the same size, his Brown Leghorn ranch; and the other, of about 60 acres, the White Leghorn ranch. His business is supplying fresh eggs to the Boston and other markets. He does not keep "oreo shop," nor does he allow visitors to roam at will over his ranch. In fact he has signs up, plainly stating than anything, especially men and dogs, found trespassing will be shot on sight, and that he means a good deal of it is evidenced by the fact that on no consideration would he allow me on the plant until a certain day, necessitating my stopping in the State two days longer than I intended. Still, when one sees how careless the average visitor is about gates, doors, etc., one cannot blame this manager for doing what many practical poultrymen wish they could do.

One of the first things that strikes you as you start out on the rearing ranch is the number of expensive, continuous henhouses that are empty—houses that must have cost \$5 or \$6 for every hen they would accommodate. It doesn't pay him, he says, to use them now, and he is going to tear them down. His incubator house is all above ground; in it are about twenty-five large machines. The ordinary incubator lamp is discarded, and in its place is "The Tillinghast" lamp. As these lamps are used altogether both with incubators and brooders, a description might be in place here. An ordinary pudding dish holds three or four quarts is taken, and over it is turned a tin pie plate, just large enough to fit flange. Two holes are made in this plate, one in the center, into which the burner is soldered, and the plate is then turned over the dish, and two drops of solder dropped on at either side to hold in position. A special burner is used, without a

chimney. The advantages of this lamp are twofold, cheapness and size, it requiring to be filled only about once a week. His brooders are made much after the patterns of the first brooder made by Mr. Hare, and used at the Poultry Stations—a box with a zinc top, under which is the lamp, and over which is the hover. On this box there is only a board high enough to keep the chicks in, and no top, so they have an abundance of fresh air. These brooders are placed in colony houses, which in turn are placed in the orchard of small fruits.

As soon as the chicks are a few days old they are fed out of a small hopper, into which is put screening wheat. In this wheat is a slight mixture of flax, buckwheat, cracked corn and other seeds.

The care, even with very young chicks, is comparatively light, as the lamps and hoppers need refilling only once a week. The chicks are kept here until the small fruits are getting ripe, when the cockrels are taken out, and all but the best sold as broilers. The pullets are removed to the laying ranch, where they grow up with other hens.

Going to the White Leghorn ranch, which is Mr. Tillinghast's peculiar pride, you find sixty acres without an inside fence. About 2,000 laying hens are housed in colony houses, 50 to 100 to each house. The houses are 10 feet by 20 feet, with roosts at the west end, and the windows in the south side. The house is made of single sheeting, battened, and costs less than 50 cents per hen. Along the north wall is a row of nests. On the left of the door is a hopper, into which the feed is put once a week. This hopper is simply an old box, made so the grain will feed into a trough out of which the hens eat. A small hopper holds a supply of meat meal, grit and oyster shell. There are no fountains or dishes for water; a small spring creek running through the farm supplies the hens with fresh water. In the winter, when the snow prevents the hens getting to the water, they eat snow. All houses are situated so that a horse and wagon passes each in a single trip, and the only daily visit that is made is about 4 or 5 p. m., when the eggs are gathered with a man and wagon. Exceptionally cold nights a little corn is thrown in the litter as the eggs are gathered. Once a week grain is brought along and hoppers replenished.

In the 3,000 or more hens on the farm, there was not one that was not in the pink of condition. To look after his whole plant he had only one boy that he paid less than \$15.00 per month and board. Last year his hens netted him an average of \$1.00 profit. He thinks that on the land he has he could handle 5,000 laying stock with the same help.

The colony houses seem pretty small for the numbers they accommodate, but this system gives so much fresh air that it is practically outdoors, and, while the temperature goes as low as 26 below zero, very few frosted combs were seen.

Leghorns, as a rule, are not considered the hardest fowl, but those seen here, both White and Brown, were apparently quite hardy, largely owing to the fresh-air treatment they had received for several generations.

My visit there was most interesting, and though all the ideas adopted may not be practical for a Canadian farmer, there might be some good lessons learned.

The Preservation of Eggs.

For eight successive seasons experiments have been conducted in egg preservation by means of various fluids, formulae of which had been collated from many sources. Three years ago we concluded that of the large number of solutions and chemicals under trial, two only, viz., lime water and sodium silicate (water-glass), were worthy of further investigation, and we also stated at that time that of these two preservatives lime water was from every point of view the more satisfactory. The examination of the eggs preserved in 1905 furnishes still further evidence in favor of lime water. The salient points in this last test may be given as follows:

Thirteen months ago (April, 1905) non-fertilized and fertilized eggs were put (a) in lime water, and (b) in five per cent. solution of water glass, the containers being stoppered bottles. These were kept throughout the whole period in the laboratory, at temperature averaging possibly about 65° F. The eggs were examined May 1st, 1906.

Lime water Non-fertilized Eggs.—The "white," compared with that of freshly-laid eggs, was very faintly tinged with yellow, and somewhat more limpid. The "yolk" was globular, and of normal appearance. There was no adhesion of yolk to the side of the shell, and no mixing of yolk and white in cracking the egg preparatory to poaching. Every egg opened was sound and usable. Several of these eggs were poached, and not one of them developed any markedly unpleasant odor or taste, though the pleasant flavor of the newly-laid egg was not present. In the opinion of some examining the poached eggs, the flavor was pronounced as "slightly stale or limey."

Lime water Fertilized Eggs.—The tinging of the "white" was somewhat more pronounced than in the poached "Yolk," globular, and of good color; no marked odor. Though all the eggs examined were sound and usable, they were distinctly inferior, both before

and after poaching, to the non-fertilized eggs in the same preservative.

Sodium Silicate (water-glass) Non-fertilized and Fertilized Eggs.—The "white" of these eggs is of a distinctly pinkish-red color; the yolk thin, discolored and degraded. On cracking the egg, preparatory to poaching, it was found impossible to prevent the mixing of the white and yolk. From fifty to seventy per cent. of the eggs examined might possibly be used for cooking purposes; certainly thirty per cent. were thoroughly bad and totally unfit for use as food in any form. The slightly "alkaline" taste and odor, and the distinctly disagreeable appearance of even the best of these eggs, would entirely prevent their use on the table. No difference of any moment could be observed between the fertilized and non-fertilized eggs in this preservative.

FRANK T. SHUTT,

Chemist, Experimental Farm, Ottawa.

"The Farmer's Advocate" gives a great many useful hints about poultry, and we find it a very interesting paper.

F. ANDERSON,

North York, Ont.

APIARY.

A Bumblebee Apiarist.

Mr. Frank Kelly, Elgin Co., Ont., is a farmer who makes a specialty of sheep and clover seed, and also keeps bees. To "The Farmer's Advocate," recently, he described an ingenious system of ensuring the fertilization of the red-clover blossoms. He pays the boys of the neighborhood 25 cents for every bumblebee's nest they locate for him. This he then moves to his own premises. He inverts over the nest a funnel-shaped screen, with a small hole in the top leading into a little box. By stirring up the bees he gets them all into the box, and then takes up the nest, and transports bees and all to some convenient spot on his farm. In this way he has almost "cornered" the bumblebees of his neighborhood. In winter he protects them from mice by putting over the nest an oblong hardwood box, say 20 inches long by 10 or 12 inches wide, and the same height. A small hole, protected by a piece of tin to prevent mice gnawing it larger, permits egress and ingress of the "king bee." As a result of his pains, Mr. Kelly grows large fields of clover seed, averaging four or five bushels per acre. Those living near him get good crops of seed.

Mr. Kelly related an interesting experience of one year when he had pastured with sheep a field of red clover, taking the sheep off June 15th. The second crop blossomed beautifully, and neighbors declared it the finest they had ever seen. It was, however, a little too early for the bumblebees, and no seed worth mentioning was secured.

Spring Notes.

Don't "spread brood" until you have been keeping bees and working with them for ten years. There is not much likelihood of your doing a great deal of it after that time. There are cases where it can be done to advantage, but even an old hand misses his guess on it sometimes (especially if he tries it before the first of June), and a beginner is almost sure to make blunders. Let the brood nest alone this time of year, unless something seriously wrong in it.

To stimulate brood-rearing, lift a comb of sealed honey out of one side of the hive and bruise the capping with a flat knife or something, to make the bees take it up fast and move it into the brood nest. Do this every few days, unless honey is coming in well from the fields. If there isn't a comb of honey in the hive, put one in if you can get one.

Keep the entrances small until settled warm weather, which seldom comes before the end of May.

To find the strength of a colony, take out a side comb, and move the others one at a time until you come to the first one containing brood. Then shove that side together, and look in the other side the same way. You know that all the combs between the two outside combs containing brood have brood in them. It isn't necessary to pull them out to look at the brood. Let them alone. Remember, it is the amount of good healthy brood, at this time of year, more than the number of bees in a hive, that indicates strength; and the less the brood is handled, the better for its general health.

If you run across a hive containing a drone-laying queen, hunt her out and kill her, and unite her bees with a good hive a day or so later. If a colony is queenless this time of year, destroy their cells, if they have any, and unite. It is a mistake to try to run more hives than you have bees and good queens for.

Don't try to raise queens in May, unless you are an expert. An expert knows better than to try in this climate.

A colony with brood on six frames at the middle of May this year is a good one. A five-frame brood nest is pretty good; a four-frame one is fair. Anything smaller will probably require help to get ready for clover.

Don't waste time fiddling with very weak colonies. Get busy with the medium ones, and soon

them up strong. It isn't the number of colonies in the apiary that indicates what the honey crop will be, but the number of strong ones. It is the big ones that do the work. The weak colonies' part in the proceedings consists in pulling down the average yield per colony.

If any colonies died in the winter, get the combs and hives cleaned of dead bees as soon as possible. The longer this work is delayed, the more injury it does to the combs, and the more disagreeable it is to do.

And don't forget to be ready for the honey crop and swarming when they come, for they won't wait for you.

E. G. H.

GARDEN ORCHARD.

Cutworms: Life-histories and Remedies.

In spring, as soon as the seedlings appear above the ground, or annual plants are set out, many are eaten off at the surface by dull-colored caterpillars, from half an inch to an inch and a half in length, which come out at night and devour almost all kinds of young vegetation, cutting it off as described above, and often dragging part beneath the surface, where they lie hid during the day.

Cutworms are the caterpillars of active, dull-colored moths belonging to the Noctuidæ, or Owllet moths, of which there are upwards of four hundred different kinds in North America. These moths are much alike in shape and in the arrangement of the more noticeable markings, and are, for the most part, dull-brownish or grayish moths about 1½ inches across the spread wings, which hide by day like the larvæ, and fly only by night. The moths begin to appear about the middle of June, and fly till the end of the season. Most of the kinds are single-brooded, the caterpillars passing the winter half-grown, and doing most damage to vegetation in spring.

The caterpillars of the different kinds are, on the whole, very similar in appearance and habits, being smooth, greasy-looking caterpillars, of some dull shade of color similar to the ground in which they hide during the day. Their habits are almost always nocturnal; but when they occur in large numbers, they feed by day as well as by night, owing to the reduced food supply consequent upon their ravages.

The eggs from which cutworms hatch are laid by some species in the autumn, and by others in the spring or summer. As a consequence, cutworms of all sizes can be found in the spring; for these insects, according to the species, may pass the winter as a perfect moth, a chrysalis, a partially-grown caterpillar, or an egg. The ravages of the young caterpillars, which hatch in the summer and autumn, are seldom noticed then, on account of the abundant vegetation at those seasons. In spring, however, not only are the caterpillars much larger and capable of more mischief, but the land is then clear of all weeds and vegetation other than the crop, and when the cutworms come from their winter retreats, there is nothing for them to eat but the farmer's early crops. Cutworms are particularly troublesome in gardens, cutting off young cabbages, tomatoes, beans and annual bedding plants. When the caterpillars are full-fed, they burrow into the ground to a depth of a few inches and turn to brown chrysalids inside a smooth cell or a light cocoon.

Injuries by cutworms in most seasons may be expected to stop by the end of June, but different species vary in the time they stop feeding, and the knowledge as to the exact species which is destroying a crop is frequently of great service to a farmer, so that he may know when the caterpillars are full-grown and what their habits are, and thus know for certain when it will be safe for him to resow his land which has been ravaged by these insects. Some of the early-maturing species, as the Black Army-worm (*Noctua fenicia*), which frequently strips clover and pea fields early in the spring, stop feeding early enough for it to be safe for the farmer, in many instances, to apply no remedy whatever. The caterpillars, when full-fed, burrow into the ground, and the crop springs up again, frequently catching up and showing no diminution in the yield. Thus, a farmer who knows the habits of the insect, is saved from going to the trouble and expense of applying a remedy. Other species, however, mature so late in the season that it would be unsafe and unprofitable to resow the land without special treatment to destroy the cutworms.

REMEDIES.

(1) **Clean Farming.** The keeping down of all weeds and the burning up of all haulms, stems of reaped crops and refuse, as early as possible in the autumn after crops are reaped, will destroy many eggs and prevent the deposition of others by presenting no suitable place for the moths to lay their eggs. The eggs are laid in autumn or spring, and such places are chosen by the moths as where there will be an abundance of food for the young caterpillars on hatching.

(2) **Traps.** Large numbers may be destroyed by placing between the rows of an infested crop,

or at short distances apart on infested land, bundles of any succulent weed or other vegetation, which has been previously poisoned by dipping it, after tying in bundles, into a strong mixture of Paris green, one ounce in a pail of water. The cutworms eat the poisoned plants, then bury themselves and die. In hot, dry weather these bundles should be put out after sundown, and a shingle may be placed on each to keep it from fading.

(3) **Banding and Wrapping.** (a) It will be found to well repay the trouble and expense to place a band of tin around each cabbage or other plant at the time of setting out. These may very easily be made by taking pieces of tin 6 inches long and 2½ wide and binding them around a spade or broom handle, so as to form short tubes. In placing them around a plant, the two ends can be sprung apart to admit the plant, and then the tube should be pressed about half an inch into the ground. I have found this a useful means of disposing of empty tomato and other cans. To prepare these easily, they need only be thrown into a bonfire, when the tops and bottoms fall off, and the sides become unsoldered. The central piece of tin can then be cut down the center with a pair of shears, and forms two tubes.

(b) Wrapping a piece of paper around the stems of plants when setting them out, will also save a great many.

Hand-picking, or digging out the cutworm wherever a plant is seen to be cut off, should, of course, always be practiced.

(4) **Poisoned Bran Mash.** The most remarkably effective remedy against cutworms is the poisoned bran mash which has come into such wide use. This is made by mixing half a pound of Paris green with fifty pounds of slightly-moistened bran. In making this, it is best first to dampen some of the bran slightly with water containing a little sugar. After mixing thoroughly, add the Paris green by dusting it on the surface, and stirring all the time. We have found that when Paris green is added to perfectly dry bran, owing to its weight, it will sink to the bottom when stirred, in the same way that it does in water. Half a pound of Paris green is enough to poison fifty pounds of bran, although double this amount may be used. If the mixture is too wet, more dry bran should be stirred in, until the mixture will crumble easily and run through the fingers without adhering.

When required for garden use, all that is necessary is to sprinkle a little of the poisoned mixture by hand around such plants as are liable to attack. When crops are planted in drills or rows, a convenient way is to make the mixture rather dry, and then distribute it by means of a wheel seeder. In field practice, among such close-growing crops as standing grain, which are sometimes injured by the Red-backed Cutworm, the poisoned-bran remedy is also serviceable. The mixture can be distributed by means of a paddle or shingle, and can be thrown easily to a distance of twenty feet. When distributed in this way, there is much less danger of chickens and birds picking it up than if it is placed in lumps.

Danger. The question of danger from the use of poisoned bait is one which must be considered. It is frequently enquired about by correspondents, and some instances of the poisoning of poultry where it had been used, seemed to be justly attributable to their having eaten some of it. As a rule, there is little danger from this cause. The quantity used is so small that it is not noticed by poultry; and then, in gardens, poultry do so much harm to plants that they should never be admitted at the time of the year when cutworms occur injuriously, and only at special times of the year, when there are no crops to injure. If, however, there should be a bad infestation by cutworms, and there is no means of barring out or driving away the chickens, the owner of the crops must decide whether he will lose his crop or take special means of protecting his chickens. The experience of a great many people who have used this remedy, without taking and special precautions, is that injury to domestic animals is extremely rare; and, although I have been on the watch for any trouble of this sort for many years, I do not know of an instance when poultry have been poisoned, without doubt, by eating poisoned bran put out for cutworms. However, there will be many occasions when plants in gardens may be protected by putting out the poisoned bran in small heaps, and then covering them up with a piece of shingle or some other covering, so that the material cannot be got at by stray chickens and other poultry.

It has also been asked whether there is any danger of plants absorbing Paris green from this mixture when placed near their roots. In reply to this, it is only necessary to point out that Paris green is practically insoluble, and therefore cannot be absorbed by the plant.—[Dr. Jas. Fletcher, Dominion Entomologist and Botanist.]

We believe in total prohibition of weeds, they are such heavy drinkers, and, like their human prototypes, do a lot of damage to innocent parties.—Live-stock World.

Potato Planting.

In some parts of Ontario potato-planting is now deferred until considerably later than used to be the case, many good growers preferring the later part of May, or even the first of June. A favorite preparation is a spring-plowed clover sod, which has been winter-manured with from 10 to 15 loads of barnyard manure per acre. The application of fresh manure for potatoes is frequently advised against, on the ground that it tends to increase the amount of scab, if any scab fungus is in the ground or on the seed. Liming, also, is favorable to the development of this fungus by bringing about an alkaline condition of the soil. Plowing under a green crop tends to a rather acid condition, which is inimical to the scab fungus. Scabby seed may be made fit for planting by treating with formalin solution, as described previously in these columns, and it may be considered reasonably safe to use a moderate quantity of manure on sod planted to potatoes, although, if applying in spring, it is safer to use rotted than fresh manure. A method of planting which has given good results is to plow the sod four or five inches deep in furrows ten inches wide, dropping the sets twelve to fourteen inches apart in every third furrow, and taking pains to keep each set close against the last-turned furrow. Others, again, work up the land to a fine state of tilth, and plant after this manner at a second plowing. Still again, some open the furrows with a double mouldboard plow. Some open and close the furrows with an ordinary plow, and some still dig the holes with a hoe. In these days of scarce labor the latter should be considered an obsolete method. There are also potato-planting machines which will make the row, open the furrows, plant or drop the sets, cover them, and apply commercial fertilizers at the same time, if desired.

For planting, select medium-sized, smooth tubers, and cut into large pieces. The flesh of the potato nourishes the young plant, upon the start of which depends the crop, to a considerable extent. It is poor economy to apply a heavy coat of manure or fertilizer, and then defeat the object by cutting the potato sets so small that the young plants get an insufficient start-off. It pays to plant large sets. After cutting, plant and cover the sets—not too deeply—as soon as possible. If allowed to wither, the crop will be less. Experiments indicate that an increased yield will be obtained by coating the sets with land plaster, gypsum or lime, if the potatoes have to be cut a few days before planting.

After planting, and when the vines are coming up above ground, a thorough harrowing will destroy young weeds, admit air, and will produce a soil mulch to hold moisture. After this it is a matter of cultivating and spraying, not only with Paris green for bugs, but with Paris green and Bordeaux mixture for bugs and blight.

On the matter of varieties, opinions differ widely. The best rule is for each man to plant a variety that has been found adapted to his own locality, and suitable for his own table use, or the market to which he caters.

I am very fond of your valuable paper now that it is a weekly. Have taken it a long time, and find in it a great deal of valuable information.
Clarke, Ont.
CHAS. HANCOCK.

THE FARM BULLETIN.

An appreciative reader writes, calling attention to the practice of English agricultural societies giving prizes for best groomed and harnessed horses, best two and three acre patches of turnips, mangels, etc.

The Live-stock Division, Dominion Department of Agriculture, has issued an exhaustive bulletin on "The Production of Bacon for the British Market," with engravings of various types of hogs, scale of points, and other information.

The Minister of Agriculture for Saskatchewan has introduced a bill concerning the grants to be made to Saskatchewan agricultural societies. It is proposed to make a grant of \$1 for every paid-up member from fifty to one hundred and fifty where the objects of the society are being reasonably fulfilled. For each institute meeting up to two, a grant of \$10; each experiment, \$5; seed-grain field competitions, \$100; each day of live-stock judging competitions, \$16.

At a recent meeting of the Board of Trustees of the Iowa Agricultural College, Mr. H. G. Van Pelt, who graduated in 1903, was elected to the position of Assistant Professor of Animal Husbandry and Superintendent of the Dairy Farm. Upon graduation he entered the employ of Swift & Company, as salesman in their Animal Food Department. He had charge of the Jersey cows in the St. Louis dairy test. During the winter of 1904 and 1905 he was Instructor in Animal Husbandry at Purdue University, Lafayette, Indiana. He will now devote his sole time to instruction and investigation in connection with dairy cattle.

East Prince, P. E. I.

Spring is with us again, and all the birds of summer are come—even the swallow could be seen darting through the air the first days of May. We have had a great deal of rain lately, and at date of writing the ground, especially the low, flat land, is very wet. Seeding will be late in consequence, but the grass is growing nicely, as the weather, with the rain, has been nice and warm, and if we can just manage to keep our stock off the fields until June 1st, we would have good pasture all summer. The clover is coming out better than at first expected, and the prospects at present are fairly good for this season's hay cut.

Our cheese and butter factories are again getting into shape for a big season's work. The price of both cheese and butter is most encouraging. Farmers should have at least \$1.00 per hundred pounds for their milk, but the expenses of running and manufacturing are increasing each year, particularly the hauling of the milk; milk routes that cost 4c. or 5c. per hundred pounds some years ago now cost 9c., 10c. or 12c. for hauling. This makes the price per hundred very low and disappointing to the patrons.

This is an excellent time for sinking posts, and putting up both wire and pole fences. I wish to say a word about the farmers' road front. How nice it is to see, while going through the country, the farm-road front neat, snug and attractive. Do not crowd the fence into the road gutters. There are far too many roads that are now mere lanes, because of the greed of those owning land joining the public highway. Take a day or two in the early spring and put the road fence in good shape, and then gather up all rubbish and small bushes and cart them into your field and burn. Trim up all large trees that are a reasonable distance from the road, and if at any time you need some clay from the roadside, do not dig holes in it, but take it off the cradle hills and make the roadside level, so it can be travelled on in winter and spring when necessary. A few rock maples, birch or willows planted along the road fence will add dollars to the value of your property, and be a pleasure to the passerby.

With regard to the potato question, I am glad to see that Captain Read, one of the largest shippers of Island produce, advised the farmers, through the local press, not to do away with the old Blue or McIntyre potato just yet, but plant at least half of this season's crop with this old variety; and a few days later the same gentleman, advertising for a quantity of potatoes for shipment, asked for 500 bushels of Green Mountain and 10,000 bushels of McIntyres. This goes to prove that the McIntyre potato is still wanted and is likely to be wanted in the markets abroad. The price of potatoes so far this spring has been low; 20 cents per bushel has been the ruling price, but they dropped to 15c., and just now they are not wanted at all at our station on the line. Oats are coming up a little, 39c. is now being paid; some extra quality will bring 40c. per bushel. Wheat (seed), 90c. to \$1.00; flour, 2½c. per pound; hay is plentiful, at \$8 to \$9 per ton. Beef, large and fat, for June delivery, is sold for 5c. live weight. Milch cows are eagerly looked for, and satisfactory prices are being realized. Just ordinary grade cows sold at sales this spring for \$40.00. Eggs are worth about 14c. per dozen. The weather is getting too warm for handling pork, but the price is still high, 8½c. dressed.

The West Middlesex Situation.

Editor "The Farmer's Advocate":

Being a constant reader of your valuable paper, which I must say is improving all the time, I wouldn't like to have to farm without it. I give you a few notes on conditions in this locality—West Middlesex. We had a very mild winter, and spring opened late. Fall wheat and clover came through the winter all right, but on account of dry weather since have killed out on high land considerably. Spring grain generally is coming well, especially on fall plowing. There has been a great deal of barley and oats sown together, as there is not much grain sold now—a good plan, I think, and one which will do a great deal to add to the prosperity of farmers. Peas, which for a number of years were a failure, on account of the weevil, are being sown quite freely this spring. Live stock of all kinds is selling high. Horses, especially the heavy classes, are in big demand, selling at from \$175 to \$250. Cattle are a trifle easy; finished cattle bringing 5c., while good grass cattle bring from \$4.50 to \$4.90. Milch cows are in big demand, on account of a new creamery starting in Glencoe. It is being run on the cream-gathering plan; the proprietor makes the butter and pays all expenses, and charges the patrons 4c. per lb. and buttermilk. The only trouble is the average farmer is short-handed, and cows make a lot of work. Hogs have been a splendid price, 7c. to 7½c., and I think, taking cows and hogs together, the average farmer should make some money. The hired-help question is not quite so serious as last year. The farmers are finding it pays to give a good man good wages, and not to have a poor man at any price.
J. M. B.

The Old Flag.

E. T. Arnold Foster, West Peterboro, writes: "Re-ferring to the third editorial in your excellent paper of May 10th, the Canadian flag is mentioned as being the red, 'Red Ensign' bearing Canadian arms, as you have doubtless noticed since."

P. E. Island Notes.

By May 10th seeding had not been begun here. The season was late, owing to the great amount of rain we had last month. Clover in general has come through the winter well, but in some places where it was fed off in the fall it has been winter-killed. The grass fields are showing up quite green. A late season means a rush when we do get started to work the land, but nowadays nearly all of the plowing is done in the fall, and with modern implements the crop is soon got in. Oats are a fair price, about 38c., but potatoes are from 16 to 20 cents per bushel. The cellars are full of potatoes, not many being shipped last fall on account of the low price. Horses and fat cattle are in demand at good prices, and eggs, which are one of our biggest articles of export, and a fast-growing one, are worth 15c., about the highest price ever paid here at the time of the year. Our exhibition is likely to be a mammoth affair next fall. The Dominion grant of \$10,000 will go towards increasing the prize-list and assisting exhibitors in the matter of freight on live stock. It is intended that the Exhibition Association will pay all freight charges on live stock coming to the show from a distance of more than 15 miles—this arrangement to extend as far as Truro, N.S., and Moncton, N.B. This liberal arrangement will result in greatly-increased exhibits of live stock from Nova Scotia and New Brunswick, as well as from distant points on the Island. Our show will be late this year, from the 8th to the 12th of October, but as our season is opening late, perhaps it will suit all the better. Mr. F. W. Broderick, Maritime representative of the Seed Branch, Dept. Agriculture, Ottawa, has been on the Island looking after the stocks of seed offered to the farmers by the seed merchants. He reports the quality as pretty good. Our farmers are demanding a higher grade of seed than formerly, and most of them are willing to pay the advanced price to get the highest grade. Tuberculosis has developed to a large extent in the herd kept at our "Government Stock Farm." There are 18 of the herd that have reacted from the tuberculin test. As yet none of them have been slaughtered, but have been isolated. The Government are considering the matter of doing away with the whole herd, and replacing them with herds of superior animals of both the beef and dairy breeds. The cattle kept on the Government farm lately are inferior to those kept by some of our best breeders, and the farmers have been demanding for some time that the stock farm be done away with altogether or else stocked with up-to-date utility herds.

Our Secretary of Agriculture, Mr. J. C. Readey, has tendered his resignation. His work here is somewhat difficult, as it includes the oversight of the Farmers' Institutes, lecturing at the Prince of Wales College, and looking after the Government farm.
W. S.

Excursions to O. A. C., Guelph, June, 1906.

Saturday, June 9th—Lincoln.
Monday, June 11th—N. York; C. Wellington.
Tuesday, June 12th—E. Elgin; E. and W. Lambton.
Wednesday, June 13th—C. Simcoe; S. Simcoe; E. Simcoe.
Thursday, June 14th—E. and W. Peterboro.
Friday, June 15th—Haldimand; W. Huron; S. Huron.
Saturday, June 16th—W. Bruce; N. Bruce; N. Grey; Welland.
Monday, June 18th—Halton.
Tuesday, June 19th—Peel; W. York.
Wednesday, June 20th—N. and S. Oxford; N. Wentworth.
Thursday, June 21st—N. and S. Brant; E. and W. Hastings; N. and S. Norfolk.
Friday, June 22nd—S. Grey; E. Kent; W. Elgin; E. Parry Sound.
Saturday, June 23rd—C. Bruce; S. Bruce; E. Huron.
Monday, June 25th—N. and S. Waterloo.
Tuesday, June 26th—Dufferin; N. Middlesex; S. Wentworth.
Wednesday, June 27th—S. Ontario; W. Durham; E. and W. Northumberland; C. Grey.
Thursday, June 28th—N. and S. Perth.
Friday, June 29th—W. Simcoe.

Sale of Pioneer Farm.

The Pioneer farm of 320 acres, at Dryden, Ont., having done the work it was intended to do, namely, be a pioneer in the Wabigoon district, showing that that section could be successfully farmed, be a headquarters for enquiring settlers, and be an encouragement to others in pioneer work, it was decided to discontinue the farm as Government property. It was publicly advertised for sale by tender, and the tender of Mr. A. E. Annis, who has been manager from the beginning, was accepted at \$2,000. The Government, however, have reserved two plots, one for a public burial ground for the town, and the other for an agricultural society. The agricultural society has not yet been organized, but organization will probably take place next year, and this will be turned over to them for a fair ground. Through the establishment of the Pioneer farm a large area has been settled, perhaps six townships in all, and incidentally, some credit is due for mining investigations carried on. Some of the most promising gold mines west of Port Arthur are being developed in that district.

High Times on the Arctic.

The fitting up of the Steamer Arctic, under authority of the Dominion Government, in the spring of 1904, for the purpose of establishing permanent stations in the Hudson's Bay and other northern waters, will afford our readers an idea of how public funds are squandered. Among the items were the following:

- Cigars and tobacco, \$3,600. Lime juice, 1,200 gallons. Liquors, \$2,000. Playing cards, 17 dozen packs. Ten checkerboards, at \$5.90 apiece. Clothing, \$22,000.

Some items respecting the bill for dishes and cutlery for the ice-breakers of the St. Lawrence, including the Montreal:

- Two coffee pots, cost \$46. Two sugar bowls, cost \$54. Six fruit stands, \$148.50. Three fish plates, \$90. Two soup tureens, \$36.20. One afternoon tea set, \$22.50. Seventy-two champagne glasses, \$42.

The chief pusher of this expedition was one, Captain Bernier, as sailing master, a Major Moody being in command. Sir Wilfrid Laurier declared if such crimes had been committed, there must be discovery and punishment. A special committee will investigate.

Sowing Six Rows of Mangels Each Round.

Discussing the editorial "Grow More Corn," in our issue May 3rd, a subscriber recently remarked that he had discarded his old ten-hoe drill and bought an eleven-tube drill (tubes seven inches apart—we understand six inches is coming to be favored by some manufacturers). The eleven-hoe drill enables him to sow his corn 42 inches apart. He closes all tubes but the third one from each end, and drives with the inside wheel in its own track made the previous time across. There is no doubt 40 to 42 inches is preferable to 35 or 36, and if one has an eleven-hoe drill he does well to use it. Our reader also says he finds his eleven-hoe

drill handy in sowing mangels, using the second tube from each end and the center one, and driving the same as he does for corn. This brings the mangel rows 28 inches apart, and sows three rows at a time.

Dairy Notes from the Ontario Department of Agriculture.

The indications for a healthy season's business in the cheese industry of the Province were never more favorable. The reports received by the Department thus far, indicate an unprecedented desire on the part of the proprietors and managers of factories to put their premises and equipment in the very best condition to insure a high-class product. Never before in the history of Ontario dairying was so much money spent in replacing old wooden floors with cement, repairing and painting woodwork, whitewashing old walls and ceilings, clearing and perfecting drains, repairing and renewing whey tanks, making provision for an adequate supply of pure water, and many other improvements, the result of which will be seen in the more uniform quality of our 1906 products. The creameries appear to fully appreciate the ground gained in the English market, and are evidently determined that their place among the producers of good butter will be made even more secure during the coming season. Improvements in methods and equipment are evident on all hands.

The producers, the men who own the cows and supply the milk and cream to the factories and creameries, are coming to realize the very important part which they play in the production of a high-class article. They appreciate as never before the necessity for cleanliness and care on the part of those who have to do with the raw material before it reaches the hands of the manufacturer of the finished product. This is shown by the improvements in facilities for cooling and caring for the milk, and the demand made by many of them, that the maker in the factory to which they send their milk must have the services of one of the instructors sent out by the Department of Agriculture. The beneficial results following the instruction of the past few years is, no doubt, responsible in a great degree for all this

activity, and the recent action of the Department in making provision for sanitary inspectors is already having a healthful influence. The owners of factories and creameries realize that sooner or later their premises must be thoroughly sanitary, a fit place in which to manufacture food products made from milk and cream. With the high prices for the beginning of the season, the limited quantity of cheese and butter in sight, and the unprecedentedly high and uniform quality of the product up to date, especially of the cheese, the indications are for a most satisfactory season's business. The total make of cheese for the month of May will be from ten to fifteen per cent. less than last year, due largely to the somewhat backward season, the large number of farrow cows, and the later than usual freshening period of some.

Summing up all conditions and facts, the conclusion is forced upon us that the total output for cheese for the season will certainly not exceed that of last year, and will probably fall somewhat short, but the quality promises to be uniformly good.

Fair Dates for 1906.

- Winnipeg Horse Show.....May 23-25 Brantford Horse Show.....May 24-26 Galt, Ontario, Horse Show.....May 31-June 1 Toronto Open-air Horse Show.....July 2 Inter-Western Exhibition, Calgary.....July 10-12 Winnipeg Industrial Exhibition.....July 23-28 Brandon Exhibition.....July 31-Aug 8 Cobourg Horse Show.....Aug. 14-16 Canadian National, Toronto.....Aug. 27-Sept. 6 St. John, N. B.....Sept. 1-7 Canada Central, Ottawa.....Sept. 7-15 Western Fair, London.....Sept. 7-15 Sussex, N. B.....Sept. 10-14 New York State, Syracuse.....Sept. 10-15 Michigan West, Grand Rapids.....Sept. 10-14 Chatham, N. B.....Sept. 14-21 Dominion Exhibition, Halifax, N.S.....Sept. 20-Oct. 5 Prince Edward Island Agr. and Industrial Exhibition.....October 8-12 Ontario Winter Fair, Guelph.....Dec. 10-15

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MARKETS.

Toronto.

LIVE STOCK.

Cattle—The total receipts of live stock at the City and Junction last week were 4,370 cattle, 2,911 hogs, and 759 sheep, an increase of 176 cattle, but a decrease of 2,902 hogs and 282 sheep for the corresponding week last year. The large receipts of cattle caused prices to be easier.

Exporters—Out of about 50 carloads of shipping cattle sold at the Junction and City markets, not more than six loads sold over \$5 per cwt. Prices ranged from \$4.75 to \$5.15 per cwt., the bulk going at \$4.75 to \$4.90; export bulls, \$3.60 to \$4.

Butchers—The best class of butchers, \$4.60 to \$4.85; loads of fair to medium, \$1.35 to \$4.50; cows, \$3.65 to \$4.25, and bulls, \$3.25 to \$3.50.

Feeders and Stockers—Best loads of short keep feeders, 1,100 to 1,200 lbs., sold at \$4.50 to \$4.75; feeders, 900 to 1,000 lbs. each, \$4.20 to \$4.40; feeders, 800 to 900 lbs., \$4 to \$4.25; stockers, 500 to 700 lbs., \$3 to \$3.70 per cwt.

Milk Cows—Not many of prime quality offering, the bulk being of medium quality. Prices range from \$30 to \$60 each. On one market day last week there were only 3 cows on the market that brought \$60.

Veal Calves—Receipts have been large,

and prices easy, at \$3 to \$6.50 per cwt. Sheep and Lambs—Only a limited number has been offered, not enough to supply the demand. Prices firm. Export ewes, \$5 to \$5.50; bucks, \$4 to \$4.50 per cwt.; yearling lambs, \$6.50 to \$7.50 per cwt. Spring lambs sold at \$3 to \$7 each. The quality of spring lambs generally is poor.

Hogs—The packers are quoting lower prices; \$7 per cwt. for selects, and \$6.75 for lights and fats, but the run has been light, farmers seemingly holding back.

Horses—There is still an active trade in horses, especially for workers and delivery. At the Repository, a week ago Tuesday, Burns & Sheppard disposed of about 150 horses. The sale was brisk, the best bringing good prices. Three loads were bought for the Northwest. At the Canadian Horse Exchange, business is reported brisk by Mr. Carroll, who has orders from several American cities for a large number of high-class carriage horses.

Burns & Sheppard report the following as being the prevailing prices: Single roadsters, 15 to 16 hands, \$125 to \$140; single cobs and carriage horses, 15 to 16.1 hands, \$125 to \$170; matched pairs and carriage horses, 15 to 16.1 hands, \$390 to \$550; delivery horses, 1,100 to 1,200 lbs., \$140 to \$175; general-purpose and express horses, 1,200 to 1,350 lbs., \$150 to \$200; draft horses, 1,350 to 1,700 lbs., \$160 to \$210; serviceable second-hand workers, \$60 to \$90; serviceable second-hand drivers, \$60 to \$80.

COUNTRY PRODUCE.

Butter—Prices steady, with a fair demand. Creamery prints, 23c. to 24c.; creamery boxes, 21c. to 22c.; large rolls, 16c. to 17c.; dairy pound rolls, 19c. to 20c.; bakers', 15c. to 16c.

Eggs—Prices steady at 16c. to 17c. per doz.

Cheese—New, 11c. to 12c.; old, 14c. to 14 1/2c.

Poultry—Choice dry-plucked chickens, 16c. to 17c. per lb.; fat hens, 11c. to 12c. per lb.; turkeys, 15c. to 18c. per lb.; spring chickens, 30c. to 35c. per lb., or 90c. to \$1.25 per pair.

Potatoes—Prices firm. Eastern car lots, on track at Toronto, are quoted at 92c. to 95c. per bag; Ontario, 80c. to 85c.

Hay—Baled hay is none too plentiful at \$9.50 to \$10 per ton for No. 1 timothy for car lot, on track at Toronto; No. 2, \$7.50 per ton.

Straw—Baled straw sells at \$5.50 to \$6 per ton, car lots, on track at Toronto.

Beans—Prices unchanged, hand-picked,

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\$1.80 to \$1.85, and prime, \$1.70 to \$1.75.

Honey—Market steady. Strained, 8 1/2c. to 9c. per lb.; combs, \$1.75 to \$2 per dozen.

Seeds—There is little doing in seeds, and prices are nominal: Alsike, No. 1, \$7 to \$9 per bushel; alsike, No. 2, \$5.50 to \$6.50 per bushel; red clover, choice, No. 1, \$7.50 to \$9.30 per bushel; timothy seed, flail-threshed, \$2 to \$2.40 per bushel.

BREADSTUFFS.

Grain—Ontario—Wheat strong; No. 2 white, 82c. bid; No. 2 mixed, 81c. bid at outside points, and none offering. Manitoba No. 1 northern, 85c., at Point Edward; No. 2 northern, 82c. at Point Edward.

Barley—Prices unchanged; No. 2, bid, 51c., east, and 50c., west.

Oats—No. 2 white, 36 1/2c., bid, outside, and offered at 38c., outside.

Peas—82c., bid, offered at 83c., outside.

Buckwheat—Sellers at 52c., outside.

Rye—Sellers at 70c., outside.

Corn—No. 2 yellow, 57 1/2c., bid, at Toronto.

Bran—\$18.50, bid, on track at Toronto, in bulk.

Shorts—Scarce at \$21, at Toronto.

Flour—Ontario steady; 90 per cent. patents sell at \$3.15; Manitoba first patents, \$4.50; Manitoba second patents, \$4.

HIDES AND TALLOW.

E. T. Carter & Co., wholesale dealers

in wool, etc., have been paying: Inspected hides, No. 1 steers, 11c.; inspected hides, No. 2 steers, 10c.; inspected hides, No. 1 cows, 10 1/2c.; inspected hides, No. 2 cows, 9 1/2c.; country hides, flat, 9c. to 10 1/2c.; calf skins, No. 1, selected, 14c.; sheep skins, \$1.60 to \$1.85; horse hides, \$3.25 to \$3.60; tallow, rendered, 4 1/2c. to 5c.; wool, unwashed, fleece, 16c. to 18c.; wool, washed, 25c.

Montreal.

Live Stock—In spite of rather depressed British markets, exporters show interest in the freight situation. Little change has occurred in the local market. Receipts fair, though quality of offerings is not extra. The choicest sold at 5 1/2c.; fine being 5c. to 5 1/2c.; good, 4 1/2c. to 5c.; medium, 3 1/2c. to 4 1/2c., and common, 2 1/2c. to 3 1/2c. Calves offering in fairly large numbers at \$2 to \$4 for common, each, and \$5 to \$10 for good to fine. Sheep and lambs scarce. Sheep quoted about 4 1/2c. to 5c. per lb., and lambs at \$3 to \$5 each, some very good being a fraction more. A considerable number of live hogs were received, but, as usual, a large proportion of them were on contract. However, the supply was ample for the demand, and prices remained about the same as previously, at 7 1/2c. for selects, weighed off cars. Milch cows sold at \$25 to \$50 each, according to quality.

Horses—A dealer who went out into the country recently, found them very scarce,

but succeeded in getting four teams. They averaged about 1,650 lbs. each. The average cost was somewhere around \$260. He was offered \$150 on his bargain the day he got them into the city. On the whole, the market is firm and steady, at around the following quotations: Heavy-draft horses, weighing 1,500 to 1,700 lbs. each, \$250 to \$300; light-draft or coal-carts, 1,400 to 1,500 lbs., \$175 to \$225; express horses, weighing 1,100 to 1,300 lbs., \$150 to \$200; choice saddle or driving horses, \$350 to \$500 each, and common stock, \$75 to \$125 each.

Provisions and Dressed Hogs—Dressed hogs holding steady at 10c. to 10½c., according to quality. Barrel pork advanced 50c., to \$21 to \$24 per bbl.; hams steady at 13½c. to 14c. for large; 14½c. for medium, and 15c. to 16c. for small; bacon also higher. Lard, 8c. to 12c., according to quality.

Hides—Market shows considerable strength, beef hides advancing ¼c. per lb., and calf skins, 1c. per lb. Supply fairly large, but demand has brushed up considerably. Beef hides quoted at 10c., 11c. and 12c. per lb., respectively, for Nos. 3, 2 and 1, tanners paying ¼c. over these buyers' prices. Calf skins are also in active demand, and dealers have advanced their buying prices to 15c. per lb. for No. 1, and 13c. for No. 2. Sheep skins are \$1.15 to \$1.20 each, and clips and lamb skins, 10c. to 15c. each. Horse hides, as usual, are in poor demand, but prices are steady, at \$2 each for No. 1, and \$1.50 for No. 2. There is a fair trade passing in tallow, and prices are unchanged, at 4½c. per lb. for rendered, and 1½c. to 2½c. for rough.

Butter—Another jump of a cent in prices took place since our last report. As high as 21½c. has been paid in the country. Prices said to be quite above export basis. Dealers here quote market for finest at 20c. to a fraction higher. It is suggested that the cause of the high prices in the country is competition among merchants. The output of many factories is contracted for by local merchants, the price to be regulated from week to week by that ruling on the nearest board. Merchants who have not secured the output of these creameries are trying to break up the system by bidding up prices on the country boards.

Cheese—Local merchants have been quoting 11c. to 11½c., though 11½c. has been paid in the country. It is held here that the market has been bulled, and is liable to drop a few notches at any time. However, it is hard to say.

Eggs—Prices very firm. Pickling operations will soon be completed, but at present there are none too many to supply the demand. Straight-gathered, wholesale, 16½c.

Potatoes—Merchants quote 65c. to 68c. per 90 lbs. for carloads, on track.

Grain—Oats have firmed up, notwithstanding a slight increase in stocks in store. Prices are: 40c. store, for No. 4; 41c. for No. 3, and 42c. for No. 2. Wheat is practically unchanged. Demand is very dull for local account, hardly anything being required. No. 1 northern, Manitoba, store, is 88c., and No. 2 white winter, Ontario, about 86c.

Seeds—Demand for seed has been unusually good for the season of the year. Prices are about the same as last quotations, at \$14 to \$16.50 for alsike; \$14.50 to \$17 for red clover, and \$4 to \$6 for timothy per 100 lbs., f. o. b., Montreal.

Chicago.

Cattle—Common to prime steers, \$4 to \$6.30; cows, \$3.25 to \$5; heifers, \$2.75 to \$5.35; bulls, \$3 to \$4.25; calves, \$2.75 to \$6.40; stockers and feeders, \$2.75 to \$5.10.

Hogs—Choice to prime heavy, \$6.50 to \$6.55; medium to good heavy, \$6.45 to \$6.55; butchers' weights, \$6.50 to \$6.55; good to choice heavy mixed, \$6.45 to \$6.50; packing, \$6 to \$6.47½. Sheep and Lambs—Steady at \$5 to \$5.35; yearlings, \$6 to \$6.35; lambs, \$5.75 to \$7.75.

Live Cattle in England.

London.—The first consignment of Canadian cattle direct to Avonmouth arrived yesterday. Prices at the sale averaged £19 to £20 per head.

Buffalo.

Veals—\$4.50 to \$6.75.
Hogs—Heavy, mixed and Yorkers, \$6.75 to \$6.90; pigs, \$6.70 to \$6.80; roughs, \$6 to \$6.20; stags, \$4.25 to \$4.75; dairies, \$6.60 to \$6.70.
Sheep and Lambs—Lambs, \$5.50 to \$7; yearlings, \$6 to \$6.50; wethers, \$6 to \$6.25; ewes, \$5.25 to \$5.50; sheep, mixed, \$8 to \$5.75.

Cheese Markets.

Madoc, 11 1-10c.
Stirling, 11½c.
Tweed, highest bid, 10½c.
Kingston, colored, 11c.; white, 11c.

GOSSIP.

The auction sale of Shorthorns from the Anoka herd of F. W. Harding, Waukesha, Wisconsin, on May 9th, was the most successful sale of the breed in America this year so far, the 39 head sold making an average price of \$372.80. The highest price for a bull, and the highest price of the sale, was \$825 for the roan, Village Sultan, calved April, 1905, sired by Imp. White Sultan, and purchased by Mr. A. Chrystal, Marshall, Mich. Sidelight, a roan yearling bull, by Royal Wonder, sold for \$625 to A. C. Hindekoper, Meadville, Pa., and Sight-seer, a white two-year-old, by Royal Wonder, for \$550 to W. A. Earles, of Wisconsin. The highest price for a female was \$775 for the red four-year-old Canadian-bred cow, Carrie Nation, purchased from Mr. P. White, Pembroke, Ont., and sired by Imp. Merryman. The second highest price for a female, \$750, was realized for the Canadian-bred Nelly Buckingham, a roan four-year-old, bred by H. Smith, Exeter, and sired by Imp. Knuckle Duster. Fifteen other females sold for prices ranging from \$400 to \$605, including the red yearling heifer, Victoria of Anoka, which fell to Messrs. Cargill & Son, of Cargill, Ont., at \$500.

The auction sale, on May 16th, of the herd of Shorthorns belonging to Mr. Guy Bell, Brampton, Ont., was very largely attended, and was ably conducted by Mr. John Smith, M. P. P., who officiated as auctioneer. The cattle were in excellent condition. Bidders were present from many Ontario counties, and the prices realized were, on the whole, satisfactory. The imported three-year-old bull, Cronje 2nd, sold for \$465 to T. A. McClure, Meadowdale. Imp. Prince Cruickshank, seven years old, went to Geo. Robinson, Castlemore, at \$140. The younger bulls sold at \$60 to \$145, the latter price for Royal Prince, bought by S. Barber, Rosemont. The highest-priced female was Imp. Celia, purchased by D. Currie, Black's Corners, at \$335. Fairy Girl went to R. Noble, Norval, at \$140; Rose Saxon to D. McMillan, Hillsburg, at \$165, and Zee and calf to E. S. Ostrander, Shelburne, at \$195.

QUESTIONS AND ANSWERS. Veterinary.

MISCELLANEOUS.

1. Young mare has a soft lump about half the size of a hen's egg split lengthwise, about nine inches in front of stifle. Would it be unsafe to breed her?
 2. What is the difference between the mustang, the broncho and the cayuse?
 3. Is there any possibility of one horse contracting heaves from another?
 4. How can a person be sure that a horse has good stamina without testing him at work?
- Ans.—1. This is a small rupture. It will be comparatively safe to breed her. A man always assumes some risks when he breeds a mare. In case of difficult parturition, your mare might increase the rupture, but, with this exception, she would breed as safely as another mare.
2. A mustang is a wild horse of the prairie. The terms broncho and cayuse are not well defined. Broncho is often used to express a cross between a mustang and an improved stallion, and cayuse a cross between a mustang and an Indian pony.
3. None whatever.
4. There is no way of testing a man who has studied the scientific information of horses and their management.

indicate good constitution, good digestion and respiratory powers, good bone and feet and good courage—should be able to judge with reasonable certainty, but the most expert may be deceived. No person can learn these things from books, charts, etc. He must have actual experience, and make comparisons between living animals.

CONGENITAL BLINDNESS.

Pony mare foaled in April, and foal was blind in both eyes. The eyes appear to be inverted, so that the eyeball is turned inwards. At first the eyes were reddish, but now are quite dark. Can they be successfully treated without the services of a veterinarian?

J. A. S.

Ans.—The condition is congenital, and it is very doubtful if it can be successfully treated, even by a veterinarian; certainly not by a non-professional man. If the eyes were normal, except for the inversion inwards, an operation which consists in severing the muscles that turn the eye inwards might correct the fault; but from the symptoms given, I am of the opinion that the whole organ is abnormal, and that there is no sight. Applications will do no good. I would advise you to call your veterinarian in, and if, after an examination, he decides that treatment will not succeed, I think it would be a Christian act to destroy the foal, as a blind foal has no value, and certainly cannot have an enjoyable existence.

V.

Miscellaneous.

COTTONSEED MEAL.

Where and at what price per hundred pounds can I obtain cotton-seed meal for feeding purposes? A SUBSCRIBER.

Ans.—Inquire of any wholesale feed store. In London, Ont., they are quoting it at about \$32 per ton, and \$1.70 to \$1.75 per cwt.

BASEMENT HORSE STABLE.

My horse stables are built in a section of barn adjoining the hay mow. The barn is 20 feet by 30 feet. The barn stands at this, the south end, about three feet from the ground. The bottom is quite dry; in fact, mostly gravel. Further, I want more mow room. I can have three or four good rooms, well lit stalls underneath. Will it be healthy for horses? D. R. C.

Ans.—Yes, provided there is sufficient fall of the ground outside for good drainage, after excavating, and provision is made for plenty of light and ventilation.

MANURE SPREADER—HICCOCK SWEET CORN.

1. Do you know of any make of manure spreader that is tight, so that it will hold liquid?
2. Would you advise raising the Hickox sweet corn for ensilage?

T. W. A.

Ans.—1. No. The only way liquid can be handled in a manure spreader is by soaking it up with absorbents.

2. Hickox Sugar and Hickox Improved corn are respectively recommended by two leading firms of seedsmen as productive varieties for canning purposes, but none of the sweet corns are heavy enough yielders to be profitable for ensilage. We have never grown the Hickox or Hickox variety.

WHERE THE LARD CAME FROM.

When B. L. Winchell, the president of the Rock Island Railroad, was a little fellow, about ten years of age, he was sent into the country to visit his grandfather.

The old gentleman had a large farm, and Ben was much impressed and delighted with country sights, which he saw for the first time. At the end of a week he wrote his mother:

Dear Mamma,—
I wish you were here. I am having a fine time. Yesterday, Grandpa killed two hogs, and took forty pounds of lard from them. Your loving
BEN.

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Life, Literature and Education.

The Story of the Old Flag.

To-day, the 21th of May, flags are fluttering everywhere; yet ask the first one hundred people you meet to explain why our flag is as it is, and the chances are that ninety-nine cannot tell you. Ask the next one hundred to sketch out one, or describe one without looking at it, and prepare to be surprised if a single one out of the hundred can do it correctly.

Now, let us examine our Union Jack. If you have one at hand—either by itself or in the corner of an ensign—to which you can refer, all the better. You find it apparently composed of a blue ground, the chief central part occupied by a prominent red cross; beneath that, diagonally, two other crosses, "saltires," the under one of white, the other laid upon it of red. Moreover, you will find that this smaller red cross does not traverse the flag regularly throughout its length. In the first and third sections it occupies the lower part of the white cross, in the second and fourth the upper. Last of all, you will notice a border of white all about the colored portions.

Now, there must be some reason for all these seeming vagaries. What is it? Again, why is the flag called the "Union Jack"?

The last question we shall answer first, but to do so we must go very far back in the history of our island mother. In the dim long ago, in the age of chivalry and romance, as will be remembered, it was the custom of the soldiery, both knights and foot, to wear over their coats of mail a surcoat, emblazoned with the distinctive insignia of the overlord, nationality, etc. The Crusaders, for instance, wore a white-cross emblem thus, and, at a later date, the soldiery of England substituted for it the red cross of St. George. These surcoats were commonly known as Jacques, or Jacs.

When British seamen began to figure more largely upon the chessboard of Europe, the sailors of the Cinque Ports fell into the habit of raising one of these Jacs or "Jacks," on a lance, to show the nationality of those on board when troops were being conveyed by water; and it was from this custom that the single flag, bearing on it only the cross of St. George, or St. Andrew in Scotland, came to be known as a "Jack."

The English Jack, then, which was fixed on by Richard I., (or, as some claim, by Edward I.), was at first a simple white flag, bearing upon it the red cross of St. George. The Jack floated by the Scots, on the other hand, was a blue one, emblazoned with the saltire of St. Andrew. When James VI. of Scot-

land came to the throne as James I. of England, a "Union Flagge," bearing the united crosses of St. George and St. Andrew, was devised, to be used as an "additional flagge," along with the more distinctive banners. In this flag, or Jack of James, the blue ground of the Scotch Jack was retained, the white ground of the English ensign being evidenced only by a very narrow white line about the red St. George cross. In fact, as Cumberland says, "The union of the flags resulted in the Scotchman getting, as he usually does, a smart share of all that was going."

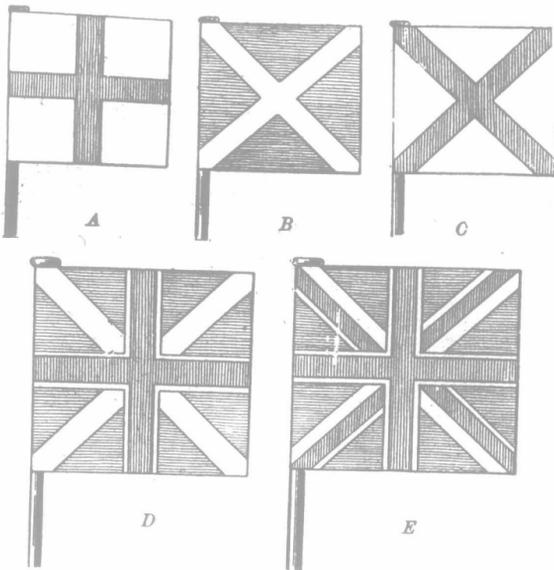
During the Commonwealth this "Union Jack" disappeared, and a new flag, designed with the crosses

White border to St. Patrick, one-sixth of red of St. George.

Broad white of St. Andrew, one-half of red of St. George.

In the heraldic interpretation of colors, it may be interesting to note, red signifies courage; white, purity; and blue, truth. The white border referred to is due to a rule in heraldry that color must not touch color, while the added breadth of the white border to the St. George Cross was given to permit of a larger proportion of the original white ground.

To touch upon all the ensigns (in each of which the Union Jack figures), would require a treatise. We have confined ourselves wholly to the Union Jack, wherever it floats the emblem of the British Constitution.



(A) Jack of England; (B) Jack of Scotland; (C) Cross of St. Patrick; (D) Jack of James; (E) Union Jack as at present.

of St. George and St. Andrew, and a harp to represent Ireland, was introduced; but on the Restoration, the Jack of James came once more into evidence, and was floated along with the English Jack, or the Scotch Jack, as the case might be, until the reign of Anne, when, by a royal proclamation issued in 1707, "Our Jack" was declared the sole ensign.

In 1801, in the reign of Geo. III., when the Irish Parliament was united with the Union Parliament of England and Scotland, the red cross of St. Patrick was added, and the Union Jack became what it is to-day, the larger portion of the white cross of St. Andrew being left in the first and third sections, in acknowledgment of the fact that Scotland first entered the Union. In the instructions given for the manufacture of the flag, the measurements were designated with great care:

Red Cross of St. George, one-fifth of width of flag.

White border to St. George, one-third of red of St. George.

Red Cross of St. Patrick, one-third of red of St. George.

The Cricket.

Little inmate, full of mirth,
Chirping on my kitchen hearth,
Wheresoe'er be thine abode,
Always harbinger of good,
Pay me for thy warm retreat,
With a song more soft and sweet;
In return thou shalt receive
Such a strain as I can give.

Though in voice and shape they be
Formed as if akin to thee,
Thou surpassest, happier far,
Happiest grasshoppers that are;
Theirs is but a summer song,
Thine endures the winter long,
Unimpaired, and shrill, and clear,
Melody throughout the year.

Neither night nor dawn of day
Puts a period to thy play:
Sing, then—and extend the span
Far beyond the date of man;
Wretched man whose years are spent
In repining discontent,
Lives not, aged though he be,
Half a span, compared with thee.

—Cowper.

Fix Your Eye on Hudson's Bay

Mr. Aubrey Fullerton's timely contribution in this issue, we hope, will re-awaken interest in the vast inland sea discovered so long ago by the British navigator, Henry Hudson. To Canadians, who ought to be more interested therein than any other people, it is but little more than a big spot on the map, and the mighty land surrounding the bay is yet an unknown quantity. But the page in our geographies will soon loom larger than it does to-day, and demand a more accurate study. Especially should the schools of Ontario and Quebec be taking it up. The boundaries of both these Provinces skirt James' Bay, the great southern arm of Hudson's Bay. A line running about midway between Mattawa and Moose rivers forms the frontier between the two Provinces, and the East Main River, away north, is the boundary between Quebec and Ungara. The Ontario coastline runs upward on the west side of James' Bay to the mouth of the Albany River, north of which again lies the great Keewatin territory. No one knows the potentialities in fisheries of the Bay itself, nor of the land southward in timber, minerals and agricultural soil. With railway communications rapidly being completed from the Provincial capital, via far-famed Temiskaming, Ontario people should be profoundly interested in this great inland sea and the territory athwart which will also, ere long, be running transcontinental trains on the eastern section of the Grand Trunk Pacific, quickening into activity the resources of this New North.

Unloved Children.

Absence of love in the home can never be atoned for with wealth or culture. The parents who simply supply their children with every luxury and give them a modern education, meantime withholding from them the best affection of the heart, and failing to teach by example kindness and consideration, are sowing a harvest that may be reaped in tears and bitterness. Better be the children of humble people where love and honesty and industry are taught by constant example, than the inheritors of wealth and affluence, which are linked with cold-heartedness and discord.—[Toronto News.

The Great Lone Sea of the North.

By Aubrey Fullerton.

A blank space on the map, in the very heart of Canada, is all that Hudson's Bay has signified hitherto—a great, empty waste of northern sea, 1,000 miles from south to north, and 600 miles at its widest. For two centuries the traders and whalers have been lords of that immense inland water, and the country surrounding it has not been so much as seen by any others, except by an occasional explorer, or a few ambitious sportsmen. Nobly shaped, and apparently well placed, its size and position seem to have served no useful purpose, for though large, it is isolated, and though there might be resources of both sea and land, they have not been accessible. And so it has been left to the fur-traders and the whale-hunters.

However unimportant the northern sea may have been to the rest of the world, it has been a nursery of fortunes to these few adventurers. That ancient and honorable concern, the Hudson's Bay Company, has traded into its regions since 1670, and is still in business to-day, the greatest trading corporation in the world. The whalers came much later, having made regular voyages thither during only the past sixty years. Their fisheries, however, are very profitable, a consignment of Hudson's Bay whalebone having sold last year in Scotland for \$12,000 a ton. The great lone sea of the north has given up its treasures to these and to none others, for there were none others.

But now Hudson's Bay has a new importance. Its place on the map is being studied, and plans are laying that will, if carried out, fill the great white blank with marks of enterprise. A proof of this is the fact that within the past two years there has been considerable discussion as to the rearrangement of Provincial boundaries, so that Manitoba, like the two older Provinces east, should have a frontage on Hudson's Bay. This goes to show that access to the great lone sea, so long ignored, is now in demand.

What makes it so is the fact that it is thought to very closely concern the question of transportation—the moving of Canada's great wheat crops in the near future. Some day there will almost certainly be lines of railway from the heart of the Canadian West to the Hudson's Bay coast. One company has already announced its definite purpose to extend its lines in that direction, and other similar projects are afoot. I can see Churchill, half way up the coast, will, probably, be the first terminus. These railways will build to Hudson's Bay for a very evident and very businesslike reason, namely, that from its magnificent harbors there will be a new and shorter route to Europe, by which the West will be placed in quicker connection with the world's wheat markets.

From Winnipeg to Liverpool, via Montreal, is 4,228 miles; via Hudson's Bay, 3,626 miles; and Duluth, the great American lake port, to Liverpool, via New York, 4,249 miles; via Hudson's Bay, 3,728 miles. It is pointed out, too, that the saving of distance to be covered by rail, before the seaboard is reached, would be of even more importance than the net gain in distance on the entire route. A half-cent a ton per mile would, it is claimed, be saved in this way, and it is of interest to figure this up and see what it amounts to. On the whole trip it would mean a saving of fifteen cents on each bushel; and when we shall have 60,000,000 bushels to export, as we shall have very soon, this will make a total saving of \$9,000,000. It is, therefore, very evident that a Hudson's Bay route, if actually opened up, would be a factor in national economy, both of money and time.

All this, however, depends upon whether or not Hudson's Bay can be successfully navigated. However well-situated it may be, the fact re-

mains that it is a northern sea, and for a large part of the year is ice-bound. For the past three years the Government has been sending expeditions to ascertain, among other things, for how many months navigation is feasible. The steamer "Neptune," a converted whaling ship, was the first of these parties, in 1903, and was relieved the next year by the "Arctic." Thus far the investigations have shown that Hudson's Bay can be safely navigated for

mo natives. The Canadian Government will now see that justice to all is carried out.

To take care of this great lone country in the interests of Canada, the Mounted Police were called upon. A detachment of these soldier-police, who have done so much to preserve law and order in the Northwest, went with the expedition of 1903, and established a police post, whose commanding officer has since been named governor of Hudson's Bay. The



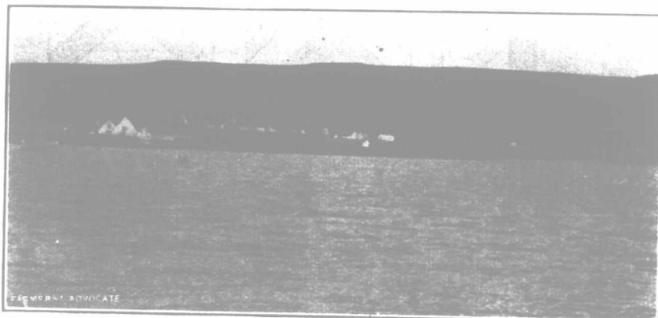
A Party of Hudson's Bay Eskimos.

at least a third of the year, from the first of July till late in October. The Bay itself is always open, and, while the harbors are frozen over from November to June, the danger in the Bay is due rather to drifting ice, large icebergs being frequently met. Storms and fogs are infrequent.

The expeditions to Hudson's Bay have had a threefold purpose. To investigate the conditions of navigation was one; another was to gather scientific information, at sea and ashore; and the third was to

police are now located at several important points, and are holding the Hudson's Bay country in readiness for the first advance of industry and civilization.

Not only as a short-cut to Europe, however, is Hudson's Bay of value. Its waters are the home, not only of the bow-head whale, worth \$10,000 each, but of the seal, and, including the Straits, of some thirty varieties of edible fish. These minor fisheries have never been exploited, but they can readily be turned to account

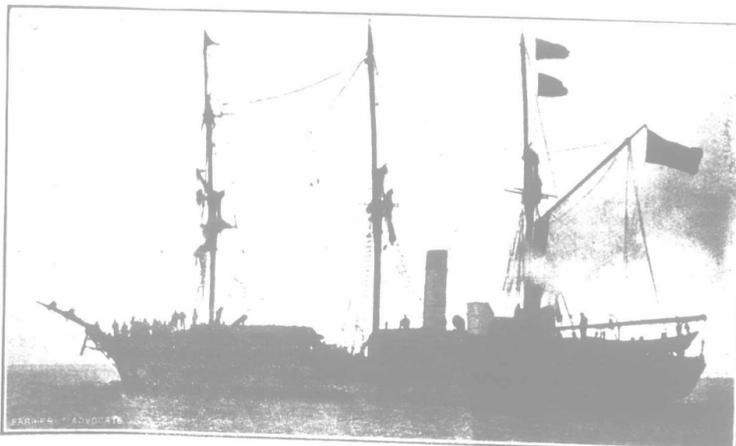


A Hudson's Bay Port.

take definite occupation of the region by establishing police posts along the coast. This means that Canada is, after many years of indifference, asserting her authority over the great inland seas of the north and its vicinity. The region has been looked on as a no-man's land, and the foreign whalers, who have been carrying on a most profitable business, without asking leave, and without paying license or duties, have also dealt as they pleased with the Eskimo

whenever the facilities are provided. The coast country, also, has undeveloped resources. Deposits of iron and gold are known to exist in the Keewatin territory on the west, and on the east vast forests extend away into the interior.

It is a strange and lonely country, and small wonder if we have thought but little of it. But this northern region, peopled only by a few Eskimo tribes, and still a wilderness, will some day be an important part of



A Whaling Ship in Hudson's Bay.

Canada, and the great sea that runs into it will, in all likelihood, become one of the chief of Canadian waters. There are few better illustrations of what the future possibly has in store for this Canada of ours.

Souls are Built as Temples are.

Souls are built as temples are—
Sunken deep, unseen, unknown,
Lies the sure foundation stone.
Then the courses framed to bear,
Lift the cloisters pillared fair,
Last of all the airy spire,
Soaring heavenward, higher and higher,
Nearest sun and nearest star.
Souls are built as temples are—
Inch by inch in gradual rise
Mount the layered masonries.
Warring questions have their day,
Kings arise and pass away,
Laborers vanish one by one,
Still the temple is not done,
Still completion seems afar.
Souls are built as temples are—
Here a carving rich and quaint,
There the image of a saint;
Here a deep-hued pane to tell
Sacred truth or miracle;
Every little helps the much,
Every careful, careful touch
Adds a charm or leaves a scar.
Souls are built as temples are—
Based on truth's eternal law,
Sure and steadfast, without flaw,
Through the sunshine, through the snows,
Up and on the building goes;
Every fair thing finds its place,
Every hard thing lends a grace,
Every hand may make or mar.
—Susan Coolidge.

Permanent Residents.

Questions are often dangerous weapons. The difficulty in which some visitors to a jail were placed by their injudicious curiosity is thus described by Tit-bits.

The party was escorted by the chief warden. They came, in time, to a room where three women were sewing.

"Dear me," one of the visitors whispered, "what vicious-looking creatures! Pray, what are they here for?"

"Because they have no other home. This is our sitting-room, and these are my wife and two daughters," blandly responded the chief warden.

Our Society Pin.

Received the Society pin some time ago, and am pleased with it. The design is both dainty and pretty.

AGNES HUNT,

Nipissing, Ont.

Accept my thanks for beautiful Literary Society pin. Will try to get more subscribers later.

ELIAS PANNABECKER,

Waterloo Co., Ont.

News of the Day.

British and Foreign

Turkey has withdrawn her troops from Tabah.

The main crater of Mt. Vesuvius has been added to its accomplishments by shooting up large quantities of sand.

Morengo, the leader of the long rebellion in German Southwest Africa, was captured in British territory on May 16. Up to March of this year he had cost the German Government \$150,000,000.

Canadian

Over 24,000 new settlers for Canada have arrived at Quebec this season.

Mr. Chester A. Martin, Rhodes Scholar, from St. John, N. B., has won the Gladstone Memorial prize at Balliol College, Oxford.

The Provincial Government of Ontario, it is said, is taking steps towards securing a part of the old military training grounds at Niagara, with the view of using them as a public park.

The Marathon Race.

The Government will award a minimum grant of \$500 to Mr. William Sherring, the Hamilton, Ont., brakeman who won the Marathon race at Athens. The fact that Mr. Sherring was his own trainer, and went to Greece on his own initiative, paying all his expenses himself, gives evidence of a persistence and determination that will probably be of more account to Mr. Sherring through life than his mere ability to win such a race. There are higher forms of achievement than the athletic; nevertheless, such feats as the winning of the Marathon race by Mr. Sherring, of the Diamond Sculls by Lou Scholes, and of the King's prize at Bisley by Private Perry, are a striking tribute to the hardiness and pluck of the young Canadian, and an undoubted advertisement to the Dominion herself. As Earl Grey remarked at the opening of the Royal Canadian Art Exhibition, last week: "No dogma is so universally believed as that the Twentieth Century belongs to Canada," and every achievement counts.

Regarding Mr. Sherring's victory, the following, clipped from the Brooklyn Eagle, will be read with much interest by Young Canadians, especially at the present time, when all Canada is in a furor of welcome to the young athlete, on the occasion of his return from the land of the Spartans:

"America easily captured the Olympic championship with a total of 75½ points. England, counting Ireland, Scotland, Australia and Canada, is second, with 36. Sweden made 26 points; Greece 27½; Hungary 13; Austria 12; Germany 7 2-3; Finland 6; France 5 1-3; Italy 3, and Belgium 1. Eleven first prizes go to the credit of Americans, four to Great Britain, three to Greece, and two to Sweden. "The Americans were greatly disappointed that their entrants failed to carry off the Marathon race. William Sherring, of Hamilton, Canada, came

in first. The distance is approximately 26 miles. Sherring's time was 2 hours 51 minutes and 23 3-5 seconds. Svamberg, of Sweden, was second, seven minutes behind the winner, and William G. Frank, the American, was third, with the time of 3 hours 46 1-5 seconds. "There were eighty-three athletes to start from Marathon, at 3 o'clock

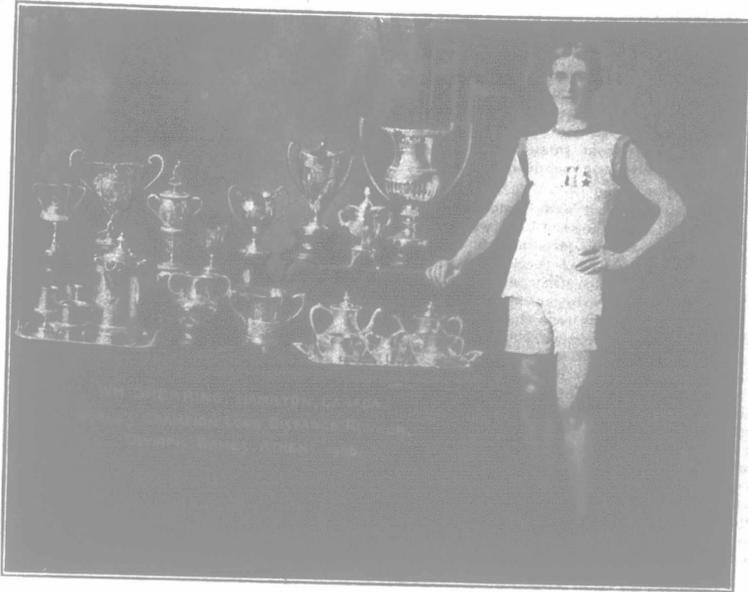
came over the brow of the hill that overlooks the stadium, and he was not a Greek. The roar of disappointment was tremendous as the maple leaf of Canada was discernible as the victor came nearer. Down the hill came Sherring at a good gait, finishing in good condition, despite the fact that for the last few miles he had been almost unconscious

who always were a good distance behind him. Sherring joked and laughed with his Greek attendant, and returned the salutes of the cheering crowds.

"A cannon shot announced the arrival of the first runner within four kilometres of the stadium, and the interest now was intense. The scene from an eminence overlooking Athens was wonderful. The Marathon road, winding like a white ribbon for fifteen miles, until it was lost around the foot of Mount Pentelicus, was fringed with troops and crowds of sight-seers, the Acropolis shining in the sun, and the sea glistening in the background, forming a glorious spectacle. The crescendo of cheers along the road grew into roars as, at 5.50 p. m., a cavalry officer, followed by a single runner, was seen approaching.

"At the gates of the stadium, Sherring, smiling, and looking fresh, and not at all distressed, was joined by Crown Prince Constantine, who ran alongside until he ended his long journey in front of King George and Queen Olga. The king handed Sherring a bouquet, while ladies showered flowers and gifts upon him. There was great cheering and enthusiasm, although the Greeks evidently were disappointed.

"William Sherring was born in Hamilton, Ontario, on September 19, 1878, and he has always made that town his home. He is 5 feet 7 in. tall, and is rather slim of build, and in running condition weighs about 120 pounds. His debut was made at Bartonville in the fall of 1897, when he finished fourth in a five-mile race. In the six-mile across-country run, at Buffalo, N. Y., in November, he finished first, with thirty-five starters. He next won the Hamilton 'Herald' road race, in 1899, in 1 hour 53½ minutes, establishing a new record for the distance—19½ miles. In the following year he ran second in the Marathon race at Boston, his time being 2 hours 41 minutes 31 seconds. In the same year, at Milton, he established a new Canadian record for 10 miles, his time being 56 minutes 20 seconds. He has won numerous local races."



William Sherring, of Hamilton, Ont., winner of the Marathon race, Athens, Greece. The Marathon was run in imitation of the fight of the man who brought to Athens the news of the victory of Miltiades over the Persians at Marathon. This first runner dropped dead when he had delivered his message.

in the afternoon. All along the road between Marathon and the stadium there were masses of spectators, who shouted encouraging words to the Greek competitors. Along the roadway there were about 150,000 persons, while the stadium contained about 70,000. It was a remarkable scene that took place when the leader

from fatigue. He braced up again as he neared the finish.

"When he found himself well ahead, Sherring dropped into a walk, giving himself great reserve for the final spurt. Whenever he saw his opponents approaching he resumed running, and in this manner tired them all out except Svamberg and Frank,

Children's Corner.

The Young Pioneers.

The accompanying picture says more than any words can tell of the happy days on the farm. Oh, the joy that these three boys are taking out of their primitive ox team, and not only these three boys, but several other boys in the same neighborhood. I wish I had a snapshot of the same outfit with a rack on their small wagon, helping to draw in a field of oats, the excitement of the little men, the shouting and the hot faces, and when the barn was reached with their load, the pushing behind, and the skillful management of the ox team, to get safely into the barn without an upset, and the triumph when their work was accomplished. Who could say the farm is a dull place for the boys when they have once witnessed such a scene? Many a Saturday have I seen the oddest cavalcade coming up the avenue; sometimes five or six boys riding on calback instead of horseback. These were the days when they were too young to be trusted with colts. The same boys, three or four years later, are equally happy breaking in colts, a part of the farm work that is all important, and most trying to the head of the farm, when he gets beyond sixty. Now, from the knowledge gained in their boyish frolics, they are quite competent to take this important part.

My mind carries me back a few more years, when the eldest hope of the

family was a boy, and only had his sister, two years younger, for a playmate. At six years of age, he began to harness the dear old driver, and drive an aged washerwoman home on Monday evenings. From that time, his mind was busy contriving something to hitch a horse to. His favorite vehicle was a large wood-box on a handsleigh, to which he would hitch a balky old mare that had seen a quarter of a century, and with his little roly-poly sister—what a happy pair—sitting in bias corners of the wood-box to make room for their legs, and their heads just above the edge of the box! Was there ever greater joy than this? The old mare never balked with the children; in fact, seemed to enjoy the drives. WRINKLES, York Co., Ont.

An advertisement: "Bulldog for sale; will eat anything; very fond of children."



The Young Pioneers.

Margie's Charm.

By Caroline Mosher.

"What is it that makes everybody love Margie Fitch so?" said Jennie Howard, half petulantly, as she turned away from the window after having seen the elegant Mrs. Dayton, with her little daughter by her side, gracefully rein in her horse, take Margie in her handsome carriage, and dash off again down street. "She isn't pretty, nor stylish. Now, what is it, do you suppose?"

"I think I know the charm. Perhaps you would better set yourself the task this week to discover it," answered her mother, busily putting the sitting-room to rights.

The next day at school Jennie followed her like a detective. The first thing she noticed was Margie's kindness to Alice Ross, a shy, new scholar, who stood quite alone, looking wistfully at the

others at their gay sports. Margie went over and made her acquaintance, and, after a little urging, the girl joined the merry group, and was soon running like a deer and laughing with the rest.

When school was called, Margie laid a rose on the teacher's desk as she passed, and smiled a cheery "Good-morning," and received an appreciative smile in return.

About an hour later, while busily studying, a smothered sob caught her ear. Looking about, she saw the new scholar sitting with head bent forward regarding her slate with a hopeless expression. Up went Margie's hand for permission to leave her seat, which was granted, as were all like requests, for they were rare, and the teacher knew they were never of a trifling nature.

"What is the matter, Alice?" asked Margie, sitting down beside her.

"I can't do one of these examples," she replied, dashing away a tear.

Margie took the slate, read over an example, and soon had it down correctly. With a little help at the right place, the others were conquered, and the girl lifted a grateful face to hers as she thanked her.

On their way home, a troop of girls were working off their animal spirits in a wild game of tag. Margie, in whirling, suddenly came in collision with a gentleman, knocking his cane from his hand.

"Oh, I beg your pardon, sir," said Margie, covered with confusion, as she returned the cane to him. "I'm afraid I have hurt you, sir," and she looked up with frank solicitude in her eyes.

"Not at all, my dear," he responded, heartily, pleased at her courteous manner. "Go on with your play, and be happy. I am proud to doff my hat to so polite a young lady," which he did with a stately bow, and passed on.

"How did you dare? I should have been too much frightened to have said a thing," exclaimed one of the girls.

"So should I," chorused the others. There was a social in the church parlors that week. Jennie still hovered near Margie, learning a sweet lesson every day from her. As they sat turning the leaves of a hymn book, finding their favorite songs, a lady paused to speak to them. Margie instantly arose and proffered her chair, which was accepted with a pleased grace, after Margie had insisted upon it.

The two girls started for the other room, where the young people were preparing for games. Just then Margie espied a solitary figure sitting in a corner. This was the deacon's wife, who was somewhat deaf. After a handshake and a sentence through the ear-trumpet people usually left her to herself, as the majority of people mumble or speak too rapidly to be readily understood through the trumpet.

Margie crossed the room to her and taking the trumpet in her hand, being careful to articulate so as not to make her affliction more conspicuous, she sat and chatted half an hour away, amusing the dear old lady by repeating the pleasantries and jokes that were flying from lip to lip of those around them.

"You have been a great comfort to me, my bonnie lass," said the old lady, patting the hand that held the trumpet. "Now, go and play with the rest. I thank you, my dear, for your thoughtfulness to an old woman like me." And Margie went away quite happy. As soon as she appeared several voices exclaimed: "Oh, here comes Margie Fitch! Let her be Rachel. Come Margie and be blindfolded."

Margie laughingly submitted, and a moment later was giving "Jacob" a lively chase around the ring. She always put her whole heart into everything she did.

"I think I have found out Margie's charm," said Jennie to her mother the next morning. "It is because she is so good to everybody."

"Yes, that is it," answered her mother.

"She is thoughtful, kind, polite, and obliging. I think she must carry the Golden Rule very near to her heart."

The Tempest.

We were crowded in the cabin,
Not a soul would dare to sleep,—
It was midnight on the waters
And a storm was on the deep.

'Tis a fearful thing in winter
To be shattered by the blast,
And to hear the rattling trumpet
Thunder, "Cut away the mast!"

So we shuddered there in silence,—
For the stoutest held his breath,
While the hungry sea was roaring,
And the breakers talked with Death.

As thus we sat in darkness,
Each one busy with his prayers,
"We are lost!" the captain shouted
As he staggered down the stairs.

But his little daughter whispered,
As she took his icy hand,
"Isn't GOD upon the ocean
Just the same as on the land?"

Then we kissed the little maiden,
And we spoke in better cheer,
And we anchored safe in harbor
When the sun was shining clear.

—J. T. Fields.

A Quebec Cousin.

I have been reading "The Farmer's Advocate," and have always looked forward to it. I go to school every day, but now we are having our Easter holidays. We have one week. I live on a farm not far from the town of Coaticook. Our town is very pretty in summer. I hope this letter will escape the waste-basket. I am in the Fourth Reader at school, and find our lessons very hard.

HILDA BALDWIN (age 12).
Coaticook, Que.

The Magic Letter.

There was a little maiden once,
In fairy days gone by,
Whose every thought and every word
Always began with "I."
"I think," "I know," "I wish," "I say,"
"I like," "I want," "I will;"
From morn to night, from day to day,
"I" was her burden still.

Her schoolmates would not play with her,
Her parents tried in vain
To teach her better, and one day
Poor "I" cried out in pain,
"Help me, O fairies!" he besought,
"I'm worn to just a thread;
Do save me from this dreadful child.
Or I shall soon be dead!"

The fairies heard and heeded, too,
They caught poor "I" away
And nursed him into health again
Through many an anxious day;
And in his place they deftly slipped
A broader, stronger letter.
"The more she uses that," they said
With roguish smiles, "The better!"

The little maiden wept and sulked
At first, and would not speak,
But she grew tired of being dumb;
And so, within a week,
She used the substitute; and lo!
Her playmates crowded round,
Her parents smiled, and all were pleased
To hear this novel sound.

She grew to use it steadily
And liked it more and more,
It came to fill a larger place
Than "I" had done before;
And each year found the little maid
More kind and sweet and true.
What was the magic letter's name?
Why, can't you guess. 'Twas "U!"

There was a man who had a clock, his
name was Matthew Mears;
He wound it regularly every night, for
nearly forty years.

At last this precious timepiece proved
an eight-day clock to be,
And a madder man than Mr. Mears you
wouldn't wish to see.



"The Queen in Danger."

Good for Evil.

A young Frenchman, named Pierre, had a dog of which he was not very fond. One day he said to himself, "I am tired of having this old dog always following me about. As he won't leave me, I must put an end to him." So he went down to the river, and got into his boat, and the poor old dog went with him. When they were in the middle of the river he started to tie a stone round the dog's neck. The dog knew something was wrong, and he tried to get away. In his struggles, being a big fellow, he upset the boat. Pierre could not swim, and at once the current began to carry him away. But the poor old dog immediately caught his coat between his teeth, and with great trouble brought his unkind master safe to land. I don't think Pierre ever tried to get rid of his dog again.

A Nova Scotian Cousin.

I intended to write to you before, but I did not know the address until I found "The Farmer's Advocate" which had the prize essays. I like the essays very much, but I wouldn't like to try one myself, because I am not very good in that line. I enjoy the "Children's Corner" very much, and am always glad when it is time for a new number to come in, so I can read it. I am very fond of reading, and we take a good many magazines and papers. I have a lot of books myself, but have read them all. We have a very nice "school library," and get books every fortnight. I am in the Seventh Book at school, and go regularly. I was thirteen years old the thirty-first of March.

VIOLET F. REID.

Windsor, N. S.

Esther Ried.

This young lady was oftentimes discouraged, as she was sometimes overtaxed with work, but after becoming a close companion of her pious and honorable cousin, she became changed, and instead of being unkind and not sympathetic, she became very self-denying for others' sake, and was greatly liked by all who knew her. I like this story because it shows what influence people's characters have upon others, and so should remind us to be more careful of our character on others' account.

IDA WHITLANE (age 13).
Lockton, Ont.

"The Queen in Danger."

If the ivory queen is in danger, what of the lovely maiden-queen, whose dainty white fingers are seeking for her a way to escape? Is she not herself a willing captive already, and if so, can one describe her position as one of danger? Nay, is she not, rather, just waiting to capitulate, eager "to be taken."

H. A. B.

Under the old rule of the birch, the boy was excusable who called his poem on the departed teacher, "The Loss of a Whaler."

The Quiet Hour.

The Power of Christian Fellowship.

I thank my God upon all my remembrance of you, always in every supplication of mine on behalf of you all, making my supplication with joy, for your fellowship in furtherance of the gospel from the first day until now; being confident of this very thing, that He which began a good work in you will perfect it until the day of Jesus Christ: even as it is right for me to be thus minded on behalf of you all, because I have you in my heart.—Phil. i. 3, 7 (R. V.).

In the margin, a different rendering is given for the last clause, viz., "ye have me in your heart," which completes the circle of Christian fellowship. Who can measure its power in the making of character? Fellowship, in its highest form—which surely is Christian fellowship—is a never-failing spring of joy and thankfulness. From it we draw inspiration, courage and strength for the battle of life. Without friends, on whom the heart leans in happy confidence, life would be sad, and dreary, beyond all question. Our souls are continually reaching out to the souls of others and drawing from them the strength which can never be found in our own personality. Union is strength: band men together and they will be far stronger than the same number of men working singly. In spiritual things, the more a man gives away the more he has, so the people who give freely to others of their store of spiritual strength find themselves growing richer and stronger in the act.

Let us examine this wonderful talisman of "fellowship" which can transfigure and glorify existence, which can make the heart sing for joy in the midst of sordid surroundings, and without which no one can be really happy though he be clothed with purple and fine linen and fare sumptuously every day. Most people would be delighted to learn an easy and sure way of becoming rich, though—in theory—they are quite ready to own that happiness cannot be bought with money. The desire for happiness is an instinct planted by God Himself in every human heart, and He has not given the instinct without opening the way of satisfaction to it. Think back over your life, and see if the brightest, sweetest hours in it were not the times of high and holy fellowship with other spirits akin to yours, or with Him who is nearest of kin to each human soul, the only Friend who perfectly understands the thoughts which cannot be translated into words.

"The human heart asks love, but now I know
That my heart hath from Thee
All real, and full, and marvellous affection,
So near, so human; yet divine perfection
Thrills gloriously the mighty glow!"

I don't understand how anyone who believes in heaven at all can put the often-repeated question, "Shall we know each other there?" Why, any of us would rather stay here if entrance into that new life meant separation from our friends. Heartsick and lonely we should turn away indifferently from gates of pearl and golden streets, and care less than nothing for "mansions," if they were not to be "homes"—and home is where love is and nowhere else in earth or heaven. The higher we climb in reaching after God, the more sure we are that love, which is the heart and soul of fellowship, is the only thing which can make life worth living. As for "knowing each other," we can only really know those whose spirits are akin to ours—and how mysteriously do we recognize a kindred spirit. This recognition of our spirit-friends is spiritual even here. In one sense of the word, we may say that we never see anyone. We can see the "body," but the "person" is hidden beneath the veil of the flesh. But, in another sense, we can see the invisible person, can feel the texture of his spirit with our spiritual senses, and are instinctively attracted or repelled by his personality at the first meeting. But the friendships which glorify life, and inspire us with

joy and strength and courage, are usually the old, tried friendships which have slowly but surely woven themselves into our very being. Such fellowship is restful and satisfying. It may not show itself in many words—there is little need of speech when we are perfectly sure of our friends' loyalty, and when "as in water face answereth to face, so the heart of man to man." It is, indeed, a joy to those who fear the LORD to speak often one to another; but speech is only outward after all, while fellowship is inward and mysteriously unexplainable. The friend who knows our thoughts before they are spoken is always easy to converse with or to be silent with. Such a friend not only brings out the best that is in us, but also brings out an "ideal, possible best" which is not yet ours. Love is not blind, but rather has eyes so keen and far-sighted that they can see the oak in the acorn, the butterfly in the crawling worm. It is very discouraging to have "friends"—so-called—who are continually finding fault, on the principle that it is wholesome to be told of faults so that they may be corrected. On the other hand, it is grandly inspiring to have friends who see in you a beauty of holiness which is not yet yours. Rather than disappoint their trust, you will reach after that potential beauty until it becomes your rich possession.

Of course I am talking of real friends, with whom real spiritual fellowship is alone possible. A friendship of convenience—a sort of partnership for business purposes—is like a marriage of convenience, there is nothing sacramental or immortal about it. Such "friends" can be cultivated or dropped without much trouble or inconvenience; but true friends are not won so easily, and a real parting with a real friend involves terrible pain. By a "real parting," I don't mean a physical parting, for friends who can be divided by distance or death are certainly not real friends. As Hugh Black says:

"The highest love is not starved by the absence of its object; it rather becomes more tender and spiritual, with more of the ideal in it. Ordinary affection, on a lower plane, dependent on physical attraction, or on the earthly side of life, naturally crumbles to dust when its foundation is removed. But love is independent of time or space, and as a matter of fact is purified and intensified by absence. Separation of friends is not a physical thing. Lives can be sundered as if divided by infinite

distance, even although materially they are near each other. This tragedy is often enough enacted in our midst. We can often be more really "in touch" with people when they are not near enough in body to irritate us with little-mannerisms and uncongential habits. Those who are living in the midst of friends are often more to be pitied than those who appear to be in far more lonely circumstances. It is never wise to judge by outward appearance, for Browning is not the only person who has discovered that—

"If I think but deep enough,
You are wont to answer, prompt as rhyme;
And you, too, find without a rebuff
The response your soul seeks many a time
Piercing its fine flesh-stuff."

But let us remember the warning Tennyson gives in "Geraint and Enid," and never let the power of fellowship do harm to ourselves or others. If happiness—even the purest earthly happiness—be our aim and object in life, then the heart will be a clog and weight to the spirit, and human fellowship will be a power to drag down instead of wings to uplift the soul. To hold back—or to try to hold back—another from the path of duty because it involves pain, is to degrade the glorious God-given power of fellowship, and it can only result as Eve's misuse of her strong influence over Adam resulted, in failure and misery. The mother who encouraged her seven sons to be faithful to their conscience and their God, though she was sending them to torture and death, was not unfeeling. Her strong, clear-sighted love saw that the kingly "spirit" must never be sacrificed to save its servant, the "body." She knew it was far better to part for a time from those she loved rather than, by word or thought, attempt to hold them back when God called them to go forward.

The power of Christian fellowship flows—as all power does—from God. To say, with S. Paul, "I have you in my heart," is to say also with him, "This we also pray for, even your perfecting." When a heart is uplifted to God, the friends whose hearts are knit with it must be uplifted too. How often conscientious people actually try to cut out of their prayers the dear ones who are linked more closely to them by the mysterious bond of death. How the angels must wonder at such a hopeless

attempt to go directly against our highest, holiest instinct. To deliberately cut the name of a departed friend out of one's daily prayers is not to cease to pray for him. God reads our unuttered desires, He does not need words. A prayer that is made of words alone, without the desire of the heart, may be meaningless to Him, but the unspoken love of a faithful, loyal heart for those who, though out of sight, are certainly not out of mind, is real prayer, and cannot fail to help in the perfecting of those who are still very members with us in the mystical body of Christ. Death was never intended to be a barrier between souls. They are not dead but living, and while our hearts are linked indissolubly with theirs, every prayer which a loving child of God breathes into His ear cannot fail to be a prayer to "our" Father for "our" daily bread—whether any names are mentioned or not. Though we may deceive ourselves, we can never deceive God into thinking that words without love are real prayer, neither can He fail to recognize real prayer if love without words be held up longingly to Him. The hearts of men on both sides of the veil are bound with the living, throbbing cord of love to the Heart of God, and love—being of the very essence of God—is living fellowship and communion with Him, and, therefore, the only true and real prayer. For prayer is by no means necessarily asking for something.

Lastly, let us not make the mistake of under-estimating the cost of Christian fellowship. The King and Lord of Love could not be joined in closest fellowship with us without deliberately choosing the Cross, and if we link ourselves in close fellowship with others, we, too, must be prepared to pay the price of love. To some extent we must, like our Master, make our brother's burden of sin and suffering our own, and how can we tell where the path of love may lead? If fellowship is sure to bring Joy, it can hardly fail also to bring Pain, not merely an easy, sentimental emotion, but a stern, cold reality, which is not pleasant at all. There cannot be a real sharing in the joy of Christ's other members without a real sharing also in their suffering. How can we look down unconcernedly on scornfully on a sinner if we are "one with him," and his sin is, in a very real sense, our sin too? The battle against sin is forced upon us by the misery it brings; for the sin of each member of the Body is a matter of vital concern to the

whole Body as well as to Christ, its Head.

If we do not fail our brethren, then there is little fear that they will fail us. We shall be the greatest losers if we neglect to use for God's glory the wonderful power of fellowship. Life is a mirror, in prayer as in everything else, and what we give in good measure will be rendered back richly and generously. Pray for your friends, and trust your friends to pray for you. Can you render to them grander service than that? If so, what is it?

"One friend in that path shall be
To secure my steps from wrong;
One to count night day for me,
Patient through the watches long,
Serving most with none to see."

HOPE.

Too Late.

What silences we keep year after year
With those who are most near to us and dear;
We live beside each other day by day,
And speak of myriad things, but seldom say
The full, sweet word that lies just in our reach,
Beneath the commonplace of common speech.
Then out of sight and out of reach they go—
These close, familiar friends who loved us so!
And sitting in the shadow they have left
Alone with loneliness and sore bereft.
We think with vain regret of some fond word
That once we might have said, and they have heard.
For weak and poor the love that we expressed
Now seems beside the vast sweet unconfessed,
And slight the deeds we did to those undone,
And small the service spent to treasure won,
And undeserved the praise for word and deed,
That could have overflowed the simple need.
This is the cruel cross of life, to be
Full visioned only when the ministry
Of some dear presence is but empty space,
What recollected service can give then
Sweet consolation for the "might have been."

About the House.

Hot Weather Diet.

The hot, midsummer days are looming up in the near future, and already people are saying: "I don't like meat in summer. If I only knew what to eat that would be just as good!"

As we have said before, meat is valuable on account of its wealth in proteid (flesh-forming) and mineral substances, and on this account some "authorities" hold that it should not be given up, even in hot weather. One writer even goes so far as to state as a general rule that "Ordinary diet should contain one part raw animal food to three parts uncooked vegetable material." However, since it is a well-known fact that people who live in hot climates naturally eat very little meat, while inhabitants of the polar regions revel in it, it would seem only reasonable to suppose that meat rations may very well be cut down, to some extent, at least, in hot weather, and increased again as the colder days of fall come on. As a rule, one may trust one's likes and dislikes, and if one almost revolts at the very thought of meat in dog-day weather, one may very safely take it as a sign that then a meat diet is not advisable.

It is at all times necessary, however, that an adequate supply of proteid be kept up; and it is certainly a consolation to know that all the starchy foods, e. g., wheat, oats, corn, peas, beans, nuts, rice, barley, lentils, etc., contain, beside carbohydrates, also proteid and fat. If to these are added eggs, milk, fish, cheese, bananas, raisins and figs, all excellent "meat" foods, it will be seen that even though meat be to a great extent eliminated, a very good choice of proteid-carrying food will still

be left. Two eggs, it may be mentioned in passing, are about equal to the amount of beefsteak usually served to one person. Oats are the most nutritious of all the cereals, being exceedingly rich in nitrogenous matter. To many people, however, oatmeal in any form is very heating. Indian meal is also very nutritious, containing more fat than any cereal, except oats; so now when you eat corn-meal gems with butter and syrup for breakfast, you may know that you are laying up a good source of energy for your morning's work.

COOKING STARCHY VEGETABLES.

If you pour cold water on starch, you will notice that it merely becomes wet—does not dissolve. Pour boiling water on it, however, and you at once perceive a remarkable change. Now, the reason of this is that each starch grain, so small that it is invisible to the eye, is enclosed by a small, hard case, formed, chiefly, of a substance called cellulose. This wall is absolutely proof against cold water, but if the water be hot enough, it bursts open, and its contents, which are soluble, escape, to be acted upon and changed into the gelatinous mass which we all know.

Now, this process is the very one which takes place in the cooking of all the starchy foods, whether by boiling, or by dry heat, which, it may be necessary to notice, induces a change which also renders the starch soluble in water. Hence, since uncooked starch is just as insoluble in the stomach as out of it, it must be seen that very thorough cooking is necessary for all starchy foods. A half-cooked, "soggy" loaf of bread, potatoes with a "core" in them, insufficiently-boiled rice, tapioca, porridge, etc., are all extremely indigestible, and extremely wasteful of food materials. Porridge, in fact, especially when made

of wheat meal or oatmeal, should be boiled several hours. In order to accomplish this, many cooks now boil it in a double boiler on the "day before," and simply reheat in the morning.

GREEN VEGETABLES.

Green vegetables are chiefly valuable on account of the various salts they contain—as medicines rather than as sources of nutriment. Their low nutritive value is due to the large proportion of water which they contain, their apparent solidity being due to the little army of cell-walls which give them form and "body." It is a rather peculiar fact that cabbage and turnips are actually more watery foods than milk, containing about 90 per cent. of water, while milk contains only 87 per cent. Cooking in water, as a rule, renders vegetables even less nutritive, as part of the nitrogenous and mineral substances are drained off, hence, when possible, steaming is preferable to boiling. For this reason also, as will be judged, "raw" salads, especially when prepared with a rich cream or olive-oil dressing, are likely to be more nutritive than a cooked dish made with the same vegetables. However, boiled onions, carrots, etc., may be made nutritious by the addition of butter, or a cream or milk sauce.

Nuts, which are a very, very valuable food, are more digestible when cooked and seasoned with salt. When uncooked, they should be very thoroughly chewed. They should never be covered with butter and heated in the oven. Raisins, asparagus, spinach, carrots and lentils contain iron, and are useful for anemic people. Onions, celery, lettuce and carrots are nervines. Dandelions in very early spring, tomatoes and spinach (called in France the "broom of the stomach") also contain valuable medicinal properties.

In cooking vegetables, it should be re-

membered that all green varieties should be put on in boiling salted water and boiled gently, in uncovered vessels. Underground vegetables should also be boiled gently, but the salt should not be added until done, else the fibre of the vegetable may be hardened.

HOT-WEATHER RECIPES.

Sandwiches made with chopped nuts mixed with dressing, also cheese sandwiches, are very nutritious and wholesome, as are also vegetable soups made with milk, and all desserts served with sugar and plenty of whipped cream.

Cream of Potato Soup.—Mash some boiled potatoes. Boil 1 pint water and 1 quart milk together. Add small half cup butter, salt and pepper, and two large spoonfuls of the potato. Beat the yolks of 2 eggs light; add to them 1 tablespoon flour mixed smooth in a half-cup of water, and stir into boiling soup. Just before serving, add a cup of whipped cream.

Chestnut Soup.—Boil 1 quart chestnuts until soft. Peel, drain and mash. Rub through a sieve. Blend 1 tablespoon butter and 2 of flour. Place over fire, and add 1 quart rich milk, gradually. When scalding hot, add cayenne, salt and nutmeg. Put in the chestnuts; bring to a boil, and serve with a tablespoon whipped cream on each plate.

Fruit Soup.—One quart strained fruit juice, any kind. Put on in a double boiler. Add ½ cup sugar. Moisten 2 tablespoons arrowroot with water, and add to hot juice, stirring till smooth. Cool, flavor, and serve in cups with a bit of ice in each.

Blanc Mange.—To 1 quart milk, add a little grated lemon rind, cinnamon and sugar. Bring to boiling point. Add 4 tablespoons cornstarch blended in milk. Stir till thick. Put in mould, and serve with a jelly and cream.

Cocoanut.—Put in a double boiler 1

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quart milk. Moisten 4 tablespoons cornstarch in a little cold milk. Add to hot milk and cook. Add 1 cup grated cocoanut, and $\frac{1}{2}$ cup sugar. Let boil up; take off fire, and add beaten whites of 2 or 3 eggs. Serve cold with a custard made with the yolks of the eggs, milk, a little cornstarch and flavoring.

Lemon Cornstarch.—Boil 3 cups water with $\frac{1}{2}$ cups sugar and juice of 2 lemons, also a little grated rind, if liked. When boiling, add 3 tablespoons cornstarch moistened in water, and boil till clear. Just before taking off the fire beat in stiffly-beaten whites of 2 or

3 eggs. Beat 5 minutes and serve cold with custard sauce. A very nice pudding may be made in the same way by using milk instead of water and omitting the lemon. Flavor with vanilla.

Fruit Salad.—Peel and slice $\frac{1}{2}$ doz. bananas. Put in a dish with alternate layers of shredded pineapple. Mix juice of 3 oranges and 2 lemons. Sweeten, and pour over.

Chicken Salad.—Chop finely some cold chicken, a bit of onion, some celery when in season, and some walnuts, if you have them. Mix with dressing, and serve on lettuce.



May I offer an apology to the readers of the Ingle Nook? I had really forgotten how many of the farmers do not get their Advocates for the simple reason that they cannot go to the post office every day—until, perhaps, almost a week has passed. So I didn't give half time enough to get our reunion letters in. However, there is no great harm done. Any letters from our "pioneers" that come in within the next three or four weeks will be published in order of their coming. That will leave plenty of time, and we hope to hear from all of our old friends.

DAME DURDEN,
 "The Farmer's Advocate" office, London, Ont.

Empire Day Contributions.

I find we have only room for a few pioneers before the press closes, but these are very welcome. Next!

Dear Dame Durden,—How good of you to ask to hear from me again, and I never wrote to thank you for telling me how to iron those shirts. I found your directions a great help, and in a short time I could launder Tom's shirt so well that he said I must have been taking lessons.

Of course, I am housecleaning, and so am glad that only a short letter is wanted. So often I felt like writing to the Ingle Nook, but have let something else occupy the time.

I hope some of the Chatterers will tell us something about canning fruit in the jars before the fruit season is here. Well, then, I must leave the rest for another time, as this will be more than was asked for.

LYNDA D.

Dear Dame Durden,—Thank you so much for carrying out my suggestion, you always help and encourage all our smallest wishes.

Will we not have fun reading all the letters from our friends on Empire Day? I hope everyone will join in, and we will hear from ocean to ocean.

We must all form a large, large circle and give three cheers for Dame Durden! With best wishes for our Nook.

A NEW BRENSWICK GIRL.

From M H R. O.

Dear Dame Durden, It seemed so strange to me to be called one of the old-timers, but it really is a long time since I had written to the Ingle Nook. I hadn't intended it to be the last time, and really here this won't be the last, either, for it doesn't seem fair to take all the good things from the Nook and not get anything. So many things have happened since last time of writing, it really makes one feel old, and you know that is a dreadful feeling for a girl to have, isn't it? I hope you will let me come again, will you? Once M. H. R. O. Now.

JANIE CANLICK,
 Waterloo, Ont.

A Budget of Questions.

Dear Dame Durden, I am another raw corner seeking information. I am not sure whether all my questions will be in the line of the Ingle Nook, but could

someone give me a recipe for Welsh rarebit and cheese sandwich, and other ways of using hard cheese? also can you paint hardwood floors, and have it a success? What will take sooty streaks off a wall? What will take fly specks off good furniture? We have only taken "The Farmer's Advocate" since January, but I have learned to prize it more than any other magazine. Wishing "The Farmer's Advocate" and the Ingle Nook every success, I'll say good-night.

A FARMER'S WIFE.
 Peel Co., Ont.

Welsh Rarebit.—Take $\frac{1}{2}$ lb. rich cheese, and cut into very thin slices. Spread the slices with mustard, and lay in a dish. Then add enough ale to cover the cheese. Simmer gently until the cheese melts, then season with salt. Pour over toast, and serve at once. Cream may be used instead of ale, if preferred.

Cheese Sandwich.—Rub the yolk of 1 hard-boiled egg smooth. Add 1 tablespoon melted butter, $\frac{1}{2}$ lb. grated cheese, season with salt, cayenne and dry mustard to taste. Moisten with 1 tablespoon water. Mix, and spread. Other cheese recipes will be given as soon as possible.

Floor Paint.—You can paint hardwood floors quite successfully, but the paint will likely wear off sooner than when on softer woods. Soak 2 ounces good glue for 12 hours in cold water, and then melt it in thick milk of lime (prepared from 1 pound of caustic lime) heated to the boiling point. Stir in linseed oil until it ceases to mix. If you happen to get in too much oil, add some lime paste. Mix with any color not affected by lime. For yellow-brown or brown-red colors, boil in the ground color a quarter of its volume of shellac and borax.

To take fly specks off furniture, first wash with equal parts vinegar and water, then polish with one of the following mixtures: (1) One wineglass olive oil, 1 of vinegar, 2 tablespoons alcohol. (2) Two parts crude linseed oil, 1 part spirits turpentine, a little salt. Apply with a soft woolen cloth, leave on an hour, and polish with chamois.

Strong borax water will remove the smoke from blackened walls. If you mean liquid soot, which has hardened, we cannot answer. You might try strong lye. Can anyone else answer this question?

Letter from an Islander.

"Islander," Bois Blanc Island, O. C., kindly sends the following recipes. By the way, Islander, why not write us up a little sketch about your island? There is something fascinating to us "land lubbers" about the very name island, and when it is "Bois Blanc Island"—why, imagination fairly roves! I spent two weeks on an island once, and enjoyed it so much! The sort of "amphibian" life suited me to a "T," and everything was so different and so interesting. Even the very talk of the people of boats, and fishing, and storms, and weeks was so different from what we had been used to; and then all the other queer things—fossils along the shore, curious light effects on the water, troops of Merganser ducks swimming along "like mad" with their little pink feet paddling out behind, and fast distancing us, no matter how fast we rowed

after them! But I must stop. Write us about your island, won't you?

Charlotte Russe Filling.—Make a custard of a cup of milk, one egg, and a tablespoon of sugar. Just before removing it from the double boiler, stir in a tablespoon of gelatine, which has been soaked in cold milk, to cover it, until it was soft, and then dissolved in a little of the hot custard. Remove from the fire, flavor, and cool. Before it begins to set, stir in a cup of cream that has been whipped very stiff. Pour this over lady fingers made from any good sponge-cake recipe.

Potato Doughnuts.—Cook 3 medium-sized potatoes, drain, and mash fine, salt to taste. Add two teaspoons of butter, 2 cups of granulated sugar, 1 cup of sweet milk, 3 eggs, five even teaspoons of baking powder, about 6 cups of flour (1 at a time), flavoring as desired. Mix well, take out a little at a time on to a floured board, cut out, and fry in a deep fat. This makes about 5 dozen.

Oatmeal, or rolled oats, Macaroons.—One tablespoon of butter (well creamed), 1 cup of granulated sugar, 2 eggs (without beating), 2 cups of rolled oats, 1 cup of flour, 2 teaspoons of baking powder. Mix well, and drop a teaspoon of the batter on a well-buttered paper in a dripping-pan, and bake in a moderate oven. Half an almond, or a raisin, may be put on the top of each.

Free-kirk Pudding.—One coffee-cup of suet (cut fine), 1 coffee-cup of raisins, 1 coffee-cup of flour, 1 teacup of sugar, 1 teacup of sweet milk, 1 egg, 1 teaspoon of baking powder, pinch of salt. Boil or steam three hours.

Corn-meal Puffs.—One cup of sweet milk, 1 tablespoon of butter or half lard and butter, 1/4 teaspoonful of salt, 1/2 cup (scant) of corn meal, 2 eggs, 1/2 cup of granulated sugar, 2 cups of flour, 2 teaspoonfuls of baking powder. Scald the milk, add the shortening and salt, and stir in the corn meal (granulated yellow meal preferred). Stir, and let thicken a few moments, then cool. When cool, add the egg, beaten without separating, and the sugar, flour and baking powder sifted together. Turn into a hot, buttered muffin-pan, and bake 20 minutes in hot oven.

More Wrinkles from "Wrinkles."

Dear Dame Durden,—You said something so nice about the farm a short time ago that it gave me a pleasant glow all over, and I felt like sitting down and writing to you at once. It does me good to hear people eulogize a little over the farm sometimes. Can you imagine a girl preferring a dingy office or dressmaker's sewing-room to life on the farm, with poultry, bees, garden, yes, and even cows, that many maidens seem to turn up their noses at, in these advanced times? Was it not a milkmaid who heard "the old, old story at five o'clock in the morning?" Many a maid, who is dragging out a miserable existence, mewed up indoors, might find health and happiness on the farm, if she would give even a part of her time to one of these outdoor occupations; that is, if she would only put a little enthusiasm into her work. To my mind, it is a great thing to have a hobby. My ducks are my hobby, and I find them most interesting. I have shipped them all over our fair Dominion, from Algoma to New Brunswick, this winter; thanks to "The Farmer's Advocate." It is very gratifying when one has shipped a bird miles away to receive a card saying the purchaser is pleased with it. I am glad to say I have received many such cards this winter. I am afraid when I get on my hobby, it will run away with my pen, so must stop.

I must not forget to give the Ingle Nook a wrinkle: How to turn a superannuated bedstead into a comfortable veranda seat.—Use the head of the bed for the back of the seat, then cut the foot in two for the ends; one of the sides, cut the right length, does for the front. If it is a French bedstead, the iron castings can be moved round to hold it together; then a board seat fastened in. It will probably want a little cut off the legs to make it the right height. Fitted up with a mattress cushion, and two or three nice feather cushions, you have a seat to dream in. It makes a nice hall seat in

winter. This is not original, but I have tried it.

To dye lace curtains or blinds a pale yellow. Take a handful of red onion skins, boil 20 minutes in a quart of water, then add a lump of alum, the size of a walnut. When dissolved, strain, and add sufficient water to cover the article to be dyed; put in the goods, and let simmer for half an hour; then rinse in cold water. It is safer to try a piece of the goods to be sure you have the shade you desire, which can be regulated by the quantity of water you use.

Where have you been this long time, Wrinkles?

An Answer from "Jack's Wife."

Charlotte Russe.—One pint cream, whites of 2 eggs, 2 teaspoons granulated gelatine. Dissolve gelatine in as little boiling water as possible, then cool; whip cream and eggs very stiff (separately at first), then add all together, and flavor with any extract or wine, as preferred, and sweeten with about one-quarter cup sugar. Line a mold with lady-fingers or light cake of any kind, using any crumbs that may be left, in the bottom, which is best covered with white paper to prevent sticking. Now turn the cream, etc., into the mould, and chill thoroughly. Turn out on a dish, and serve. In this recipe, neither the egg nor gelatine are absolutely necessary, but they add to the firmness and nourishment.

The true Charlotte Russe is always made in this way—whipped cream and cake—but a variety of "Charlottes" may be made by using bananas or other fruit in the bottom instead of cake. Or beat the banana to a cream, and use instead of half the cream. Or a light custard may be made, using fruit juice instead of milk, and bake in a mold lined with cake. For example, apple Charlotte: Melt 1/2 cup butter in 2 cups hot, strained apple sauce. When cool, add 3 beaten eggs, 2 cups sugar, and any desired flavoring (a dash of lemon juice, or grated rind is nice); line mold with cake, bread, or cracker crumbs, put in custard, and cook gently for 20 or 25 minutes. Eat cold, with whipped cream.

By using a little gelatine, which is a useful and economical dessert, one can make nice dishes of scrapes of fruit juice left from berries, cherries, or such things. If the fruit is strong, weaken with water, and follow the directions given with gelatine (I like Knox's plain gelatine, as it is always good, and recipes are very plain), using the fruit juice instead of the water in directions. Instead of all cake to line the mold, nuts, or any sliced fruit, or even cooked fruit, if drained of all juice, may form the bottom of mold. I hope this is plain enough for even new beginners.

JACK'S WIFE.

A whole heap of thanks for the violets. They were very sweet. Another heap of thanks also for the recipe. I should think "New Beginner" will be able to follow it nicely.

Is This a Discovery?

By the way, Chatterers, I came on this in a magazine this week: "Stove blacking mixed with a very little ammonia will not burn off." Wonder if it's true. If any of you try it, will you let us know about it, please?

D. D.

Letter from "Grandma"

Dear Dame Durden,—May I come again so soon? I would like if any of the Chatterers could explain how to make a "hopper." I think Mr. Clark called it when he advocated it at Farmers' Institute meetings—for feeding chickens grain and small seeds. He said it saved a lot of extra work in caring for them. He explained making a drinking fountain. Take a saucer, and a small can, and punch some holes around the mouth of the can. Fill it with water, and invert in saucer, and the chicks cannot get wet or drowned. I will now give my recipe for keeping moths out of wool carpet. Take tobacco, or old cigar stubs that will accumulate, if you have men around, and dry them in the oven and powder them fine. Sprinkle around edges of carpet, and after it is tacked down, go all around, and sprinkle between base and edge, three or four times a year.

I have failed to find the moth or carpet bug that will chew either carpet or tobacco, and I have tried it for years now. I find printer's ink also good. If you have open cracks in floors, use plenty of papers, and let them lap well. I find a good thing for filling cracks, in either ceiling or floor, is to take common whitening and pour hot water on it, and add the same quantity of plaster of Paris to thicken it. Apply very quickly, as it hardens soon. For floors you are painting, I find it works well. I hope I have put this plain enough, and it may benefit someone. Have I trespassed on your good nature, and if not I may come some other time?

Hastings Co., Ont. GRANDMA.

Trespassed on our good nature, Grandma! Not at all. We will keep the Ingle Nook arm-chair especially for you. We have referred your question re hopper to the "Poultry" department, where it will be answered.

Young Ladies' Club.

Dear Dame Durden and Nookers,—I have never come to the Nook before, but I would like to ask if someone could give me advice, through your excellent paper, how a number of young ladies could advance the interests of the church by clubbing together to get something in the shape of a circle or tea of some kind to make a little money.

I'd like to send some receipts, but I'm afraid I'll wear out my welcome by staying too long.

LOTIE.

Elgin Co., Ont. Send the recipes next time, Lottie.

Cleaning White Feather.

Please give a recipe for cleaning a white feather? SUBSCRIBER.

Norfolk Co., Ont.

The following method has been recommended for cleaning white ostrich feathers: Cut some white curd soap in small pieces, pour boiling water on them, and add a little pearl ash. When the soap is dissolved, and the mixture cool enough for the hand to bear, plunge the feathers into it, and gently wash until the dirt disappears. Squeeze, and then pass them through fresh lather with a little blue in it. Immerse again in a clear blue water. Shake gently before a fire, or in the sun, and when dry curl gently with a dull knife.

Notice!

Will Ingle Nookers, who have questions to ask, kindly ask them, if possible, a month or more before they wish the answers to appear? The pressure of matter is such that we cannot always answer sooner.

He was a Philosopher.

A lady was recently reading to her little son the story of a little fellow whose father was taken ill and died, after which he set himself diligently to work to assist in supporting himself and his mother. When she had finished the story, she asked: "Now, Tommy, if your father were to die, wouldn't you work to keep mamma?" "Why, no," said the little chap, not relishing the idea of working. "What for? Ain't we got a good house to live in?" "O yes, my dear," said the mother; "but we can't eat the house, you know." "Well, ain't we got plenty of things in the pantry?" continued the young hopeful. "Certainly, dear," replied the mother; "but they would not last long, and what then?" "Well, ma," said the young incorrigible, after thinking a moment, "wouldn't there be enough to last until you got another husband?"

Recipes.

Snow Jelly Cake.—Beat 2 eggs in a cup, and fill with sour cream. Turn out, and add 1 cup sugar, 1 cup "Five Roses" flour, 1/4 teaspoon soda. Bake in layers, and put jelly between.

Rich Coffee Cake.—Two cups butter, 3 of sugar, 1 of molasses, one of strong coffee, one of milk, yolks of 8 eggs, 1 lb. each raisins and currants, 1 lb. chopped figs, 5 cups browned "Five Roses" flour, 3 teaspoons baking powder, and a little salt. Bake in a moderate oven as fruit cake.



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Antidotes for Quarrelling.

A little explained, a little endured, a little passed over, and the quarrel is ended.

Better to suffer without cause than to have cause for suffering.

It costs more to resent injuries than to bear them.

In a hundred ills of contention there is not one of love.

To cast oil on the fire will not put it out.

Go not to law for the wagging of a straw.

When one will not, two cannot quarrel.

An enemy gained is a friend won.

A victory over temper is a victory indeed.

Prayer for one's self helps one to think charitably of others.

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The Only Package Dyes Which Give Special Colors for Wool and Silk, and for Cotton, Linen, and all Mixed Goods.

Diamond Package Dyes for Cotton, Linen or Mixed Goods will color wool, silk, cotton or linen in the same bath better than any other dyes ever produced. For the finest results, however, different strengths are needed for animal products and for vegetable products, therefore the Diamond Dyes give the ladies one dye for silk or wool, and one dye for cotton, linen, or mixed goods.

The crude and weak package dyes put up by some speculators to imitate the DIAMOND DYES, have brought dismay and ruin to many homes. They produce dull, blotchy and hideous colors, destroying good and valuable materials, and are positively dangerous to handle. Such dyes are sold by some merchants for the sake of the big profits they yield.

In all well-regulated and economical homes, our women at all times make use of the DIAMOND DYES when doing home coloring. Never accept from your dealer or merchant substitutes for Diamond Dyes; no other dyes can do your work as you would have it done.

Send your name and address to Wells & Richardson Co., Limited, Montreal, P. Q., for Instruction Book, Card of Dyed Samples, and Verse Story entitled, "The Longjohns' Trip to the Klondike." FREE to any lady residing in Canada or Newfoundland.



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

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

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FARM LABORERS—The Salvation Army will undertake to furnish suitable married men as farm laborers, lessees, stablemen men for railway construction work etc. In making application please state what house accommodation can be furnished. For application forms write to Brigadier Howell, James and Albert streets, Toronto, Ont.

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FARM to rent in Red River Valley—640 acres all fenced; 30 in cultivation; good buildings, good water, plenty of wood; within three miles of railroad station. Tenant must provide all his own equipment. Long lease to satisfactory tenant. Apply Box 44, Farmer's Advocate, Winnipeg, Man.

GOOD experienced farm hand wanted. State wages. Apply Mc. Farmer's Advocate, London.

WILL sell Belvoir—Silver medal farm of the Province. About 200 acres pasture on the noted Delaware Flats; 100 arable. Will grow anything that can be produced in the Province, but peaches, corn, wheat, tobacco, hops, etc. Further particulars address Richard Gibson, Delaware, Ont.

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Grow Mushrooms in spare time. A crop all year round. Anyone can grow them from our special spawn. Immense profit. Undersigned will buy your crop. For directions write to-day, Fungus Co., Tecumseh, London, Ont.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 30 cents.

BUFF ORPINGTONS for cash. 8 yearling females with 1 exhibition cockerel \$10. Exhibition females \$2 up. Don't wait. H. Weston Parry, Princeton, Ont.

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BUFF ORPINGTONS—Eggs for hatching. \$1 per 15. Also pullets. E. Jeffs & Son, Bond Head, Ont.

BARRED Plymouth Rock eggs for sale from No. 1 egg layers, headed by twelve-pound imported cockerel; two dollars per fifteen. Herbert J. Miller, Lorenz.

BUFF Orpingtons. Eggs \$1 per 15. S. G. Meates, Brantford P. O., Ont.

BUFF Orpingtons exclusively. Eggs from fine colored blocky females. Mated with solid Buff cock weighing 10 lbs. One dollar per fifteen; five dollars hundred. Hugh McGregor, Caledonia, Ont.

EXHIBITION Buff Orpingtons—Winnings at Eastern Ontario, March 1906; Every prize except third cock. Eggs, \$5 per 15. A. W. E. Belyer, Ottawa South, Ont.

LAYERS, great payers, prizewinners; won over 200 firsts at seven shows, including Ontario. Eggs, per setting, \$1, or \$5 hundred, from Barred and White Rocks, White and Silver-laced Wyandottes, Brown and White Leghorns, Black Javas and Buff Orpingtons. \$2 per setting for Black Orpingtons and Blue Andalusians. F. W. Krouse, Guelph.

METAL BROOD COOPS—Rat, mink, louse proof. Greatest hit in poultry-raising. Agents wanted. C. Hoskins & Co., Quincy, Ill., U. S. A.

NOTICE that Rhode Island Reds are coming to the front. Have single-comb variety eggs, \$1 for 15. High-class birds. Satisfaction guaranteed. Frank J. Barber, Georgetown, Ont.

S. C. W. LEGHORNS. Layers and payers. \$1. 15 eggs, \$1; 100, \$4.50. E. C. Apps, Brantford Ont.

SINGLE-Comb Black Minorcas and Barred Plymouth Rocks. Grand winter layers. Winners at Guelph and World's Fair, St. Louis. Balance of season, 15 eggs \$1. F. A. Faulds, 11 Victor street, South London.

WHITE Wyandottes, the popular business breed, Duston strain. W. D. Monkman, Bond Head, Ont.

WHITE Rock eggs for hatching, \$2 per 15. Good hatch and satisfaction guaranteed. Geo. M. Shephardson, Sombra, Ont.

WHITE Wyandotte eggs for \$1 per setting; three settings, \$2; or \$4 per hundred. F. W. Krouse, Guelph.

WHITE Wyandottes exclusively. Strongly fertilized eggs from heavy-laying Martin and Duston strain, one dollar per fifteen. Five dollars per hundred. Daniel Y. Green, Brantford.



The Aster.

If you are wise, you probably have your Asters in long ago, as advised in the "Flower" department away last winter. If you are wiser still, you will have made two or three successive sowings, and will have transplanted the earlier ones two or three times in order to develop hardy, sturdy plants. If, however, you have neglected to put in any Asters at all, you may still sow some out of doors, and with care you will have a good showing of bloom in late September and early October.

The best Aster bed is a deep one of pure woods earth; but if this cannot be got conveniently, a sandy loam well enriched with very old manure is a very good substitute. Sprinkle ashes freely into the bed when making it, and give top-dressings from time to time during the summer. Set the plants one foot apart each way. If you have any of the branching kind, place them two feet apart. Cultivate with a hoe once or twice a week as long as possible, then mulch with grass clippings, or, if you dislike the appearance of these, stir up the soil carefully with a small garden trowel, and remove all weeds by hand.

Frogs and Toads.

In your issue of April 26 there was an article, "How Humming Birds Hatch Out." I was very much interested in it. Can you tell me the difference between a frog and a toad? Frogs are fast disappearing in this part of the country, but toads are plentiful. I would like to know how the toads are propagated. Do they spawn like frogs, or are they born? Sometimes in summer there is a shoal of tiny little things, and it is hard to walk without treading on them. If you can give me the information, I shall be very pleased and much obliged. York Co., Ont. MRS. J. RUSH.

Frogs and toads are both batrachians, a branch of the animal world which is provided in its early or tadpole stage with a breathing apparatus very similar to that of fish. Both frogs and toads are hatched from eggs, those of the frog appearing in the water of swamps in early spring in large gelatinous masses filled with black spots, each of which is an egg. The eggs of the toad are not laid in masses, but in strings or chains, sometimes three or four feet in length, and often stretched among the long grass beside the water. They are usually deposited later than those of the frog.

When the egg is hatched, the creature first appears as a black oblong body with a tail. Having now, as mentioned above, a gill-like breathing apparatus (branchia) on each side of its head, it can live wholly under water, and so it goes wiggling about, up and down, most marvellous changes occurring meanwhile, both in its appearance and construction. Little by little the branchia disappear, being drawn into a cavity of the chest, where, under protection of a sort of gill-cover, they eventually develop into lungs in preparation for the time when the creature becomes amphibian. At the same time, just behind the head, two little projections appear, which presently develop into legs. A little later another pair of legs make their appearance in front, and the tail is gradually absorbed into the body.

The section of batrachians to which the toad belongs is known by the absence of teeth, the well-developed ears and tongue, and the hard, warty skin, which secretes a peculiar acid fluid. Toads live altogether on the land, except during the breeding season. Like frogs, they absorb moisture by the skin, which is cast at intervals and swallowed at a gulp.

Give Asters plenty of water, enough to soak right down to the roots, and at frequent intervals, and remove all flowers as soon as they fade, with the exception, of course, of any you wish to save for seed. As the first flower that opens is usually the best, it is well to tie a string about it to mark it, and save it for seed. It is not advisable, however, to save seed from the same strain of Asters more than once, the second year's growth being likely to revert back to the common "yellow-eyed" sort from which the choicer kinds have been evolved.

Asters are peculiarly susceptible to the ravages of both insect and fungous pests. Keep a sharp lookout for the black beetle, and if even one should appear kill it. If numbers of them surprise you some morning, brush them off into a pan of kerosene, or spray with Paris green. For fungous disease spray with copper-dine (weak Bordeaux mixture).

However, on account of their great beauty, and their long duration of bloom, Asters are well worth the trouble one may have in fighting off pests. For cut flowers, too, the choicer kinds are unsurpassed, resembling great bunches of woolly Chrysanthemums, and keeping crisp and fresh, even for two or three weeks, if one takes the precaution to change the water every day, and clip the ends of the stems from time to time.

Perhaps the most beautiful Asters of

A curious superstition has given the toad a bad name. For long enough it was supposed to be "venomous." Even Shakespeare has caused it to be the first ingredient in the malodorous pot brewed by the three witches in "Macbeth."

"In the poison'd entrails throw:
Toad that under cold stone
Days and nights has thirty-one
Swelter'd venom sleeping got,
Boil thou first i' the charmed pot."

Nevertheless, the toad is not only one of the most harmless, but one of the most useful of our little animals. During the short summer nights, he keeps himself busy indeed snapping up with his marvellous tongue, myriads of injurious grubs and caterpillars; and in some places wise gardeners who have learned to look gratefully upon the warty back, even go so far as to buy toads to put in their gardens.

The large green frog is meeting every year with more favor as a source of food. As only the hind legs are used, the toad-bit is likely to be an expensive one. Nevertheless, all the best hotels and restaurants now have them on the bill-of-fare. In France, frog farms have been found quite lucrative.

In the old fable of the children and the frogs, it will be remembered the frogs, like Balaam's ass, found voice and spoke thus: "Boys, cease your cruel play. What is fun to you is death to us." It is scarcely to be imagined that poor froggie enjoys any better the sensation of being raked up by the scow with immense wooden rakes built for the purpose. This, however, is the way they are caught in France.

A Comfort.

They that sow in tears
Shall reap in joy,
Sang a poet heart in the long ago,
"Midst depths of sorrow, pain and weep
And what to him was truth and life
Has shone through all the ages' strife,
To be at last our beacon light
Of comfort in the darkest night
They that sow in tears
Shall reap in joy."
Elizabeth Barrett Browning

What is the difference between an office boy who has been discharged and a man eating a tough beefsteak? One gets a kick going and the other has a kick coming.

all are the Ostrich Feather, Comet and Chrysanthemum varieties, all of which have long loose petals, very beautiful in the white, light pink and mauve species; one would always think it a mistake, in fact, to choose the crimson or purple kinds, the others are so much prettier. Purity and Daybreak are very fine also, but stiffer, the petals being regularly incurved instead of loose and wavy. The quilled varieties are scarcely to be recommended.

In setting out Asters, it is well to notice the height to which the different kinds grow. The branching varieties (Simple and American), also the Purity and Daybreak, grow to a height of two feet, hence should be placed at the back of the border. Ostrich Feather may be placed next to these, then the Comets, and last of all the dwarf varieties, which seldom grow over a foot in height.

How to Destroy Ants.

For a long time I used to be greatly annoyed by two or three colonies of ants that had made large mounds in conspicuous places on the lawns. Hot water and various other alleged remedies seemed not to discourage these pests in the least. Finally, I invented a scheme. Remembering the great fondness ants have for sweets, I filled a teacup half full of granulated sugar, moistened and stirred it until it became a thick paste, to which I added a teaspoonful of Paris green. I then placed portions of the paste in various places about the mounds and in a very few moments the thousands of ants in the colonies were ravenously devouring what they apparently considered a rare delicacy. But their greed was their destruction, and the troublesome colonies by this simple means were completely annihilated.—Edgar A. Higgins, in Country Life.

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Drouth, Rabbits, and Disaster.

While it is broadly true that the great West of New South Wales, Australia, taken as a whole, has not had a recurrence of acute drouth since the close of the memorable 1902, the same, unfortunately, is not true of the corresponding country in the sister State of Queensland. Lying away to the west of a line running from the source of the Paroo River north to the Western part of the Gulf waters, is a drouth-stricken region that has almost passed out of recollection.

Prior to the great drouth that fell upon the whole of Australia, Western Queensland was the source from which the bulk of the meat supplies for Sydney, Melbourne and Adelaide were drawn; but to-day it is little more than a blank. The Cooper, the Diamantina, the Farrar and the Georgina are but chains of water-holes, none of them having flowed for over twelve months. All the smaller creeks are dry water-courses, and have not been known to run for three years. The holes in the larger watercourses have lost their capacity for holding water. This is caused by the amount of sand blown into the channels from time to time, and the absence of sufficient rainfall to scour them out. Much of this western country consists of red sandhills. Upon these hills every vestige of plant-life has been burned off. Exposed to every wind that blows, these hills are constantly on the move. Once the sand begins to accumulate, a new hill is formed. The slightest obstruction will arrest its progress, and rabbit boards have found it necessary in this class of country to erect netting fences three times the ordinary height, in anticipation of the movement of sand.

The exceptionally slight rainfall experienced in the West for three years past has left the country in a hopeless state. At Camooweal, the rainfall for twelve months ending December last was 1.28 inches; at Boulia, 1.22; at Windimah, 1.54; at Canterbury, 1.74, while at Birdsville, in the extreme west, it barely reached an inch. On one portion of a station half an inch may be registered, while half a mile on either side no rain fell. These records serve to indicate the existence of a severe drouth at the present, a continuation of the drouth that decimated the herds of the West.

What has been the consequence of this continuous dry weather? What but the abandonment of scores of runs, and the ruination of their owners. In the west and south-west of Queensland, something like 90,000 square miles of country have been abandoned, while another 20,000 miles are being held in the hope of some day recovering the value of the improvements. It is estimated that the improvements upon this abandoned country represent an original expenditure of nearly \$2,500,000. These improvements hardly exist to-day. Fences and yards have gone to ruin, tanks have silted up, and dams have broken away, while the homesteads are total wrecks. Some of the pioneers were in poverty in Melbourne or Sydney, others were enjoying sinecures in Queensland, while others were dead—death in two instances being by their own hand. One who, when the seasons were good, refused £450,000 for his properties, to-day hasn't a penny. The pioneer of another station, who handled big cheques in his time, is occupying a position as groom. Another is in the Dunwich Asylum—and there are too many others!

When in the period of its prosperity, this western country was sending meat to the southern capitals, the stock route to Hungerford often had a dozen mobs along it in the day. Thargomindah and Norley—about 3,000 miles of country—frequently sent out three mobs a week, while other routes were equally as heavily taxed. Bulloo Downs, a station close to New South Wales, used to carry 56,000 head. These were exceptionally fine cattle, as the remnants of the herd show to-day. They were known as the B. D. I., and this brand always topped the southern markets. This fine herd was reduced by drouth to 2,300, but when the seasons improved they increased to 5,000. The stock and run were recently purchased by Mr. Kidman for £23,000, a sum equal to stock values at £4 10s. per head, with the lease thrown in. The same purchaser closed for Thargomindah and Norley a few months ago, with 6,000 head of cattle, for

£26,000. Prior to the drouth Noca-tunga station carried 42,000 head. As water and grass became scarce, the owners reduced stock as rapidly as possible, but when the stock routes were closed, owing to the absence of water, the cattle died by the thousand on the run. After the rain in 1903, a general muster was made, and 1,500 head collected out of a stranded herd of 42,000. The run, consisting of 3,000 miles of country, is, with difficulty, carrying 3,500 head to-day. Eulbertie run was used as a breeding station, from whence the Thargomindah and Norley herds were replenished. In the prosperous days, this station carried 40,000 breeding cows. To-day it is abandoned. On this run there is a water-hole, part of the Cooper, that never failed in its supply of water. During the drouth, no less than 12,000 bullocks perished at this hole. They travelled over dry country for many miles, rushed the water, drank to excess, and were unable to get out again. All over these abandoned runs bleached bones and frames of cattle sadden the heart at every turn. All the runs along Farrar's Creek, down as far as Haddon's Corner, were depleted of their herds, while the whole of the country from "The Corner" to the South Australian border is practically abandoned.

The people of the West never tire of impressing on the visitor that the country is the best in the world for stock if it only were favored with 12 inches or 15 inches of rain in the year. To look at the country now, it would be difficult to resist the conclusion that it was ruined. From Adavale to Birdsville, there is nothing but dust—all vegetation is gone.

Second only to drouth, the rabbit plague ranks as the greatest difficulty in the way of re-occupation of country in South-western Queensland. The same trouble exists to an alarming extent all along the southern border of the State as far east as Goondiwindi. With the exception of the north-eastern part of the Warrego Rabbit Board District, the whole of that district is practically in possession of the rabbits. Their increase, however, has been greatly retarded by the dry weather, but should good seasons return, the increase will be irresistible. The general opinion in the west is that the country can never be profitably occupied, even during the most favorable seasons, until the rabbit pest is subdued. Nothing that the pastoralists can do will even check the increase of the pest, because the runs are so large that the cost of fencing would be too great. The expense necessary to cope with bunny cannot be incurred on cattle country, because the returns are too slow from that form of the pastoral industry.

As illustrating the trouble rabbits are causing, a few instances in Southern Queensland are worth mentioning. The Australian Pastoral Company occupies 2,580,000 acres. This area is netted in.

Half the country was treated for 10 months by every known means for destroying rabbits. The cost was £1,760, and when operations ceased, rabbits were more numerous on the treated area than at the commencement. The company has now commenced an authorized expenditure of £50,000 in subdividing the run into 20,000-acre blocks as a means of more effectively dealing with the pest. The owners of Charlotte Plains netted 400 miles of country, at a cost of £65 per mile. Within this area 12 men are constantly engaged at rabbit destruction, the cost of which runs into £3 15s. per mile, an annual outlay of £1,500. Another run on the Nebine River is practically abandoned, rabbits having destroyed every form of plant-life upon it. These runs consist of first-class sheep country. Were it cattle country, the expenditure would be impossible. In the far west, the intensity of the plague is almost as great as in the south. All the young mulga on miles of country has been destroyed by rabbits. They climbed the bushes, and removed the bark to a height of 4 feet and 5 feet, and even nipped the tips of all the small branches. They burrow about the roots, and eat the bark off the roots, thus obtaining a greater supply of moisture. The bark, however, forms into a hard ball in the inside, and when water is taken, fatal results generally ensue. If rabbit destruction depends upon the efforts of pastoralists

with the present methods, then it is only a matter of time when the rodents will be in possession of three-fifths of the continent.

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.

FLAXSEED FOR CALVES.

How should unground flaxseed be fed to calves, from four weeks up to three months? Give quantity by measure. I see the word "little" too often used to measure, by a "little" of this or that. I would like to measure by ounces or pounds, and not a little. Is ground flaxseed better than whole seed boiled?

A READER.

Ans.—The best herdsmen do not feed by rule; they use their experience and judgment, varying quantity and kind of feed, according to the individuals they are handling. We take it that our correspondent's calves have been getting a generous ration of whole milk up to the age of four weeks. If so, his best plan is to prepare the flaxseed by soaking in water for 12 hours in the proportion of 1 to 6 by volume, then boiling for an hour or so, and simmering for several hours. Add to the skim milk or partially-skimmed milk, of this resulting jelly, the equivalent of three or four tablespoonfuls of the dry seed at first. Gradually increase the quantity till in two or three weeks each calf is getting with its skim milk the equivalent of half a pound of seed. For making flaxseed jelly or gruel, the whole seed is best. For mixing with bran or meals for dry feeding later on the seed should be ground, and should be fed in moderation, as being so full of oil, heavy feeding of flaxseed is liable to injuriously affect the joints. Indeed, crushed oil cake is safer to feed, and is good enough.

HEAVES—PREPARATION FOR CORN AND ROOTS.

1. Mare is very bad with heaves. Has been getting medicines, but doesn't seem to be any better. Will you be kind enough to tell in your magazine what medicine to give her, and what kind of feed for her? Should she be made to work?

2. Advise how to prepare the ground for corn, mangels and turnips. Should the manure be spread, and left on top of the ground, or plowed under and how deep?

J. K. L.

Ans.—1. There is little use in doctoring for heaves. If you could sell the mare to some one who would take her out West, she might recover, or, at least, cease to manifest the symptoms of the disease. See answer to J. P. R., elsewhere in this issue. Keep on using her, but not at fast work.

2. Plow clover sod in fall for roots and fall or spring for corn, spring preferably, if time permits. Spread manure fresh from stable in winter, except on hilly plowed ground, in which case it is better to manure in spring. Winter-manured sod, plowed four or five inches deep in spring, is an ideal preparation for corn. Harrow or disk the fall-plowed land as soon as dry enough in spring. Give an occasional stroke thereafter to keep the surface mellow. The more thoroughly the manure is worked in, the better. For a discussion on methods of planting, see recent articles in this paper. It is rather late in the season to devote much space to this subject.

WATER CONTENT OF ROOTS.

I have been told that cattle having water in front of them all the time will do as well without roots as with. We put water in our stable last year, and found the bowels of the cattle were too loose when fed an average amount of turnips (are not so bad with mangels). What amount of water do turnips, mangels and beets contain? Which is the better for cattle, in general, that always have water? Roots take so much labor, I would like to do without, if I

could profitably. Please inform as soon as possible as to the best and cheapest way of feeding watered cattle. C. H.

Ans.—According to Jordan, mangels contain 90.9 per cent; turnips, 90.5 per cent.; carrots, 88.6 per cent., and sugar beets, 86.5 per cent. of moisture. Mangels and turnips are thus practically the same in point of succulence, mangels being just a trifle more watery than turnips. We have never observed any difference in the laxative properties of these two roots. The feeding value is quite similar. Mangels are rather better for milking cows and growing stock, having a little more protein and ash. Many stockmen, however, especially Scotchmen, are partial to turnips for ordinary stock-feeding. Sugar beets are better than mangels, but not enough better to pay for extra cost of raising them, and smaller yield. Water constantly before the stock does not take the place of roots. If our correspondent has previously been in the habit of turning his stock out into a cold barnyard to drink only once a day, we can understand why keeping them in a stable and having water before them will result in their drinking more water, and also being somewhat looser in the bowels. Exposure to cold has a constipating tendency. We would advise growing enough roots to allow a mature cow one to two pecks per day, if receiving silage, and two to four pecks, if not getting silage.

Veterinary.

WARTS.

I have a young colt which is badly bothered with warts. Its nose is covered, preventing it from eating. What would be best to do to rid it of them?

SUBSCRIBER.

Ans.—If the warts have long necks, clip them off with scissors. If not, rub well with castor oil every day, and if this does not remove them, dress them once daily with butter of antimony applied carefully with a feather.

WHITE SCOURS IN CALVES.

My calves mostly die when three days old. Quite a few of my neighbors are losing theirs the same way. They are strong when born, and drink the first day and next morning all right. Are all right in bowels the first day, then they start to scour, always getting worse, till it comes through them like water, and has very bad smell. A. R.

Ans.—This is a contagious disease called white scours. The germs that cause it gain entrance to the system through the torn and raw surface of the new-born calf's navel string. Authorities are not perfectly clear regarding the nature of the germ or germs that cause it, but prevention is the only cure yet known. The name white scours is rather misleading, for the discharge from the bowels is not always white, or even dirty white, but the characteristic symptom is severe diarrhoea, with a lightish-colored and foul discharge. White scours affects calves from a few hours to a few days old, but some cases live for days, and even weeks, after the first illness, and eventually die of pneumonia. The disease is often coincident with an outbreak of contagious abortion. The germs thrive in the absence of light and the presence of moisture. For the affected calves, we hold out no hope. When any more cows calve, have them in an uninfected, clean place a week before parturition, and use an abundance of fresh bedding. The calf should be received on fresh, clean bedding. Tie the navel cord $1\frac{1}{2}$ to 2 inches below the navel with a disinfected cord, and disinfect the navel string immediately by holding under it a dish containing a fifteen-per-cent. solution of formalin or a five-per-cent. solution of carbolic acid. Repeat until the navel cord all shrivels up. The formalin treatment has been recommended to us by a veterinarian, who says he has found it very satisfactory. Try it, and report results. The only treatment we can recommend, if after these precautions are observed the disease appears, is a dose consisting of laudanum, $\frac{1}{2}$ dram; tincture of catechu, $\frac{1}{2}$ dram; castor oil, $\frac{1}{2}$ ounce. Given in warm milk as a drench.



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GOSSIP.

During the period from April 24th to May 5th, 1906, official records for 120 cows have been accepted by the American Holstein-Friesian Association. All made seven-day, fourteen made fourteen-day, two made twenty-one-day, and eight made thirty-day records. The averages by ages were as follows:

Forty-five full-aged cows averaged: age, 7 years 9 months 29 days; days from calving, 22; milk, 447.2 lbs.; per cent. fat, 3.44; fat, 15.373 lbs. Eighteen four-year-olds averaged: age, 4 years 5 months 4 days; days from calving, 16; milk, 442.8 lbs.; per cent. fat, 3.45; fat, 14.577 lbs. Twenty-three three-year-olds averaged: age, 3 years 4 months 21 days; days from calving, 26; milk, 395.9 lbs.; per cent. fat, 3.38; fat, 13.367 lbs. Thirty-four heifers classed as two-year-olds averaged: age, 2 years 2 months 12 days; days from calving, 24; milk, 306.6 lbs.; per cent. fat, 3.24; fat, 9.907 lbs.

This herd of 120 animals, averaging about one-half cows and one-half heifers produced in seven consecutive days, 47,231.6 lbs. milk, containing 1,598.439 lbs. butter-fat, showing an average of 3.38 per cent. fat. The average yield for each animal was 393.6 lbs. milk, containing 13.32 lbs. butter-fat; equivalent to 56.2 lbs., or about 27 quarts of milk per day, and over 15½ pounds of the best creamery butter.

The list in this issue is led by Susie Hengerveld De Kol, 22,095 lbs. fat from 432 lbs. milk, showing the very high average for a Holstein-Friesian of 5.12 per cent. fat. Pride Clothilde, 20,768 lbs. fat from 668.9 lbs. milk, and Dijkstra De Kol 20,611 lbs. fat from 484.4 lbs. milk, make fine records and are not far apart.

In the list are the two Canadian cows, Nierop Netherland Clara 71186, age 7 years 10 months 4 days; days from calving, 16; Milk, 402.0 lbs.; per cent. fat, 3.41; fat, 13.717 lbs. Owner, P. D. Ede, Oxford Centre, Ont.

Bessie Ann Talmans 75740, age 1 year 11 months 19 days; days from calving, 17; Milk, 279.7 lbs.; per cent. fat, 3.24; fat, 9.069 lbs. Owner, W. S. Schell, Woodstock, Ont.

MORE STALLIONS FOR ONTARIO.

April 28th, the Athena, from Glasgow, had no fewer than 41 head of Clydesdales aboard, and, as usual, Ontario took a fair share. Mr. Wm. Taylor, Park Mains, Renfrew, who has been shipping so many this year, forwarded six finely-bred horses to the order of Messrs. Prouse & Innes, Ingersoll, Ont. These are mostly well known by name, and include Pride of Boquharan (12277), Baron Kinleith (12456), Woodend Baron (12789), and Stylish Motion, Vol. XXIX., a full brother to the first-prize Highland Society winner, Perpetual Motion, recently purchased from Mr. James Kilpatrick, Craigie Mains. Mr. Wm. Agnew, Langton, Ont., bought a couple of good stallions from Mr. David Clark, Stonehill, Thankerton, with the intention of travelling them in Canada. These are General Benoit (13902) and Blacon's Pride, Vol. XXIX.. The former is bred on similar lines to Mr. John Pollock's Ayr champion colt of last week, the Undaunted Prince, being by Hiawatha, out of a Cawdor Cup mare, and the latter is by Pride of Blacon, out of a mare by Ormonde. In addition, Mr. Agnew got two promising yearlings, one by Sir Simon, out of a Sir Thomas mare, bought from Mr. James Smellie, Bathgate, and the other, by Sir David (12740), bred by Mr. Geo. R. Paterson, Drumalban, Thankerton. In a previous shipment, Mr. Walter S. Park, Hatton, Bishopton, forwarded the stylish, fine-boned, six-year-old, Vigorous (12776), by L. P. to him, to Mr. T. H. Hassard, Mulhrook, Ont. This horse won several prizes at Paisley, Bishopton, etc., last year. To Mr. Allan Mill, Maple Creek, Assa, Mr. David Riddell, Blackhall, Paisley, sold King's Court and King's Stamp, both three-year-olds, got by the well-known Gallant Prince (10552), the sire of the champions, Holyrood, Knight of Cowal, etc. If other countries took half as many as Canada, the Old Country would almost run dry. —[Scottish Farmer.]

The following members of the Canadian Ayrshire Breeders' Association have made application to enter cows in the Record of Performance: N. Dymont, Clappison's Corners, Ont.; H. & J. McKee, Norwich, Ont.; A. Hume, Menie, Ont.; Wm. Stewart & Son, Menie, Ont.; Carlyle Bros., Morewood, Ont.; M. Greenshields, Danville, Que.; Gus. Langelier, Cap Rouge, Que., and R. Blakney & Co., South Qu'Appelle, Sask.

CAUSTIC BALSAM GIVES WONDERFUL RESULTS.

Berlin, Ont., March 22, 1904.

The Lawrence-Williams Co., Cleveland, Ohio:

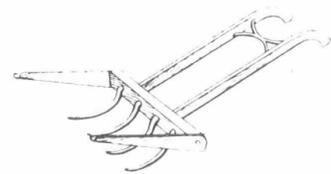
I have been using several bottles of Combsall's Caustic Balsam, and found wonderful results. Kindly send me full information in regard to agency, as nearly all who once give it a trial want a bottle of it. M. S. STROME.

QUESTIONS AND ANSWERS. Miscellaneous.

MANURE TURNER.

Describe a manure turner, that is, an implement drawn by a pair of horses for turning manure in barnyards and straw-stack bottoms. CONSTANT READER.

Ans.—The accompanying cut was made from a drawing sent us by an Oxford Co. subscriber in 1902. The tines are made of 1 or 1½ in. iron, and it turns over something like an ordinary scraper.



Anyone who has a better device is requested to send us drawing and description.

ROUP.

Some of our hens have been going blind, first one eye and then the other being affected. Water-colored bubbles form over the eye, and the hen tries to scratch them. One has recovered after being affected a week, during which time it ate nothing. Several others are also affected. INQUIRER.

Ans.—The trouble is what is considered by the majority of the poultrymen one of the diseases of roup. Some call the disease swelled head or swelled eyes. It comes in all probability from a cold in the beginning, but will spread among a flock, if not checked. It may be due to the fowls roosting in a draft. For instance, in moving fowls from one house to another, often they will take cold, and the eyes swell up, be more or less discharge, and bubbles about the eyes. If the cause is not removed, often the birds become totally blind, and the eyes fill with exudate. In all such cases we recommend the use of Epsom salts in the drinking water, or in a mash. We use about a dessert-spoonful to one gallon of drinking water. Each bird that is affected is given one tea-spoonful of dry salts. The head should be bathed with a weak solution of any of the commercial roup cures, or a five-per-cent. solution of potassium permanganate, or a Sealer's tablet dissolved in a cup of water. The latter treatment, I think, is the best. If you have only one or two birds affected it is not worth while treating them. You had better kill the two or three, and try to remove the cause of the disease. It may be necessary to disinfect the house, if so, use one stacked lime under the dropping boards, to a bushel of which has been added one pint of crude carbolic acid. It may be well to spray the interior of the house with a whitewash containing five per cent. of carbolic acid. Where there is any loss of poisoning from the use of carbolic acid, we have found Zealonia to be a very good substitute. Zealonia is a very considerable disinfectant.

W. R. GRAHAM
The Farm Veterinary Surgeon.

The Kidneys and Uric Acid

THE ALL-IMPORTANT WORK OF THESE FILTERS OF THE BLOOD AND HOW THEY MAY BE KEPT HEALTHY BY

DR. CHASE'S KIDNEY-LIVER PILLS

When the whole vital process of digestion and assimilation of food is completed, there still remains the work of removing from the blood the uric acid, salts and water, and this can be accomplished only by the kidneys. The failure of the kidneys to perform this work reacts on the whole digestive and filtering systems, chokes up the liver, and by means of the circulation of the blood sends the poisonous waste matter through the entire body, giving rise to pains, derangements and disease.

Because of their direct action on the kidneys and their enlivening influence on the liver and bowels, Dr. Chase's Kidney-Liver Pills are the most thoroughly effective treatment available for the cure of diseases of the kidneys.

Among the early indications of kidney disease may be mentioned:

- Backache.
- Fickle appetite.
- Deposits in the urine.
- Frequent desire to urinate, especially at night.
- Rheumatism and sciatic pains, constipation and diarrhoea alternating.
- Dropsical swelling.
- Scanty, dark-colored urine.
- Persistent loss of flesh and weight.
- Prompt relief is obtained by the use of Dr. Chase's Kidney-Liver Pills, and by persistent treatment the kidneys are restored to health and activity.

No medicine which acts on the kidneys alone can possibly prove effective, because in the great majority of cases the liver and bowels are also deranged. Because Dr. Chase's Kidney-Liver Pills have a direct and combined action on the liver, kidneys and bowels, they bring about satisfactory results in the most complicated cases.

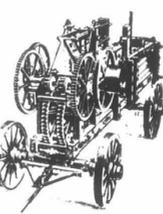
By using Dr. Chase's Kidney-Liver Pills, one pill a dose at bedtime, as often as is necessary to keep the bowels in regular healthful action, you insure yourself against kidney disease and the subsequent suffering from Bright's disease, dropsy, apoplexy or other equally-dreaded ailments. Dr. Chase's Kidney-Liver Pills, 25c. a box, at all dealers, or Edmanson, Bates & Co., Toronto.

ARREST IT—\$50.00 REWARD

A small sample bottle of Ec-zine will be sent free to every reader of "The Farmer's Advocate" who is suffering with disease or eruption—Eczema, Blood Poison, Fever Sores, Cancer, Rheumatic Pains, or any other Germ or Virus disease or sore of any name or nature. \$50 reward will be paid for any case of Eczema that is not promptly cured with Ec-zine. Ec-zine will heal any sore or cure the worst skin and make it look like velvet. Never mind what you have tried; forget the failures made by other remedies, and send for free sample of Ec-zine, which always gives relief and permanent cure. A \$1 bottle often cures the worst cases. Ec-zine is successfully used in hospital and by physicians generally. It is not a patent medicine. If your druggist does not have Ec-zine send direct to us. State nature of disease and years' standing. Address: **The Physicians Laboratories, 806 Boyce Building, Chicago, Ill.**

100 Men Wanted

to sell the **COLUMBIA HAY PRESS.**



We guarantee it the best belt press made or no sale. Capacity, 50 tons in 10 hours. Write for full description and agency.

Columbia Hay Press Co.,
Kingsville, Ontario.

WEDDING stationery. Young ladies who are interested in what is proper in the matter of stationery for weddings, should send for our booklet. Free for the asking. Latest type faces. Best imported stock. **Lynn Side Press, Dept. 5, Simcoe, Ontario.**

DEFORMITIES CURED

CROOKED or CLUB FEET of any variety, and at any reasonable age, can be made straight, no plaster paris, no severe or painful treatment of any kind, and the result is guaranteed. **POTTS DISEASE** when treated in time at this institution, will result in no deformity; paralysis will always be prevented; the health and strength of the patient is at once improved; the growth not interfered with. Plaster paris is never used.



SPINAL CURVATURE even in long standing cases can be corrected by the new and improved methods in use here; plaster paris, felt or leather jackets are never employed. Names of patients recently cured, after all ordinary methods have failed to afford relief, will be furnished on application.



HIP DISEASE can be cured without surgical operations or confining the patient to bed. Abscesses, shortening deformity and loss of motion should always be prevented, and, if already present, can usually be cured. The methods used here in the cure of Hip Diseases in all its stages are radically different and more successful than those generally employed. Write for information.



PARALYSIS and RESULTING DEFORMITIES For no class of affections has greater preparation for successful treatment been made. Deformities of the limbs, joints, or feet, resulting from paralysis, can always be corrected without surgical operations or severe treatment. Paralysis should never be neglected; children never outgrow it; it is not incurable.

CROOKED and DISEASED KNEES Hips, Hands, Limbs and deformities resulting from Rheumatism are successfully treated without pain.



Send For This Book

IT'S FREE FOR THE ASKING

It tells of an experience of over 30 years in the treatment of Deformities and Paralysis and how these conditions can be corrected without surgical operations, plaster paris applications or painful treatment of any kind. Ask for it.

This is the only thoroughly equipped institution devoted to the cure and correction of deformities. Examination and consultation by mail or in person, free of all charge. References furnished on application. Pamphlets sent on request.

THE L. C. McLAIN ORTHOPEDIC SANITARIUM
3100 PINE STREET, ST. LOUIS, MO.

Spruce Row Barred Rocks

ARE STILL LEADING THE VAN.

Have won at the **Ontario, Guelph**, in 1905, 2nd, 4th, 6th and 8th cocks; 2nd, 9th and 10th hens; 2nd pullet, and 8 specials, showing eight old birds and getting a mention on every one.

BERTRAM CHALLENGE TROPHY 3 years in succession, 1901, 1902, 1903, for the four best birds—cock, hen, cockerel and pullet. Also the silver medal for the best male and three females for three years in succession 1901, 1902, 1903, and all specials in the three years except three. This victory in the hottest competition at the Ontario Show places my stock at the head of their class in Canada.

AT TORONTO, September, 1905, 2nd cock, 2nd hen and 1st cockerel, and the Canadian **Barred Plymouth Rock Club Silver Cup** and bronze medal, and the American Barred Plymouth Rock Club Ribbon for best male.

At Toronto birds bred and raised in Spruce Row Yards have won 1st cock three years in succession in 1902, 1903, 1904; 2nd in 1905; 1st cockerel three years in succession in 1903, 1904, 1905. The above winnings are unapproached by any other breeder in Canada.

Stock for sale. Mated trios a specialty. Eggs \$3 for 15 or \$5 for 30.

I. K. MILLARD & SON, Dundas, Ont.

GOSSIP.

Four young Shorthorn bulls, fit for service, sired by the imported Scotch-bred bull, Magstrand, are advertised for sale by Mr. Andrew Summers, Aldershot P. O., near Hamilton, Ont., manager of the farm and herds of Wm. Hendrie, Esq.

In another column appears an illustration of a prize-winning pair of high-class harness horses, exhibited by Mrs. Adam Beck, London, Ont., at the Toronto Horse Show and the Montreal Horse Show, 1906. At the latter show, their winnings included first in the tandem class and first in the gentleman's driving class. The breeding of this pair, one a mare and one a gelding, is interesting. Both were sired by A. Yeager's noted Hackney stallion, Hillhurst Sensation, and out of a trotting-bred mare.

TRADE TOPIC.

ABSORBINE WILL REMOVE BOG SPAVINS PROMPTLY.—Mr. D. B. Miller, Petersburg, Pa., writes under date of July 11th, 1905: "The party I got the bottle of Absorbine is using it on a bog spavin, and it is removing the lump." Absorbine is a scientifically-compounded remedy for bringing about a dissolution of any soft bunch in a mild manner. The results are prompt, and only a small amount required at each application. Your druggist can supply you with Absorbine, or it will be sent express prepaid upon receipt of \$2. W. F. Young, 73 Monmouth St., Springfield, Mass.

THE Hoover Digger

Clean, fast work. It stands the wear and tear.



Favorite in every great potato growing district. Get free catalog. The Hoover-Prout Co., Lock Box 33, Avery, O.

Alberta Farm Lands

Do you realize that time is money, and now is the time to buy. Try this: 620 acres 6 miles from Calgary; 1 mile river frontage; good buildings. All can be cultivated. Excellent soil. No stones or brush. \$30 per acre. Easy terms. Write about it or come and see. And we have others—all kinds and prices.

D. R. MACLEAN,
Alexander Block, Calgary.

EASY MONEY AT HOME

Raising canaries. More profitable than chickens. All indoors. You'll get \$2.50 to \$5.00 each for young singers. Experience unnecessary. To get you interested quickly we send **COTTAM BIRD BOOK** (thousands sold at 25c) and two caker **BIRD BREAD 10 CENTS,** and "CANARY VS. CHICKENS," showing how to make money with canaries, all for 50c stamps or coin. Address **COTTAM BIRD SEED, 38 St. Louis, Ont.**

SHORTHORN BULLS

For Sale: Four nice young bulls; well grown; good coats; fit for service; by our imported Scotch bull, Magstrand; all registered in Canadian Shorthorn Herdbook. The lot for sale at \$300, or your choice for \$75. These bulls are good quality and very cheap. Apply **ANDREW SUMMERS, ALDERSHOT P. O., ONT.**
Valley Farm, Wm. Hendrie, Prop.

TRADE TOPICS.

RHEUMATISM.—The Vitæ-Ore trial offer in this issue will particularly interest sufferers from rheumatism, a disease the nature of which is not well understood, but with which The Theo. Noel Co. deal in a radical manner. Look up the advertisement.

GOOD.—Prof. J. H. Grisdale, Agriculturist, Department of Agriculture, Dominion of Canada, Dominion Experimental Farms, Ottawa, writes: "For the last two months we have been using your preparation, 'Zenoleum,' for the various purposes for which it is recommended, and have found it to be a most valuable and efficacious wash for all skin diseases, for the destruction of lice, for putting the skin in first-class condition, and as a disinfectant for wounds of all descriptions, as well as a first-class general disinfectant. I feel that I can not speak too highly of its various connections, and consider it one of the very best preparations of the kind I have ever tried."

NEW CURE FOR HAY FEVER.—The latest treatment for the prevention of hay fever prescribes systematic and continued exercise taken in timely advance of the season for the appearance of the complaint. Specialists in the disease do not understand its nature. It is not now thought to be a form of catarrh, and local applications have been largely abandoned. The theory that it is rheumatism of the mucus membrane is not accepted. A more favored idea attributes the inception of hay fever to sluggishness of the liver, and bicycle riding is recommended to keep this organ in an active and healthy condition. After hay fever has arrived, the sufferer will find neither comfort or relief in bicycling, but systematic and easy wheeling during the preceding months is warranted to greatly modify the severity of an approaching attack, or to entirely prevent it.

GOSSIP.

Wool lambs sold in Chicago, May 15th, for \$7.65, and clipped lambs for \$6.75 per 100 lbs.

Our readers will notice in this issue a large advertisement of Zenoleum, which has come into quite popular use by feeders and stockmen. The advertisement sets forth its special uses as disinfectant, lice-killer and germicide for cattle. For stockmen are quoted, men whose opinions are samples of many. What they have to say is worth reading.

CAUSTIC BALSAM GIVES WONDERFUL RESULTS.

Berlin, Ont., March 22, 1904.
The Lawrence-Williams Co., Cleveland, Ohio.

I have been using several bottles of GOMBAULT'S CAUSTIC BALSAM, and found wonderful results. Kindly send me full information in regard to agency, as nearly all who once give it a trial want a bottle of it. **M. S. STROME.**

"It seems to me," says Chas. G. Gates, a rich clubman of New York, "that in the analysis of success too much credit is given to plodding, to regularity, to steadiness. While the regular, steady plodder is never idle, it is true of him that he is seldom on fire with energy and zeal."

"Plodding is very well when spurts of fiery zeal diversify it. Otherwise it is not apt to land a man among the millionaires."

Messrs. R. Mitchell & Sons, Nelson, Ont., write: "We have recently sold to Mr. J. M. Gardhouse, Weston, Ont., 12 very choice Shorthorn cows and heifers of the Strathallan, Missie, Village Girl, Stamford and Flora families, all good individuals, and in first-class condition. Among the lot was Missie Flora, of the Marr Flora family, a show cow of the highest order, and others almost her equal. They were bred to our great herd bull, Imp. Lord Rosebery. The calves from this bull are just beginning to arrive, and, judging from their present appearance, they will be top-notchers. We have some good young bulls for sale now, ready for service, having the very best of breeding, and in fine condition; some good herd headers among them."

HORSE OWNERS! USE



GOMBAULT'S CAUSTIC BALSAM.

A safe, speedy and positive cure. The safest, Best SLIPPER ever used. Removes all blemishes from Hooves. Impossible to produce scar or bluish. Send for descriptive circulars.

THE LAWRENCE-WILLIAMS CO., Toronto, Can.

Farm Lands

IN

SASKATCHEWAN

We have a number of well-improved farm lands for sale, at prices ranging from **\$17.00** up to **\$35.00** per acre.

We have the exclusive agency of over 40,000 acres of land west of Davidson, Goose Lake, Eagle Lake and South Battleford district. Some splendid bargains in city property.

Balfour Broadfoot Land Co.
Box 293. Hamilton Street.
REGINA, SASK.

The Repository

BURNS & SHEPPARD, Props.



Cor. Simcoe and Nelson Sts., Toronto

Auction Sales of

Horses, Carriages, Saddles, Harness, etc., every Tuesday and Friday, at 11 o'clock.

Special Sales of Thoroughbred Stock conducted

Consignments solicited. Correspondence will receive prompt attention.

This is the best market in Canada for either buyer or seller. Nearly two hundred horses sold each week.

The Gait Horse Show has worthily won the reputation of being one of the best in the Dominion for a first-rate display of roadsters, saddlers, carriage horses and high jumpers. The dates of the show this year are May 31st and June 1st. Make a note of it, and plan to take in this interesting event.

A WELL-KNOWN BANDA MAN SPEAKS

A Well-known J. P. is Cured of Kidney Trouble of Long Standing by Dodd's Kidney Pills.

Banda, Ont., May 21st.—(Special.)—There is no one more widely known and highly respected in this section of the country than Wm. Bell, Esq., J. P., and the statement he makes below concerning his cure by Dodd's Kidney Pills bears weight and carries conviction with it.

"For more than a year I was a sufferer from kidney trouble," Mr. Bell says. "Always in pain, at times the agony would become unendurable, and I was practically unable to attend to any of my duties. I doctored with several local physicians, and tried every means to get cured, but without success. At last I was induced to give Dodd's Kidney Pills a trial. I have the greatest pleasure in stating that they drove away the pains entirely, and restored me to my old-time health and strength. I am sure I owe this entirely to Dodd's Kidney Pills."

Western Canada Land Co.,

HEAD OFFICE: 38 NINTH STREET, BRANDON, MAN.

Investors, buy a block now: seeding operations over, buyers are coming from all parts of the world.

Two Hundred Thousand Acres in blocks of five thousand acres up, ranging in price from four to ten per acre.

Improved Farms.
Brandon City Property.
Beautiful Section of Land one mile from Berrisford; well improved; CHEAP.

Choice Fruit Lands, Southern Okanagan Valley, British Columbia.



J. B. HOGATE'S
Shires, Clydes, Percherons, Hackneys and Spanish Jacks.

Have yet on hand two Percherons, two Clydesdales, one Shire and two 3-year-old Hackneys, which I will sell at a bargain before the season opens, to make room for my next shipment.

Stables at Weston, Ont. Telephone connection.

J. B. HOGATE, - **Proprietor**



GRAHAM BROS.

"Gairnbrogie," CLAREMONT,

IMPORTERS OF

HACKNEYS and CLYDESDALES

Established 30 years, and winners at all large shows in Canada and United States. Best of stock always on hand for sale. New importation of Royal winners just arrived.



Graham & Renfrew's
CLYDESDALES and HACKNEYS

Our Clydes now on hand are all prizewinners, their breeding is gilt-edged. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-steppers and carriage horses. Yonge Street cars pass the door every hour. Phone North 4483.

GRAHAM & RENFREW, BEDFORD PARK, ONT.

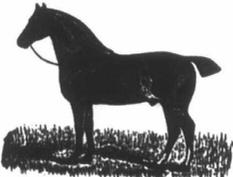


Clydesdales and French Coachers, Imp.

Scottish and Canadian winners at the leading shows of both countries. The Clydes represent the blood of such noted sires as Baron's Pride, Up-to-Time, Royal Favorite, Ethiopia and Acme. They combine size, quality and action. The French Coachers are a big, flashy, high-stepping lot, and are winners in both France and Canada. Our prices are right, and our horses as good as the best.

ROBT. NESS & SON, Howick, Quebec.
Long-distance Telephone.

HACKNEYS and CLYDESDALES



From such noted champions as Baron's Pride, Hiawatha, Marcellus, Macgregor, Baron's Fashion and Lord Loshian, etc. Inspection invited.

For fuller description and prices, write

T. H. HASSARD, Millbrook, Ont.

ROUTE BILLS



Route bills and folders printed with despatch. Up-to-date engravings of different breeds of horses on hand.

Mail Orders Solicited.
The London Printing & Litho. Co., Ltd., London, Ont.

A Bargain

To avoid inbreeding, I will sell the best (imp.) Carriage Stallion in Canada. A grand stocker. Very gentle. Also the grand Jersey Stock Bull, Paul of Glen Rouge No. 62131. A good stock bull and very sure.

E. W. BROOKS, Trent Valley Stock Farm, Stirling, Ont.

No more blind horses - For Specific Ophthalmia, Moon Blindness and other sore eyes. BARRY CO., Iowa City, Iowa, have sure cure

Advertise in the Advocate

THICK, SWOLLEN GLANDS

that make a horse wheeze, have Thick Wind or Choke-down, can be removed with

ABSORBINE

or any Bunch or Swelling caused by strain or inflammation. No blister. No hair gone and horse kept at work. \$2.00 per bottle, delivered. Book 3-B free. **ABSORBINE, JR.**, for manking, \$1.00 delivered. Cures Gout, Tumors, Varicose Veins, Etc. Book free. Made only by **W. F. Young, P. D. F., 73 Monmouth St., Springfield, Mass.** Canadian Agents **Lyman, Sons & Co., Montreal.**



Clydesdales

Having rented my farm, I wish to sell my Clydesdales, 14 head, young and old. Stud horse for last three years, Prince Grandau 9839, bred by McLay Bros. Janesville, Wis. Stock all registered in the American Studbook. One mare imported.

THOS. DENNISTOUN, SR.,
Redwood Falls, Minnesota, U. S.

CLYDESDALES

Imp. Stallions and Fillies. The get of such notables as Baron's Pride, Prince Alexander, Moncrieffe Marquis, The Dean, Montrave Mac and Battle Axe they combine size and quality their breeding is unsurpassed and I will sell them cheap and I will sell them cheap.

GEO. G. STEWART, Howick, Que.
Long-distance Phone.

J. M. Gardhouse, Weston P. O., Ont.

Breeder of Clyde and Shire Horses, Short-horn Cattle, Leicester Sheep. Imported and home-bred. Stock for sale. My motto "The best is none too good." **C. P. R., G. T. R., and Street Railway, 10 miles west Toronto.** Telephone at House and Farm.

QUESTIONS AND ANSWERS.
Veterinary.

LUMP JAW.

Noticed about March 1st on steer, one year and a half old, a lump on lower jaw, about 5 inches from chin. At that time, it was about the size of a robin's egg, and a discharge coming from it of a white color. Blistered it with a liniment, but at present it is as large as the bowl of an eggcup, and very hard, and cannot move it, as it appears to have grown to the bone. There is no matter coming from it at present, as it is scabbed over, but when it knocks the scab off, it is raw and sore-looking. Have it closed in stable at present, as I have been told that there is danger of infection to the other cattle if let out on the pasture. Is this the case? Will it smite others, if running with them in pasture field?

A SUBSCRIBER.

Ans.—There is not much danger of infection of other cattle from lump jaw, unless it is discharging, and the matter drops on the pasture or feed of others. The iodide of potassium treatment has been successful in many cases. Give iodide of potassium three times daily, commencing with one-dram doses and gradually increase the dose by say ten grains, until the appetite and desire for water fails, tears run from the eyes and saliva from the mouth. When any of these symptoms appear discontinue the drug. Repeat in six weeks, if necessary.

Miscellaneous.

PROBABLY INDIGESTION.

Three weeks ago I set a hen in a dry place, and put a little sulphur in the nest to keep off the insects. The hen is now very thin and miserable-looking, and when held with head down, a watery substance runs from her mouth. She has been able to get plenty of fresh water and grain while sitting, and can get out into a small yard. One day I took the hen off her nest, and found her eyes quite closed; in fact, I had to open them. At the time, I thought she had been fighting, as one of the other hens looked just as bad. Last summer, some of my young turkeys were affected in the same way with a watery stuff running from their mouths. I lost very few birds. My hens have been healthy, and laid well all winter.

Ans.—From the description, it is impossible for me to give the cause of the trouble. Evidently the bird has indigestion. Where a bird has water in the crop, or what we term "sour crop," usually, if you hold the chicken by the feet, head downwards, the water will run out, and has a very offensive odor. Some hens become broody when they are run down in constitution. It is not uncommon at all to see an inclination to sit in a bird that is beginning to be sick. In this particular instance, it appears, the bird has been sitting for some time. Usually in cases where a hen is not well, showing signs of broodiness, she becomes very sick after sitting about three to seven days.

I do not think the sulphur, unless used in very large quantities, would cause the trouble mentioned. If you have any more bird's going similar to this one, I would recommend you send one or two to the Bacteriological Laboratory here. Past experience has shown me that oftentimes, from the description given in the letters, we are misled altogether as to the nature of the disease. Just recently, I was quite sure, from the description given in a letter, that the birds in a certain flock were affected with roup. The description in the letter appeared to indicate that there was a discharge from the nostrils, etc. When these birds were sent to the Laboratory, upon examination, I find there was no discharge from the nostrils at all, and that the birds were suffering from indigestion, caused by over-feeding and lack of exercise, probably also a lack of fresh air. In cases of this kind, where there is only one or two birds sick, it is not worth while doctoring. If you are very anxious to doctor, try giving the hen a dose of castor oil, and knocking the crop well, then hold the hen's head downwards and allow the water and oil to run out, after which give another half teaspoonful of castor oil.

W. R. GRAHAM,
Ontario Agricultural College.

Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with **Fleming's**
Fistula and Poll Evil Cure
—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in
Fleming's Vest-Pocket Veterinary Adviser
Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated.
FLEMING BROS., Chemists,
45 GERRARD STREET, Toronto, Ontario

IT WILL PAY YOU

to write us and get full information regarding an agency for "The Farmer's Advocate and Home Magazine."

We have started out to double our present circulation, and we want a live, hustling representative in your vicinity.

If you are open to receive a good business proposition, don't lose any time, but write at once.

Give us full particulars concerning your present occupation. Name two reliable persons as references, and we will immediately inform you of our liberal offer to agents.

THE WM. WELD CO., LTD.,
LONDON, CANADA.

Dr. Page's English Spavin Cure.

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by **Dr. Fredrick A. Page & Son,** 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents: **om**

J. A. JOHNSTON & CO., Druggists,
171 King St. E., Toronto, Ont.

Shire Horses



We breed the very best and soundest, which from birth are kept in their natural condition, neither forcing nor overfeeding for showing purposes. Canadian buyers visiting England are invited to call and see what we have.

No fancy prices, and all delivered free Liverpool landing stage. Correspondence invited. **om**

Station: Athorp Park, L. & N.-W. Ry.

JOHN CHAMBERS & SONS,
Holdenby, Northampton, England

23 Imported Clydesdale Stallions

for sale; also 6 Hackney Stallions. Inspection invited and prices right.

O. SORBY, GUELPH, ONTARIO.

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Usual mountings are silver plated on steel. That's why they rust so quickly. Tudhope mountings are silver plated on BRASS—and guaranteed rustless. Of course BRASS costs MORE than steel—but brass helps to make Tudhope Carriages better for YOU.

TUDHOPE No. 27
is a very stylish, light running buggy—built to withstand hard driving. Made with Concord body and side spring gear. Wheels are bolted between each spoke. Double bar dash rail and hub caps nickel plated on brass. Spindle seat furnished if desired. Full details in our catalogue. Write for free copy.

THE TUDHOPE CARRIAGE CO., Limited ORILLIA, Ont.

Established 1842.
FREE! FREE!! FREE!!! ABSOLUTELY FREE.
\$100,000 PRIZES GIVEN AWAY FREE.

As an advertisement we give you absolutely free a ladies' or gents' size silvered, gold-filled or gun-metal watch, guaranteed for 10 years, and keeps correct time to a second, or a sterling silver handle umbrella, silvered clock, a real diamond solid gold Government hall-marked stamped Ring, Cutlery, Leather Goods, Musical Instruments, Mechanical Toys, Blue Fox Collarette, besides hundreds of other useful or fancy articles which you can select from our grand 1906 list. We give any of these articles free to any person selling 20 packets of Beautiful, up-to-date, Artistic Pictorial Postcards at 10 cents a packet (5 magnificent 10-colored cards to a packet). Our Pictorial cards are world-renowned, and we send you every card different, no two alike. Views of dear old England, Historical Views, Latest Comics, facsimile of Death-warrant of King Charles I., England's Most Beautiful Actresses, etc. It need not cost you one cent of your own money. We pay all postage and duty, and deliver cards and present free to your address. Send us at once your name and address (postage is 2 cents). Don't delay. Write immediately to ACTE & COMPANY (Dept. F. A.), 85 Fleet St., London, E. C., England.

SCOTCH SHORTHORNS

9 heifers, yearlings. 4 bulls, yearlings.
29 heifers, calves. 27 bulls, calves.

All out of imported sires and dams. Prices easy. Catalogue.

JOHN CIANCY, H. CARGILL & SON,
Manager. Cargill, Ont.

MAPLE SHADE SHORTHORNS

Cruickshank and SHROPSHIRE SHEEP

We have now for sale one (imp.) bull, 15 months; also a good roan junior yearling show bull. Catalogue on application.

JOHN DRYDEN & SON, Brooklin, Ont.
Stations: Brooklin, G.T.R. Myrtle, C.P.R. Long-distance telephone.

BROXWOOD HEREFORDS.

A few choice bull calves from my imported stock.

R. J. PENHALL, NOBER P. O., ONT.

FIVE NICE, SMOOTH HEREFORD BULLS FOR SALE.

Two about 16 months and three from 8 to 10 months old. Priced right to do business.

W. BENNETT, Chatham, Ont.
Box 428.

THE SUNNYSIDE HEREFORDS

Twelve high-class bull calves and 4 yearling and 2-year-old bull, we will place at a price that will move them quick. Some choice cows and heifers are yet left for sale. Address: A. F. O'NEIL, Maple Grove P.O. or M. H. O'NEIL, Southgate P.O. Alderton Sta., L. H. & B.; Lucas Sta., G. T.

FOREST VIEW FARM HEREFORDS

Four bulls from 8 to 13 months old; prizewinners and from prizewinning stock. Several heifers bred on the same lines; choice individuals for sale. JOHN A. GOVENLOCK, Forest Sta. and P.O.

HEREFORDS

We are now offering a few thick, smooth young bulls and a number of females—a low-down, even, beefy lot. If in want of something extra good, correspond with us. We can please you. J. A. LOVERING, Coldwater P.O. and Sta.

Aberdeen-Angus bull for sale

Black Diamond, No. 836, 3 years old this spring. A good individual and extra stock getter; has never been beaten in show-ring. Price reasonable. Also one Chester White boar, old enough for service. A. G. SPAFFORD, Compton, Que.

Four Aberdeen-Angus Bulls

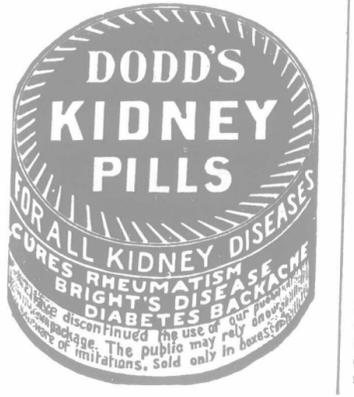
Two herd headers and two useful bulls to use on grade cows. Barred Rock eggs at \$4.00 per 100. AMES BOWMAN, Elm Park, Guelph, Ontario.

Alberta Lands For Sale

At Bawlf on the Wetaskiwin Branch. This includes some of Alberta's finest wheat lands. Terms easy. Write at once. Special Inducements to Large Parties. J. Bradley & Co., Bawlf, Alta.

A PATHETIC STORY.

Lady to Man at Bookstall—"I want an entertaining novel to read in the train; would like the style to be rather pathetic, too."
Book Vendor—"Will the 'Last Days of Pompeii' do?"
"Pompeii? I never heard of him. What did he die of?"
"I am not sure; I think it was some kind of an eruption."



QUESTIONS AND ANSWERS. Miscellaneous.

VALUE OF COIN.

What is value of a gold coin with the enclosed inscriptions or stamp?
W. G.
Ans.—This is the ordinary British Sovereign; value, \$4.86 2-3 in Canadian currency.

STANDARD-BRED REGISTRY.

Would you please give me some information as to where I should send to get my Standard-bred mare registered? What would it cost me?
J. D. L.
Ans.—Write W. H. Knight, Secretary American Trotting Register Co., Chicago, Ill., for forms and terms.

DELINQUENT PIG-DEALERS.

I shipped an imported sow to Bros. on the 10th of February last. I asked them to send money by check or post-office money order for sow, and they demanded the pedigree before paying. I sent them pedigree and transfer of pedigree, and still they will not pay, only putting it off, making out they are so busy. The sow will have pigs by this time. She was to farrow on the 19th of April. I sold the sow by correspondence. They wrote first, enquiring for sows. I sold them this one, and they paid the freight from to How should I proceed? Could I go and take the sow, or would I have to sue them? I am informed everything they have is chattel-mortgaged. I do not expect the sow will be. OLD SUBSCRIBER.

Ans.—You could not legally take the sow back without the purchasers' consent; but you are in a position to sue, and should do so without delay. Having obtained judgment (in the Division Court), you should have execution issued and placed in the bailiff's hands with special instructions to make levy on the debtors' unencumbered goods and chattels forthwith. In the event of the execution being returned: "no goods," it would be in order to have the debtors brought before the judge for examination upon judgment summons, and then, if not before, you would probably succeed in realizing the amount of your claim together with interest from the date of the judgment and court costs.

Another complaint was received by the same mail as the above against this same firm, stating that money was sent them for a pair of choice pigs, and after much delay, one scrubby pig was sent. These are only samples of complaints against this firm, which has repeatedly applied for advertising space in "The Farmer's Advocate" in the last year or two, and as often been refused on account of their business reputation.

Veterinary.

CHRONIC NASAL DISCHARGE.

Valuable mare, 11 years old, was always ready and willing to work. She had a foal a year ago. When I commenced to work her in the fall, she had lost life and ambition. About 5 months ago I noticed a slight noise when breathing, and a discharge from her nostrils. These symptoms have increased, especially the discharge, which is copious when drinking. She eats well, but her hair is dry and stiff. She is in foal again. H. M. D.

Ans.—The symptoms indicate either heaves or chronic catarrh. If the former, she cannot be cured, but the symptoms will become somewhat relieved when she gets on grass. Moistening her food with lime water will relieve the symptoms to some extent. If the trouble be chronic catarrh, treatment will be tedious, and possibly unsatisfactory. Give her, three times daily: One dram sulphate of copper, and 25 grains sulphate of quinine. Keep her comfortable. The trouble was probably caused by exposure to wet and cold, or if she has heaves to feeding too heartily on food of poor quality. As you value her highly, I think it would be advisable to consult a veterinarian, as it is hard to diagnose without very definite symptoms in cases where different diseases cause symptoms so similar, especially the rattling breathing and nasal discharge.

Tuttle's Elixir



Well nigh infallible cure for colic, curb, splint, spavin and other common horse ailments. Our long-time standing offer of

\$100 Reward

for failure, where we say it will cure, has never been claimed. All druggists sell it. Tuttle's Family Elixir, the great household remedy. Tuttle's American Worm Powder cures. American Condition Powders, White Star and Hoof Ointment 100 page book, "Veterinary Experience," free. Be your own horse doctor. Makes plain the symptoms gives treatment. Send for a copy.

TUTTLE'S ELIXIR CO.,
66 Beverly Street, Boston, Mass.
Canadian Branch, 22 St. Ursula St., Montreal, Quebec.

TUBULAR Starts Fortune

If you had a gold mine would you waste half the gold? Dairies are surer than gold mines, yet farmers without separators only half skim their milk. Tubular butter is worth 25 to 35 cents. Cream is worth one cent fed to stock. Are you wasting cream?

Sharples TUBULAR CREAM SEPARATORS

Like a Crowbar

Tubulars are regular crowbars—get right under the trouble. Get the cream—raise the quantity of butter—start a fortune for the owner. Write for catalog U-128 THE SHARPLES SEPARATOR CO. WEST CHESTER, PA. TORONTO, CAN. CHICAGO, ILL.

Here's Two Durham bulls, 2 years old, and a snap; one 18 months, two sired by a Royal Sailor bull that would weigh 2,300 lbs., and one by an imported sire. For quick sale \$75 each. Barred Rock eggs, 5 settings for \$2. An imported Shoemaker and several home-bred roosters used in flock. W. R. BOWMAN, Mt. Forest, Ontario.

SHORTHORNS and BERKSHIRES

Present offering: Several good young bulls, and a choice lot of young pigs. JOHN RACEY, JR., Lennoxville, Que.

SMITHFIELD FARM SHORTHORNS.

Herd headed by the Missie bull, Aberdeen Beau, by Imp. Scottish Beau. Present offering: One red 16 months' bull, good quality; also young Yorkshire pigs.

R. E. WHITE, BALDERSOON, ONTARIO SHORTHORNS

Young bulls for sale, sired by Spectator, imp. Prices reasonable. Apply to JOHN McCALLUM, Springbank Stock Farm, M. O. R. and P. M. R. Box 91 Iona Station.

WILLOW BANK STOCK FARM

Established 1855. Will offer imported Rosicrucian or Dalm. by =45240=. Recorded in both Dominion and American herdbooks. Also young stock of either sex. "Shorthorns." James Douglas, Caledonia, Ontario.

SHORTHORNS, LINCOLNS & OXFORD DOWNS

Herds headed by imp. Royal Prince and imp. Abbotsford Star. For sale: Nine bulls, six months to one year, three from imp. dams and imp. sires; also females. Oxford Down sheep and Barred Rock cockerels. John McFarlane & W. H. Ford, Duntun, Ont., Elgin County.

SHORTHORNS AND LEICESTERS.

4 extra choice young bulls ready for service 4 Also bull calves, all from imp. sires. Leicester ewes and lambs of both sexes for sale. Address W. A. DOUGLAS, Caledonia Station, Tuscarora P.O.

Scotch-bred Shorthorns

Four young bulls fit for service; also several cows and heifers in calf to Good Morning (imp.), now heading the herd, at let-live prices. L. K. WEBER, Hawksville P. O.

SHORTHORNS AND DORSETS

We are offering at living prices two 2-year-old and two 1-year-old heifers, a couple of young bulls and the stock bull, White Count 57871. The offering is a lot of good stuff and in good condition. Also a few Horned Dorsets. D. BARTLETT & SONS, Smithville P.O. and Sta.

MAPLE LEAF STOCK FARM

4 Choice Young Bulls for Sale. Also some cows and heifers, and prizewinning Berkshire pigs. Terms reasonable. ISRAEL GROFF, Alma P.O. & Sta., G.T.R.

Oak Grove Shorthorns

Present offering: Several imp. cows, heifers and young bulls, all sired by Imp. Nonpareil Duke and out of imp. dams; also the stock Prices right. W. J. ISAAC, Cobourg Station, Marwood P. O.

TWO YOUNG SHORTHORN BULLS

ready for service, both from heavy-milking strain. Price \$75.00 each. Write or call on F. A. COMERFORD, Eldorado, Ont.

The SUCCESS MANURE SPREADER



**OLDEST
NICEST WORKING
BEST WORK
LIGHTEST DRAFT
MOST DURABLE**

The "Success" has the largest rear axle and strongest drive-chain of any spreader made. It is the only machine with Beater freeing-device and many other points covered by strong patents. Our catalogue tells all about it and gives much valuable information for farmers. Write for it.

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THE PARIS PLOW CO., LTD.,
PARIS, ONT. WINNIPEG, MAN.

Eastern Agents: THE FROST & WOOD CO., LTD.,
Montreal, Quebec, St. John, Truro.

Scotch Shorthorns

AT HOLLYMOUNT STOCK FARM

Young bulls and heifers from imported sires and dams for sale at reasonable prices. For particulars, write to

W. J. THOMPSON, Mitchell, Ont.

Shorthorns, Cotswolds and Berkshires.

For sale: 4 yearling bulls, cows, heifers and young calves. Orders booked for Cotswolds and Berkshires.
CHAS. E. BONNYCASTLE,
P. O. and Stn. Campbellford, Ont.

Peartree SHORTHORNS AND SHROPSHIRE

Have sold all the sheep we can spare at present, but have a few Shorthorn heifers. No fancy prices asked for quick sales.

T. H. MEDCRAFT & SON, Sparta P. O.,
St. Thomas station. Long-distance telephone.



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

SHORTHORNS

Still have a few bulls, one roan and three reds, one red from Imp. Mary Ann 6th, got by Kinellar Stamp; also a few females for sale, all by Kinellar Stamp.

SOLOMON SHANTZ, Haysville, Ont.,
Plum Grove Stock Farm. Baden Station

ROWAN HILL SHORTHORNS

Herd bull for sale: Greengill Archer, imp. 45184, as some of his heifers are of breeding age, and herd is not large enough to keep more than one bull; also a few young bulls and heifers.

A. DUNCAN & SONS, Carluke, Ont.

J. Watt & Son SHORTHORNS

A number of extra good young cows for sale, three of them each raising a nice heifer calf; also a number of yearlings, just bred.

SALEM P. O., Elora Stations, G.T.R. and C.P.R.

MAPLE + GROVE + STOCK + FARM Scotch and SHORTHORNS Scotch-Topped SHORTHORNS

Present offering: Two choice nine-months-old bulls, by Captain Mayfly 2nd; also young cows and heifers at very reasonable prices. For particulars write to

L. B. POWELL,
Elmira Stn. and Tel. Wallenstein P. O.

Shorthorn Bulls—Imp. Scottish Peer = 40494 =, 4 years old, sure, and a good sire. Also 3 excellent young bulls of his get, and an 8-year-old Clyde stallion. Come and see, or address,

JAMES SNELL, Clinton, Ont.

Shorthorns Have several good ones for sale between 5 and 10 months old. Also a few heifers at very reasonable prices, bred to sons of Imp. Royal Sailor and imp. Wanderer's Last.
J. R. McCallum & Sons, Iona Stn., Ont.

SHORTHORN BULLS

FOR SALE

1 roan calf, 15 months old, of the Duchess of Gloster family.
1 roan, two years old, from imp. sire and dam. Also a number of good registered Clyde mares.

JOHN MILLER, Brougham, Ont.

Shorthorn Cattle and Lincoln Sheep

Shorthorn bulls, cows and heifers for sale at greatly reduced prices for the next 60 days.

J. T. GIBSON, Denfield, Ont.

Hillhurst Shorthorns

Registered bull calves for sale, by Broad Scotch = 46315 =, from imported English and home-bred dams of good milking strains.

JAS. A. COCHRANE, Compton, P. Q.

Queenston Heights SHORTHORNS

I am offering extra value in yearling and two-year-old heifers. Bull calves that will make high-class sires.
Straight Scotch.

HUDSON USHER, Queenston, Ont.

Shorthorns and Berkshires

For Sale: The two-year-old show bull, Proud Archer = 49812 =, from an imported sire and dam of good milking strain, and ten one young Berkshire sows, bred to our imported boar.

S. J. PEARSON, SON & CO.,
Meadowvale, Ontario

Stations: Streetsville and Meadowvale, C.P.R.

HIGH-CLASS SHORTHORNS.

The well-known Duthie-bred bull, Scottish Beau, imp. (36099), formerly at head of R. A. & J. A. Watt's herd, now heads my herd. Present offering: A few females of different ages. Also for sale, Clydesdale mare and yearling stallion colt; also choice Barred Plymouth Rock eggs for setting, \$1 per 15.

N. S. ROBERTSON, Arnprior, Ont.

CEDARDALE SHORTHORNS

For immediate sale: Four young bulls and a few heifers a nice thick, well-put-up lot and bred on heavy-milking lines. Will be sold cheap.

DR. T. S. SPROULE, M.P.,
Markdale, Ont.

Riverview Shorthorns and Oxfords

Shorthorns represent Crimson Flowers, Athelstanes, Lady James and Roses.

We have for sale three yearling bulls and some spring calves, also a few females. A thick, straight, mossy lot. Also some Oxford Down ram lambs.

Peter Cochran, Almonte P. O. and Station.

A. EDWARD MEYER, Box 378, Guelph, Ont.

Scotch Shorthorns.

The Sunny Slope herd comprises Crickshank Bellonas, Mysies, Villages, Brawith Buds, Broadbooks, Bruce Augustas, Mayflowers, Campbell Bessies, Urya, Minas, Claretts, Killbean Beautys, Herd bulls: Scottish Hero (imp.) (90065), a Shethin Rosemary, and Chief Ramsden = 62548 =, a Miss Ramsden. Correspondence solicited. Visitors welcome. Long-distance phone in house.

SCOTCH-TOPPED SHORTHORNS

Three young bulls, from nine to thirteen months old; also several young heifers by Scottish Baron (imp.) for sale. Prices reasonable.

H. GOLDING & SONS, Thamesford, Ont.
Stations, Thamesford, C.P.R., Ingersoll, G.T.R.

QUESTIONS AND ANSWERS. Miscellaneous.

BARRED ROCKS AND PLYMOUTH ROCKS.

Are Barred Rocks and Plymouth Rocks the same breed of fowl, or two different kinds? W. B.

Ans.—"Barred Rock" is an abbreviation of the full name, "Barred Plymouth Rock," which are one of several varieties of Plymouth Rocks.

CLYDE HORSE, BOUNDING TOM.

Can you, or any of your readers, give me any information about the imported Clydesdale stallion, Bounding Tom [4228] (12059), where he stood for service last season, 1905? SUB.

Ans.—This horse was imported in 1903, by J. B. Hogate, Weston, Ont., sire Sir Thomas (9681), dam Blossom, by Prince Romeo (8144). We have no information as to where he travelled last year.

TWINFLOWER.

Give description of twinberry bush, or cow-bag bush, and where it is most likely to be found. SUBSCRIBER.

Ans.—We do not find in Spotton's botany any reference to twinberry, but there is a plant called twinflower (*Linnaea borealis*). It is a trailing or creeping herb, with evergreen oval or crenate leaves, and slender, scape-like peduncles, which fork at the top into 2 pedicels, each of which bears a pair of nodding narrowly-bell-shaped purplish flowers. It has four stamens, three shorter than the others. It is found in cool, mossy woods and swamps.

COW'S MILK FOR COLT.

Young mare with a foal three weeks old has not enough milk for it, and we are giving it some cow's milk with some molasses in it. Would brown sugar be better for the foal than the molasses? How much milk should we give it, and how much molasses should we put in it? W. O. J.

Ans.—Brown sugar is usually recommended. We have never tried molasses. Mare's milk is poorer than cow's milk in protein and fat, but richer in sugar. When used for colts, the cow's milk should be mixed with one-third its bulk of water, and sugar added at the rate of a good-sized teaspoonful to the teacup of diluted milk. Give about a cupful at a time. The temperature of the milk when fed should be 98 to 100 degrees. The milk of a fresh cow should be used.

Veterinary.

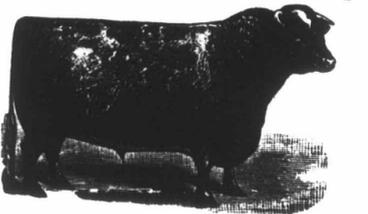
HEAVES.

Editor "The Farmer's Advocate":
Three years ago I had a horse that had every symptom of heaves. I went to a veterinary, and after I had given him the age and symptoms, he considered the case a hopeless one, but gave me some powders that would help him. I used the powders, but saw no difference in the horse. Every neighbor I met would say: "I see your old horse has the heaves." One, in particular, said: "Your horse is liable to drop over any time." I commenced to doctor him myself by putting a tablespoonful of ginger in a gallon and a half of dry oat chop, mixed well, then poured on boiling hot water until quite sloppy; covered it up for an hour, then fed. I gave this dose every night for a week, then every other night, together with comfortable surroundings, and when there was plenty of grass, turned him out. The horse is alive to-day after three years of faithful service, having no sign or symptom of heaves. Hoping this may help the questioner in your issue of May 3rd. SUCCESSFUL.

[Note.—We are indebted to our correspondent for contributing his experience, but think the veterinarian must have been mistaken in his diagnosis. If the horse did have heaves, we would be inclined to credit any remedial effect to the pasture and general care rather than to the ginger. Ginger is a stomachic and tonic, but is not employed as a specific for heaves. Had it a value for that purpose, this would, in all probability, have been discovered long ago.—Editor.]

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use **Fleming's Spavin and Ringbone Paste**. Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 5-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of **Fleming's Vest-Pocket Veterinary Adviser**.
Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.
FLEMING BROS., Chemists,
45 Church Street, Toronto, Ontario



ARTHUR JOHNSTON Greenwood, Ont.

Offers for sale, at moderate prices,

12 high-class yearling BULLS

All sired by imported bulls, and most of them from imported dams. Also imported and home-bred cows and heifers of all ages.

MAPLE GROVE SHORTHORNS

Imp. and Canadian-bred. Males and females, as good types as the breed produces. With breeding unsurpassed.

C. D. Wager,
Enterprise Stn. & P.O., Addington Co.

GREENGILL HERD of high-class SHORTHORNS

We offer ten young bulls ready for service, a number of them from imported sire and dam; also high-class females, all ages, either imported or Canadian-bred. The herd is headed by (Imp.) Lord Resberry.

R. MITCHELL & SONS,
Nelson P.O., Ont.; Burlington Junc. Sta.

GLENAYOY STOCK FARM Shorthorns and Berkshires

I have 5 Berkshire boars ready to wean, will sell them at \$6, delivered to any station in Ontario; and a Shorthorn bull calf, which I will sell cheap.

W. B. ROBERTS, Sparta P. O.

Station: St. Thomas, C.P.R., M.C.R., G.T.R.

R. A. & J. A. Watt, Salem, Ont.
Elora Station on the G. T. and C. P. Ry. Home of the first and third prize aged herds, Canadian National, Toronto, 1905. Mayflower grand champion Toronto and Winnipeg, 1904-05; Olga Stamford, grand champion New York State Fair, 1905; Gem of Hallechin, grand champion Toronto, 1903; Tiny Maude, reserve senior champion Toronto and Winnipeg, 1905; Mildred's Royal and other leading winners. A choice number on hand to make your selection from at all times.

KENWOOD STOCK FARM. SHORTHORNS.

Headed by (Imp.) Jilt Victor = 45187 =, 10 grand young bulls; also heifers; from imp. and home-bred cows, for sale. Choice Lincoln sheep; Berkshire and Tamworth hogs offered.

HAINING BROS., Highgate, Ont. Kent Co.

Maple Lodge Stock Farm

I am offering an excellent dark roan imported bull, nearly three years old, for sale. Also one yearling bull, and a few choice heifers of milking strains.

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

HARMONICA

The Brass Band Harmonica

is one of the finest instruments made in the world to-day. Extra full tone, and beautifully finished. Packed in an elegant folding pocket case.

The Mariner's Compass

is two inches in diameter, nickel plated, ring attachment for chain, and in general appearance resembles a watch. A very useful article, for when you want it you want it badly.

A Three-inch Reading Glass with a powerful lens, nickel mounted, and handsomely finished. Very useful in every home.

Fill out the following blank and return to us with \$1.50, and name your choice of Premiums:

LISTEN!

While they last we will give you your choice of any TWO of these premiums for sending us ONE new subscriber to The Farmer's Advocate and Home Magazine (not your own name) at \$1.50 per year. ONE of these magnificent premiums would amply repay you for your trouble in securing a new name, but we are actually offering you your

COMPASS

Choice of Any Two.

The supply is limited, so if you want to be sure of getting your choice you must hurry. "A word to the wise is sufficient."

READING GLASS

CUT OUT AND RETURN TO US.

New Subscriber.....Date.....
P. O.....Prov.....Am't.....
Sent by.....P. O.....
Premiums desired.....

PURE SCOTCH SHORTHORNS

Herd bulls: Imp. Prime Favorite =45214-, a Marr Princess Royal.
Imp. Scottish Pride =36106-, a Marr Roan Lady.
Present offering
2 imported bulls.
15 young bulls.
10 imported cows with heifer calves at foot and bred again.
20 one- and two-year-old heifers.
Visitors welcome. New catalogue just issued.

W. G. PETTIT & SONS, Freeman, Ont.
Burlington Jct. Sta. Long-distance telephone in residence.

JOHN GARDHOUSE & SONS, Highfield P.O., Ont.
Breeder of Scotch and Scotch-topped Shorthorns, Lincoln and Leicester Sheep and Shire Horses.

PLEASANT VALLEY SHORTHORNS

Herd headed by imp. Old Lancaster =50068-. Grand champion, Toronto, 1905, and consisting of females of the leading Scotch families; can spare a few young cows bred to imp. Old Lancaster.

GEO. AMOS & SON, Moffat Stn. and P.O., C.P.R.

Pine Grove Stock Farm.

Breeders of High-class Scotch Shorthorns, Choice Shropshire Sheep, Clydesdale and Hackney Horses.

Herd catalogue on application. Address: JAMES SMITH, Supt., Rockland, Ont. W. C. EDWARDS & Co., Limited Props. own

For Sale: Shorthorns—One young bull, 14 months old; cows and heifers, all ages. Shropshires, all ages and both sexes. BELL BROS., "The Cedars" Stock Farm, Bradford, Ont.

Sunnyside Stock Farm—8 superior young Shorthorn bulls for sale. All from imp. bulls, four from imp. cows. Good enough to place at head of any herd. Apply JAMES GIBB, Brookdale P.O. and Telephone.

I Have Imported

more prizewinning and high-class breeding sheep in the past twenty years than all other importers combined.

I WILL IMPORT anything you may need this year in cattle or sheep. Will leave for England on the 18th May. My address there will be: Care of Alfred Mansell & Co., Shrewsbury, Eng.

Robt. Miller, Stouffville, Ont.

SHORTHORNS AND LINCOLNS.

Present offerings: 4 choice young bulls 9 to 14 months; also a few good heifers, Lincolns, descended from the best English stocks. JOHN LEE & SONS, Highgate, Ont. 40 miles west St. Thomas, on M.C.R.R. & P.M. Ry.

SHORTHORNS

Imp. Keith Baron 36050. Six young bulls from 10 to 18 months old. A lot of 2-year-old heifers in calf and a few young cows. A bunch of heifer calves, cheap.

CLYDESDALES

Just now: One pair of matched geldings 5 and 6 years old; show team. JAS. McARTHUR, Goble's, Ont.

Brown Lee Shorthorns—Present offering is 3 young bulls from 9 to 15 months old, a nice straight, good-doing lot, sired by Blenheim Stamp; also females of all ages, daughters of Imp. Sir Christopher and Imp. Beaucaup. Prices very reasonable. DOUGLAS BROWN, Avy P.O. and Station.

SPRING VALLEY SHORTHORNS Herd headed by Imp. Bapton Chancellor =40359- (78286). A choice lot of females, mostly with calves at foot or safe in calf. Also a good six-month-old bull calf. Inspection and correspondence invited. KYLE BROS., Avy P.O. Avy, C.P.R.; Paris, G.T.R.

Glen Gow Shorthorns—Our present offering is 9 bulls, from 6 to 14 months of age, sired by Imp. Ben Loman and Imp. Joy of Morning, and out of imp. and Canadian bred cows. Also a number of very choice heifers. No fancy prices asked. Long distance telephone. WM. SMITH, Columbus, P.O. Brooklin and Myrtle Sts.

GOSSIP.

Messrs. A. Kennedy & Son, of Hillview Stock Farm, Vernon, Ontario, write as follows: "We have sold all of the Ayrshire cattle we had for sale, and could have sold twenty-five head more. The demand this year has been better than ever. We have had inquiries from all parts of Ontario, and four other provinces of Canada, and from three different States. Among the recent sales made by us are the following: One cow and heifer to T. W. Crowley, Pottsdam; one bull calf to Joseph Bradley, Onemwee, N. Y.; one yearling bull to Walter Carlyle, Chesterville, Ont.; 1 two-year-old bull to Peter McIntosh, Cass Bridge, Ont.; one bull calf to Jos. C. Shaver, Moorewood, Ont.; three one-year-old heifers to Richard Gibbons, Irena, Ont.; two heifer calves to David Campbell, Avonmore, Ont. Our cows are doing unusually well from the standpoint of milk production. We have several young heifers and cows from the same sire as Maude of Hillview, bred by us, and shown by Mr. J. G. Clark, that won first in the dairy test at the Winter Fair in Ottawa. We will have a large number of young calves for sale during the fall and early winter months. It is certainly very gratifying to us to learn that your paper is such a good advertising medium."

HORSE VALUES INCREASING.

The horse is always about to be, but never is, put out of business. On the appearance of every new agency of transportation, the announcement is solemnly made that the horse, after passing through an area of decreasing prices, will cease. It was so when railroads began to gain headway, when bicycles came into use, when the electric cars commenced to buzz along the highways, when the auto developed into something more than a curiosity, but yet here the horse is still with us, and more valuable than ever. Statistics submitted to the House of Representatives, in connection with the agricultural appropriation bill, show that there has been a notable increase both in the number and value of horses in the United States in the last nine years. The aggregate of horses, January 1st, 1906, stood at 18,718,578, against 14,367,667 at the corresponding date of 1897. Their total value increased in the same time from \$452,649,396 to \$1,510,889,906. This startling rate of increase in value is no more marked than that of mules, according to the same Government authorities.—[Live-stock World.

CLYDESDALES FOR QUEBEC.

Mr. R. R. Ness, Howick, Quebec, sailed by the Athena a week ago with a valuable shipment of Ayrshire cattle and four Clydesdale stallions and 13 fillies, the latter bought from Messrs. A. & W. Montgomery, Netherhall and Banks. The Ayrshires were mainly bought from Mr. Andrew Mitchell, Barcheskie. Amongst the Clydesdales is a big three-year-old horse, by Sylvander, which won first prize at Perth last year. Another of the stallions is a three-year-old of good size, and thick, just made for the Canadian market. There is a very good three-year-old horse, bred by Mr. Stodart, Adinston, and got by Gay Everard, a solid, thick Canadian sort. A two-year-old colt, by the noted Royal Edward, one of the best breeding horses, by Baron's Pride, was bred by Mr. A. MacG. Mennie, Brawland Knowes, Gartly. His dam was a very good mare, by the H. and A. S. champion horse, Prince Thomas. There is a yearling, by the famous premium horse, Baron Mitchell, whose stock made their mark in various districts. The fillies were chiefly of Baron's Pride, Sir Everard breeding. There are several by Argosy, the Stirling premium horse; the famous Pride of Blacon, premium horse for Bute for three seasons, and twice first at the Highland shows; Mr. Park's celebrated horse, Marmion, sire of the Cawdor Cup winner of 1905; and the popular Lanark premium horse, Acme.

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 some 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.

BELMAR PARO SHORTHORNS

10 bull calves. 16 heifers under two years. All of the choicest breeding and practically all of show-yard quality. You can buy anything in the herd at a reasonable figure. JOHN DOUGLAS, PETER WHITE, JR., Manager, Pambroke, Ont.

SHORTHORN BULLS and HEIFERS

Sired by the Scotch bull, Scottish Lad 45063 FOR SALE. S. DYMENT, Barrie, Ontario.

Clover Lea Stock Farm SHORTHORNS

FOR SALE: Choice bull calves by Golden Cross (imp.). All dark roans. Some from imported sire and dam. Visitors met at Ripley station.

R. H. REID, PINE RIVER, ONT. Ripley Station, G. T. R.

GEO. D. FLETCHER, Breeder of Scotch Shorthorn Cattle, Yorkshire Pigs,

and S.-C. White Leghorn fowl. Herd headed by the Duthie-bred bull (imp.) Joy of Morning =32070-, winner of first prize at Dominion Exhibition, Toronto, 1903. Young stock for sale. Eggs for hatching 75c. per setting. Binkham P.O., Ont. Erin Station and Telegraph

BARREN COW CURE makes animals breed. Abortive Cow Cure prevents animals aborting. Cures guaranteed or money refunded. L. F. SELLECK, Morrisburg, Ont.

Porter's Gold and Silver Fawn ST. LAMBERT JERSEY HERD

I am still breeding and selling these St. Lambert beauties, and still have some of both sexes for sale. No better blood. No better cream and butter producers, and no better lookers. T. PORTER, Carleton West, Ont. Toronto (Dundas St.) cars come out within half a mile of the farm.

DON JERSEYS

Don Jerseys rank second to none in Canada. Present offering is 3 year-old bulls, bred from prizewinners and producers, and are a grand lot; as herd headers they have few equals. A few females could be spared. D. DUNCAN, Don P.O. Close to Toronto.

HIGHGROVE JERSEY HERD.

Our present offering is: a few choice heifer calves from 2 to 8 months old, which, considering quality, will be sold reasonable. ROBT. TUFTS & SON, Tweed P.O. & Sta.

Brampton Jersey Herd—We have now for immediate sale 10 bulls, from 6 to 18 months old, descended from St. Lambert or imported stock; also females of all ages. In order to reduce our stock, we are making a special offer. For full particulars, address B. H. BULL & SON, Brampton, Ont. Phone 66.

An extra nice Jersey Bull, fit for ser- yearling vice. Also two bull calves. Prices reasonable. F. S. WETHERALL, - Rushton Farm Cookshire, Que.

The Healthy Steer the Money Steer

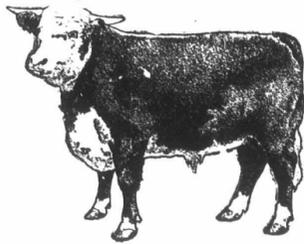
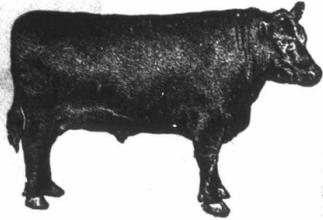
Insure Animal Health Through

ZENOLEUM

Disinfectant, Lice Killer, Germicide.

It makes Healthy Quarters, Avoids Contamination, Kills all Lice and Insects, Relieves from Stomach and Intestinal Worms.

Zenoleum is Used and Endorsed by 43 Agricultural Colleges.



F. A. Nave, Hereford Cattle, Attica, Ind.

"It is with pleasure that we recommend ZENOLEUM to anyone for disinfecting, or to kill lice or mange on any kind of stock. We use it in our cattle barns and hog houses to purify them, with great success.

Frank W. Harding, Short Horn Cattle, Waukesha, Wis.

"We have used ZENOLEUM exclusively the past two years, and find it very satisfactory sheep-dip and cattle and hog wash, killing all ticks and lice and leaving the fleece or hair as the case may be, in a satisfactory condition. I take pleasure in recommending ZENOLEUM.

C. H. Gardner, Angus Cattle, Blandinsville, Ill.

"I have used a number of different kinds of disinfectants, but find ZENOLEUM far ahead of anything I have ever used. It is a fine thing to wash cattle, hogs and horses, and leaves the hair in splendid condition, soft and a nice gloss. It aids in the bloom of the stock, and for lice and humor in skin, it has no equal."

M. H. Cochran, Shorthorn Cattle, Hillshurst, Quebec.

"I have used ZENOLEUM as a cattle wash, sheep dip and for the prevention of calf cholera, according to directions and have found it very satisfactory."

These are sample words from a few of the thousands of rank and file people who use Zenoleum. They use it because scientific men and the Experiment Stations have taught them its value.

Prices, Freight Prepaid: One Gallon, only \$1.50. Two Gallons, only \$3.00. Five Gallons, only \$6.25.

Send for "Zenoleum Veterinary Adviser" and "Chicken Chat" Free, Sure Guides to Animal and Poultry Health.

Zenner Disinfectant Co., 113 Lafayette Ave., Detroit, Mich.

ALBERTA FARMS CHEAP

Do You Want One? WE SELL THEM.

Samis & Bush, Calgary.

Write to-day.

BOYS FOR FARM HELP

The managers of Dr. Barnardo's Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 11 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English Institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 214 Farley Ave., Toronto.

SPRINGBROOK HOLSTEINS & TAMWORTHS

Two rich-bred bulls, ready for service, from Official Record cows; also a few choice females. One Tamworth boar ready for service. Some nice spring pigs just weaned, both sexes. All high-class stock. Come and make your own choice.

A. C. Hallman, Breslau, Ont.

Lyndale Holsteins.

For Sale A number of bull calves from one to four months old, out of Record of Merit cows, and sired by Beryl Wayne Paul Concordia, whose four nearest dams have official butter records averaging 23 lbs. 11 ozs. each. BROWN BROS., LYN, ONT.

Centre and Hill View Holsteins

We have four yearling bulls left which we will sell at reduced price to quick buyers; from good producing strain; our own raising. Sold out of females at present P. D. EDE, Oxford Centre P. O., Woodstock Station, C. P. R. and G. T. R.

WOODBINE HOLSTEINS

Our Holsteins are producers and prizewinners. Young bulls and a few choice heifers for sale, also some extra good young Chester White pigs, both sexes. D. G. GOODERHAM, Thornhill P. O. G. T. R. and street cars

MAPLE GROVE HOLSTEIN-FRIESIANS

For Sale: Three bull calves, sired by Lord Wayne Mechtildie Calamity, and all out of Advanced Registry cows. Apply

WALBURN RIVERS, Folders' Corners.

Grove Hill Holsteins—Herd contains 55 head in the advanced registry. Our stock bulls have all been backed up by high records. Present offering: Several young bulls and a few females. F. R. MALLORY, Frankford P. O. and Sta., C. O. R.

"GLENARCHY" HOLSTEINS

We have for immediate sale several young bulls and a number of young females, that for ideal type and superior quality, backed up by gilt-edged breeding, are unsurpassed.

G. MACINTYRE, Renfrew P.O. and Stp.

IMPERIAL STOCK FARM HOLSTEINS

A prizewinning herd of imported, officially tested stock. Bulls of all ages for sale, also a few cows. W. H. SIMMONS, New Durham, Ontario.

QUEEN CITY HOLSTEINS

If you would like to purchase a young Holstein bull whose sire's dam has an official record of 550 pounds of milk and 26 pounds of butter in seven days, write to R. F. HICKS, Newton Brook P.O., York Co.

Holsteins at Ridgedale—A few choice bull and

heifer calves on hand for sale, sired by Prince Pauline DeKof 6th. Ates up to ten months. Write for what you want, or come and see them. Shipping stations: Port Perry, G. T. R., and Myrtle, C. P. R., Ontario Co. R. W. WALKER, Utica P.O., Ont.

HOLSTEINS FOR SALE



Four imported and one home-bred bulls, from 8 to 12 months old; also our entire crop of spring bull calves from week old up.

sired by the grandly-bred imp. bull, Sir Howitje B. Pietertje, whose dam record is over 82 lbs. milk in one day, and from great producing cows of the most fashionable strains. Can spare a few cows and heifers, from one year up; 75 head to select from. Cheese 13c. Don't delay if you want one from this herd.

H. E. GEORGE, Grafton, Ont.

ANNANDALE HOLSTEIN HERD

Cows from the

Have won during the past show season at Ottawa first and sweepstakes on cow, first on 3-year-old, first on 2-year-old class. At Guelph (dairy test) first and sweepstakes on cow, first and second in heifers. At Chicago (National) first and sweepstakes on cow, also second-prize cow, second and third on 2-year-olds, second on 1-year-old heifers, and a host of other prizes (different cows at different shows)

Bull calves, 4 months and under only, for sale from great dams and greatest of sires. Buy young if you want them from Annandale Stock Farm.

GEO. RICE, Tillsonburg, Ont.

WOODBINE HOLSTEINS

Herd headed by Sir Mechtildie Posch, absolutely the best official-backed sire in Canada. Dam Ianthe Jewel Mechtildie, 25.8 pounds butter in seven days. Champion cow of Canada over all breeds. Sire's dam, Aaltje Posch 4th, holds the world's largest two-day public test record—8.6 pounds butter. Young bulls of the choicest quality for sale.

A. KENNEDY, Apr, Ont.

Ayr, C.P.R.; Paris, G.T.R.

A FEW HOLSTEIN BULLS

fit for service, for sale at reasonable prices. Choice females, all ages. If you are willing to pay good prices for good stuff, write me.

G. W. CLEMONS, St. George, Ont.

Maple Glen Holsteins—Three sons of Sir

Altra Posch Beets, whose granddam holds world's largest official record for her age, and grand-sire has over 60 tested A. R. O. daughters, the most by any bull on record. Brother of Auggie Cornucopia. Secure the best. C. J. GILROY & SON, Glen Buell, Ont.

SHANNON BANK STOCK FARM

FOR AYRSHIRES AND YORKSHIRES

Young stock of both sexes for sale from imported stock.

W. H. TRAN, Cedar Grove, Ont.

SPRINGBROOK AYRSHIRES.

Gave over 7,000 lbs. of milk, testing 3.9 per cent. butter-fat, during 1905. For sale: One bull 4 years old, Comrade's Fancy of Glenora 15790; bull calves of this year; also females of all ages.

W. F. STEPHEN, Huntingdon, Que.

AYRSHIRES FROM A PRIZEWINNING HERD

Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to WM. STEWART & SON, Campbellford Stn. o Menie P.O., Ont.

AYRSHIRES

The famous Reford Herd at St. Anne de Bellevue, Que., now owned by Sir William C. Macdonald.

Several yearling bulls for sale; also a number of bull calves. Quality and appearance extra good, bred from the best milking strains, noted for robust constitution and large teats.

For particulars apply to

MACDONALD COLLEGE

St. Anne de Bellevue, Quebec.

AYRSHIRES and YORKSHIRES

An August, 1904, bull of a choice dairy strain. A March, 1905, bull calf, very stylish, a winner. Several young calves of good breeding; cheap to quick buyers.

Some real good 2-year-old heifers in calf. Orders booked for young pigs.

Correspondence solicited.

ALEX. HUME & CO., Menie P. O., Ont.

Hillview Herd of Prizewinning

AYRSHIRE CATTLE.

All animals bred and carefully selected for size, constitution, long teats and deep-milking qualities. Select animals of both sexes for sale at reasonable prices. For further information and prices write

A. KENNEDY & SON, Hillview Stock Farm, Vernon, Ont.

Winchester Station, C. P. R.

Maple Cliff Dairy and Stock Farm

Breeders of Clydesdale Horses, Ayrshire Cattle, Berkshire and Tamworth Pigs. Young stock for sale at all times.

R. REID & CO., Hintonburg, Ont.

Farm adjoins Central Experimental Farm.

AYRSHIRES—Choice stock of either sex, different

ages, for sale. Prices reasonable. For particulars apply to

N. DYMENT, Hickory Hill Stock Farm, Dundas Stn. & Tel. o Clappison, Ont.

COOPER DIP



250 Million Sheep Dipped in it Every Year.

Has no equal. One dipping kills ticks, lice and mites. Increases quantity and quality of wool. Improves appearance and condition of flock. If dealer can't supply, send \$1.75 for \$2 (100 Gal.) Pkt. to Evans & Sons, Ltd., Montreal & Toronto.

Leicester Sheep—Choice ram and ewe lambs;

For particulars write to CHAS. F. MAW, Milton Stn and Tel. o Omagh P.O.

SHROPSHIRE

Shearling ewes and rams for sale.

GEO. HINDMARSH, Allsa Craig, Ont.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs.

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

QUESTIONS AND ANSWERS Veterinary.

THOROUGHPIN.

Have Hackney colt, rising one year old, which had one hock swollen some time ago. The swelling has all disappeared, except small puff, similar to thoroughpin. Colt is not lame. SUBSCRIBER.

Ans.—Apply Churchill's tincture of iodine with a stiff brush, once daily, until it blisters. Apply again in two weeks. R.

HEAVES.

Mare, 10 years old, seems to be taking the heaves. Is there any method of prevention and cure, when, as in this case, first noticed? J. P. R.

Ans.—Heaves, when thoroughly established, are looked upon as incurable, but with proper care the symptoms can be so much relieved that they are scarcely noticeable. Feed only the very best quality of food; shake dust from hay, and sprinkle with lime water; wet oats with lime water; water before feeding, allowing only an ordinary pailful at a time; keep stable well ventilated, and give an ounce of Fowler's solution of arsenic twice daily. One to three ounces of raw linseed oil daily is also advised. R.

NASAL GLEET—TUBERCULIN TEST.

I saw a question and answer re nasal gleet in your issue of April 26th, but it was not sufficiently complete to suit me, so I ask some questions:

1. Is nasal gleet contagious?
2. What are the symptoms?
3. I have a mare that coughs while at work, but little when idle. A few days ago, when coughing, there was a discharge of a whitish secretion, with three little red spots in it, from her nostril.

4. I also saw something about tuberculosis, but the answer was not satisfactory. Cannot a farmer test his own cattle, and how is it done? F. R. T. Que.

Ans.—1. No.

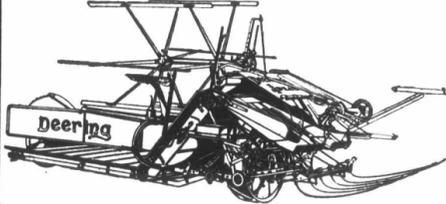
2. An irregular discharge from one or both nostrils; some days the discharge will be slight or absent, some days copious. There may or may not be a cough. In rare cases, the discharge contains blood. There is usually general unthriftiness. In some cases there is a bulging of the bones of the face, and in some cases the nasal discharge has a foul odor.

3. I am inclined to the opinion that your mare has chronic disease of the lungs, but it may be nasal gleet, which, of course, is a chronic disease. In either case, the red spots you mention were blood which escaped from a small vessel in the nostrils which ruptured during coughing. On the other hand, your mare may be suffering from glanders. There are so many conditions that cause a nasal discharge, it is not possible for a man to say with certainty what condition exists without a personal examination of the patient. If your mare has nasal gleet, the treatment recommended in the issue you name will probably effect a cure, unless an operation is necessary.

4. If a farmer has the necessary instruments, the tuberculin, and the necessary skill in handling the instrument, and the necessary knowledge, he certainly can test his own cattle. The operator must satisfy himself that the cattle to be tested are not suffering from any disease or abnormal condition other than tuberculosis, which might cause an increase of temperature during the test. The temperature of the cattle should be taken 6 hours and 3 hours before and immediately before injection, and, of course a record kept. The instruments and seat of injection (usually the loose skin behind the shoulder blade) are disinfected with a five-percent solution of creolin. With a hypodermic syringe, about 70 drops of a ten-percent solution of tuberculin in a one-percent solution of carbolic acid is injected under the skin. The cattle are cared for the same as usual. In about 9 hours after injection, the temperatures are again taken, and then every 2 or 3 hours, until 24 hours have elapsed since injection. If an animal's temperature increases 2 degrees or over above the highest point before injection, she is tubercular. Over one and less than two degrees is suspicious. Under one degree indicates soundness. V.

It Pays to Buy a Deering

Gets All the Grain



Increases Crop Returns

YOU realize this when you come to figure up crop returns.

Preparing a good seed bed, sowing good grain, and propitious weather are not all that is necessary.

You must have a machine that will harvest your grain so that you will realize every dollar possible out of the crop.

A Deering binder does this.

It's built to get all the grain. The reel will bring tall or short, down and tangled grain to the sickle without fail; the elevators will handle it whether it be light or heavy, and the binding attachment will throw out nice even butted bundles.

When a field of grain is harvested with a Deering, you won't find crow's feet scattered all about; you won't find the grain lying in patches where the reel never picked it up.

The Deering is built to harvest the crop in the right way.

The Deering wide cut binder is particularly adaptable for use where there are large fields of grain to harvest.

During harvest, time is worth money.

The loss of a day's cutting may mean the loss of many dollars, and no farmer can afford to take a chance on purchasing a poor binder.

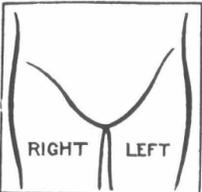
The Deering line of harvesting machines is complete and includes, besides grain and corn harvesting machines, a complete line of haying machines, comprising mowers, tedders, sweep rakes and hay stackers.

Call on the Deering agent and let him explain why a Deering machine harvests in the right way. These local agents are found everywhere, and will be pleased to give information and a catalog concerning the Deering machines.

CANADA BRANCHES: Calgary, London, Montreal, Toronto, Ottawa, Regina, St. John, Winnipeg. INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, ILL. (INCORPORATED.)

THE NEW QUICK WAY TO CURE RUPTURE

Is Without Operation, No Pain, No Danger, No Loss of time From Daily Work.



This Remarkable Simple NEW WAY TO CURE RUPTURE has opened up a new era in the treating of this terrible dangerous, dreaded, hitherto considered incurable malady, Rupture. You ruptured people who have borne the painful agonies of Rupture surely will be glad to see this notice, for it means a NEW lease of life for you—one free from pain and suffering. Won't it be grand to be cured? You can be sure—hundreds of Canadians have been. Cut out this notice. Mark on the diagram position of Rupture. Answer questions and send all to me at once. I will send you Free A FREE TEST to show you how quickly you can be cured right in your own home. I'll also send you a valuable Book of Information for the Ruptured. You must write for these at once. Remember they are FREE. No ruptured person who has had these would part with them for money. You wouldn't either. Write at once.

DR. W. S. RICE, 2 1/2 East Queen St., Block 279 Toronto, Ont.

Do you wear a truss? Does rupture pain?
On which side ruptured? Ever operated on for rupture?
Age..... Time ruptured.....
Name..... Address.....

Wool, Hides CALFSKINS, ETC.

If you have anything to offer, write for our prices; it will pay you.

E. T. CARTER & CO., TORONTO.

FAIRVIEW SHROPSHIRE

Have the world's record for the largest per head winnings at the greatest of world's fairs—St. Louis.

Also have the record for their 22 years in the leading show rings including three world's fairs, of winning more first and champion prizes than all competitors combined.

Do you need a few real good ewes? Or a choice ram to head your flock? If so, write for circular and quotations to

JOHN CAMPBELL, Fairview Farm, Woodville, Ont.

Lincolns are Booming

We have only a few more ewe and ram lambs and breeding ewes for sale. We have seven choice young bulls, Scotch-topped, and a grand lot of heifers and young cows for sale at reasonable prices. Write or come and see us.

F. H. NEIL & SONS, LUCAN, ONT.

Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live-stock organization in the world. Hon. John Dryden, President, Toronto, Can. Address correspondence to MORTIMER LEVERING, Secretary, Lafayette, Indiana.



Sheep and Cattle Labels. If you are putting stock out this spring you will need them. Sample and circular free. F. G. JAMES, Bowmanville, Ont.

Shropshire & Cotswold Sheep

SCOTCH SHORTHORNS and CLYDESDALES



Choice ram and ewe lambs. Also 50 shearing ewes for sale. Apply to

JOHN BRIGHT,

Myrtle Station, Ontario. BROAD LEA OXFORDS.

Present offerings are 28 ranch shearing rams, seven shearing ewes, one show ewe four years old. Will also book orders for ewe and ram lambs from imported rams. Correspondence promptly answered. Visitors always welcome.

R. R. Stations: Mildmay, G. T. R. Teeswater, C.P.R. W. H. ARKELL, Teeswater, Ont. DORSET HORN SHEEP and SCOTCH SHORTHORNS

The latter representing the Nonpareil, Miss Ramsden, Missie and Gloster families exclusively, and the former comprising more Royal winners and more St. Louis prizewinners than any other flock in the world. Stock for sale always on hand.

JOHN A. McGILLIVRAY, Ontario North Toronto. COTSWOLD SHEEP

From one of the largest breeders in the name of the breed. We have bred the prizewinners at the leading English shows. Address:

W. HOULTON, Broadfield Farm, Northleach, Glos., ENGLAND; or S. HOULTON, Calgary, ALBERTA, Canadian representative.

QUESTIONS AND ANSWERS. Miscellaneous.

DOCKING CLYDE FILLIES.

Would you advise having Clyde fillies docked? SUB.

Ans.—No. It is cruel, and can add nothing to the price of any but a fancy driving horse.

BUILDING ON GRAVEYARD SITE.

Having purchased a piece of land with a small graveyard on it, would like to build where the graveyard is, and as the relatives of the deceased have no deed of the plot, or any right of way to get to it, I offered to move the remains to a regular cemetery, as to which some are agreeable and some are not. There have been no burials in it for over fifty years, and the willing parties to having them removed are deceased's son and granddaughter, and the only objecting one is a grandson, by another brother, who is dead but not buried in this plot. Can he stop me from moving them? E. H. Ontario.

Ans.—Under the circumstances stated, we do not see that he is in a position to do so.

FOWL TRESPASS.

My neighbors' fowls are damaging a field of grain belonging to me. I asked them if they would kindly keep them out, and they did for a few days, but now they are on it pretty much all day.

- 1. Can I shoot them?
- 2. Kindly give your advice?

OLD SUBSCRIBER.

Ans.—1. No. 2. You may have the fowls impounded; or, in the alternative, you may notify their owner in writing of their trespass, and if, after being served with such notice, he refuses or neglects to prevent the fowls from further trespassing on your premises, you may have him brought before a justice of the peace and fined.

WHITEWASHING APPLE TREES.

Some people whitewash their young apple trees in the spring. Is this advisable? Is there any danger of making the lime wash too strong? Will it help destroy bark-louse? W. G. B.

Ans.—Whitewashing apple trees is a good practice for one who does not spray. It is a partially-effective measure against the bark-louse and other insects, and has some effect in ridding the trees of fungi. Spraying peach trees with lime wash is sometimes practiced as a means of retarding bud development in spring, and thus protecting the buds from late frosts. As a rule, this is not considered necessary for apple trees in most sections of the Province. Whitewash will not injure the trees in any way, and there is no danger of making it too strong.

FLEAS.

This is my first year on a farm. I am told that in the summer-time, the farm-yard is almost a nest of fleas, and that these, carried hence, infest the house in a way that must be quite incompatible with comfortable living. I am told that fleas are a natural and unavoidable consequence of farm life, and that one living on a farm must simply bear it with the best grace they can muster. Is this a fact? Is this pest an unavoidable appanage to farm life? I must confess to incredulity, for I should think this would be sufficient to make farming a much-tabooed industry. What is the cause of this farm-yard nuisance? Can you suggest a remedy for this deplorable state of affairs?

A PROSPECTIVE SUFFERER.

Ans.—It cannot be denied that fleas are a nuisance in some farmhouses, but the state of affairs is not so deplorable as "A Prospective Sufferer's" fertile imagination depicts. Fleas on animals may be combated by dusting with pyrethrum (insect powder), which closes their breathing pores. Bunches of fresh pennyroyal scattered about are said to be a flea-repellant. Our own observation connects them only with a dry season and piles of sand about the premises. What say our readers?

MAKES MEN SOUND AND STRONG YOU PAY WHEN CURED

A Detroit Specialist who has 14 Certificates and Diplomas from Medical Colleges and State Boards of Medical Examiners. So that there may be no doubt



DR. S. GOLDBERG, The Possessor of 14 Diplomas and Certificates, Who Wants No Money That He Does Not Earn.

In the mind of any man that he has the ability to do as he says. Dr. Goldberg allows his patients to take his treatment and pay for the same after they are satisfied that they are cured. He wishes to hear from men who have been unable to get cured, and who have prostatic trouble, blood poison, etc. He not only cures the condition itself, but likewise all the complications, such as rheumatism, bladder or kidney trouble, heart palpitation, nervous debility, etc. The doctor realizes that it is one thing to make claims and another thing to back them up, so he has made it a rule not to ask for money until you are cured, and when you are cured he feels sure that you will willingly pay him his small fee. It would seem, therefore, that it is to the best interests of every man who suffers in this way to write the doctor confidentially and lay his case before him, because if he accepts your case for treatment it is equivalent to a cure, as he does not unduly consider any incurable cases for treatment. He sends his booklet containing the 14 diplomas and certificates, entirely free. Write him in confidence and your case will receive immediate attention. Medicines for Canadian patients sent from Windsor, Ont., duty and transportation charges prepaid. Address, DR. GOLDBERG, 208 Woodward Ave., Suite 635 - Detroit, Mich., U. S. A.

SOUTH DOWNS

Having sold sport, I am now booking orders for future delivery of show and breeding flocks.

COLLIES

At Stud, Holyrood Clinker, Just imported. Fee \$10.00.

Robt. McEwen, Byron, Ont.

COTSWOLDS

Some good shearing ewes and ewe lambs, and a few choice ram lambs, right type, for sale. Prices moderate.

E. F. PARK, Burgessville, Ont.

NEWCASTLE HERD OF

Tamworth Swine and Shorthorn Cattle

Boars ready for service, and sows bred and ready to breed, and a whole lot of beauties from 2 to 4 months, both sexes. Pairs supplied not akin. Our younger stock are mostly all the get of Newcastle Warrior, winner of sweepstakes and silver medal at Toronto, 1905. We also offer our present stock bull, Donald of Hillhurst, No. 44690, son of Imp. Joy of Morning, as his heifers are n.w. of breeding age, together with a few choice heifers and cows in calf to above bull. All inquiries answered promptly. Daily mail at our door.

COLWILL BROS., Newcastle, Ontario.

Mount Pleasant Herd of Tamworths

and Holsteins. A large herd of choice pigs of all ages on hand. Mount Pleasant type of hogs are profitable breeders and ideal bacon hogs. Pairs not akin. Herd headed by Colwill's Choice No. 1343. Won sweepstakes and silver medal at Toronto, 1901-2-3. Also a few bulls.

Bertram Hoskin, The Gully

Tamworths and Dorset Horn Sheep.

A choice lot of pigs of different ages and both sexes. Some fine shearing rams and ewe lambs.

JAMES DICKSON, Oroon, Ontario, "Glenaira Farm."

MONKLAND YORKSHIRES

Imported and Canadian-bred. We keep 35 brood sows, and have constantly on hand between 100 and 200 to choose from. Can supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

JAS. WILSON & SONS, FERGUS, ONT. G. T. R. and C. P. R. Long-distance Phone

Rosebank Herd of

LARGE ENGLISH BERKSHIRES

Present offering: Choice stock from 6 weeks to 5 months old, sired by Concord Professor and Willow Ledge Crown 8th. Can supply pairs and trios not akin. Satisfaction guaranteed. Express prepaid.

JOHN BOYES, Jr., Churokhill, Ont.

CHESTER WHITE SWINE

Shropshire Sheep and Mammoth Bronze Turkey Eggs. Write for prices.

W. E. WRIGHT, - Gleanworth, Ont.



Don't Pay a Cent

To men who are run down, weak and puny, and who have lost the force of vitality, who feel gloomy, despondent and unable to battle with the affairs of life; who have Rheumatism, Back Pains, Weak Stomach and Kidneys, and feel generally as if they needed to be made over. If that means you, come to me and if I say that I can cure you I will give my Electric Belt free

Until You are Cured

I don't want money that I don't earn. I don't need it, and am not after it. But I am after the dollars that are now going wrong in the quest of health. Look at all these poor wrecks of humanity that are spending all they earn on drugs—drugs that is paralyzing their vital organs—that have spent all they have earned for years without gaining a pound of strength for the hundreds of dollars wasted.

That is the money that I am after, because for every dollar I take I can give a thousand per cent. interest, and I don't want it at all until I have cured you if you will secure me. I have cured so many cases right here that I can prove my claims to you, but if that proof is not enough, I'll give you the names of men right near you—where you are. Is that fair?

I want you to know what I have done for others. O. JOHNSON, North Bay, Ont., says: "For building up a weakened and run-down constitution nothing can equal your Belt. I feel like a new man, and consider it worth its money many times."

If you would believe the thousands of men whom I have already treated, my Belt is worth its weight in gold.

WM. SOUTH, Erinda'e, Ont., says: "I suffered severely from sciatic rheumatism, and tried different remedies, but got no benefit, and am pleased to say your Belt has completely cured me in less than two months."

But some men don't believe anything until they see it. That's why I make this offer. I want to let you see it, and feel it, and know it by your own experience, before I get a cent.

If I don't cure you, my Belt comes back to me and we quit friends. You are out the time you spent on it—wearing it while you sleep—nothing more.

But I expect to cure you if I take your case. If I think I can't cure you I'll tell you so, and not waste your time. Anyway, try me, at my expense. Come and see me, and let me show you what I have, or if you can't then cut out this ad. and send it in. It will bring you a description of my Belt and a book that will inspire you to be a man among men; all free.

CALL TO-DAY

Free CONSULTATION BOOK TEST.

IF YOU CAN'T CALL, SEND COUPON FOR FREE BOOK.

DR. M. S. McLAUGHLIN,
112 Yonge Street, Toronto.

Dear Sir,—Please forward me one of your books as advertised.

NAME
ADDRESS
Office Hours: 9 a.m. to 5.30 p.m. Wednesday and Saturday till 9.

BERKSHIRES

Imported and Canadian-bred
H. M. VANDERLIP, Cainsville,
on T. H. & B. and B. & G. division of Grand
Trunk. Telephone and telegraph, Cainsville.

HILLCREST HERD OF ENGLISH BERKSHIRES

For Sale: A lot of very choice young things of various ages. We prepay express charges and guarantee satisfaction. Enquiries promptly answered.
Vine Stn., G. T. R., near Barrie. JOHN LAHMER, Vine P.O., Ont

Spring offering of LARGE WHITE Yorkshires



A fine lot of March pigs from imported stock, fit for show purposes; also some good young sows bred to a prizewinning imported boar.

Orders taken for imported hogs, to be imported in June. Write

H. J. DAVIS,
Woodstock, Ontario.
Morrison Yorks. and Tams.



on hand, for sale. Are both sexes of both breeds. Bred from prizewinners and extra choice. Prices right.
Charles Currie,
Morrison P. O.,
Schaw Sta., C. P. R.

WOODSTOCK HERD OF BERKSHIRES



Have for sale young pigs. Both sexes. Of March and April farrow. All from Imp. sires. I can supply pairs not akin at reasonable prices.

Imp. Foigate Dector.
DOUGLAS THOMSON, Box 1, Woodstock, Ont.

For Sale—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigree and safe delivery guaranteed. Address:
G. D. GEORGE, Putnam, Ont.

YORKSHIRES

Two grand (imp. in dam) sows, bred to farrow in June, to a show boar; also a young litter ready to ship in April. Orders booked ahead and satisfaction guaranteed.
L. MOOREY, Peave's Corners P. O., Fenelon Falls Station.
Elmfield Yorkshires
Have still a few choice young hogs from Summer Hill Chester, some young sows from imp. sire and dam; also a fine lot of suckers coming on. A few sows 7 months old, bred again.
G. B. MUMA, Ayr P. O.
Ayr and Paris stations.

QUESTIONS AND ANSWERS Miscellaneous.

TEAT EXPANSION.

Could you give me the address of some firm that make or sell teat busters?
N. W.

Ans.—If you mean a syphon for drawing off the milk, you can obtain it from almost any wholesale drug or dairy-supply house. If you mean a listoury, we would advise against its use, unless in the hands of a competent veterinarian.

TAMPERING WITH EMPLOYEE.

If you have an emigrant from the Old Country hired, and one of your neighbors sets him against you in saying he is not getting wages enough, etc., is there a way to stop it? ONTARIO.

Ans.—Not unless, incidentally, the neighbor is endeavoring to entice him away, in which case an action might lie for damages.

TAX EXEMPTIONS DESIRED.

I own farm situated near a town, and part within the corporation limits. Am I compelled to pay towards expenses that I receive no benefit from, such as street watering, scavenger, electric lights and cement walks? Now they are agitating waterworks to the tune of \$40,000. SUBSCRIBER.

Ontario.
Ans.—You will find elaborate provisions for relief from taxation in cases such as yours in The Assessment Act (Ontario Statutes of 1904, chapter 23), sections 39 and 40.

CATTLE COUGHING.

1. I have a cow that began coughing over a year ago, and at long intervals. Recently she stopped coughing, and is apparently well. She gives milk, bluish in color, which we only make use of in feeding calves, for fear of tuberculosis. She calved this spring. Would you advise keeping calf? Since two months ago, two steers have been coughing. As there is no veterinarian within thirty miles, I intend to treat as you will direct.

2. At what age would you advise castration of colts so as to minimize the danger of stunting their growth and spirit? Has the operation a tendency to cause such? Some say it has.
G. C.

Ans.—1. Would not advise you keeping any animal that has the slightest suspicion of tuberculosis. In the meantime, you might give for the cough: Chlorate of potash, pulv. nux vomica, pulv. digitalis, pulv. lobelia, of each 1/2 pound. Thoroughly mix, and give level dessertspoonful twice daily. We think calf might safely be kept.
2. Consider one year old the best age for castrating; prefer warm, dry weather, such as month of June. Do not think it injures their growth and spirit. R.

HIRED MAN LEAVING.

I engaged a man to work for me for 1 year at the rate of \$200 a year, starting to work on the 20th December, 1905. Now he tells me he wants to leave on the 20th of May, without giving any reason only that he wants to go to the Northwest. I would like to know about paying him as follows:

1. Can he claim wages at the rate of \$200 a year for the five months he has worked? He only had chores to do in the winter.
2. What would you consider would be suitable wages for the five months?
3. If I can get another man, and have to pay more wages in the summer, can I keep off the first man what I have to pay extra?
4. Can he collect his wages when he leaves, or can I hold it back till his time would be out, at the end of the year?
5. Could I come on him for damages for leaving me now, in a busy time?

Ans.—1. No.
2 and 3. We would say that there should be deducted from his wages enough to admit of your employing an equally efficient substitute for the remaining seven months of the term, and without having to pay in all more than the \$200.
4 and 5. If he leaves without your consent, you would be entitled to damages, and to hold back sufficient of his wages to fairly cover same, but we would recommend that a settlement be made such as we have suggested in our answer to your 2nd and 3rd questions.

Every Hour Delayed IN CURING A COLD IS DANGEROUS.

You have often heard people say: "It's only a cold, a trifling cough," but many a life history would read different if, on the first appearance of a cough, it had been remedied with

DR. WOOD'S NORWAY PINE SYRUP.

It is a pleasant, safe and effectual remedy, that may be confidently relied upon as a specific for Coughs and Colds, of all kinds, Hoarseness, Sore Throat, Pains in Chest, Asthma, Bronchitis, Croup, Whooping Cough, Quinsy, and all affections of the Throat and Lungs.

Mrs. Stephen E. Strong, Berwick, N. S., writes: "I have used Dr. Wood's Norway Pine Syrup for Asthma, and have found it to be a grand medicine, always giving quick relief. We would not be without a bottle of it in the house."

Dr. Woods Norway Pine Syrup is put up in a yellow wrapper. Three Pine Trees is the trade mark and the price 25 cents at all dealers. Refuse substitutes. Demand Dr. Wood's and get it.

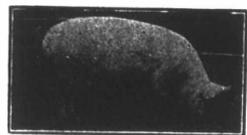
Asthma

CURED TO STAY CURED.

We give prompt relief and permanent freedom from Asthma. Our latest Book, No. 57F, will be mailed on request.

DR. HAYES, Buffalo, N. Y.

LARGE ENGLISH YORKSHIRES



Pigs of the most improved type, of both sexes, all ages, for sale at all times. We have more imported animals in our herd than all

other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and Bacon prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champion and grand champions. Prices reasonable.

D. C. FLATT & SON, Millgrove, Ont.

RIVER VIEW FARM

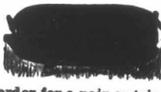


ROBERT CLARKE
Importer and
Breeder of

Chester White Swine

Pigs shipped not akin to each other. For price and particulars, write
41 Cooper Street, OTTAWA, ONT.

Oakdale Berkshires



Of the largest strains. Imported fresh from England. The produce of these and other noted winners for sale reasonable. Let me book your order for a pair or trio not akin.

L. E. MORGAN, Milliken Stn. and P. O.

Glenburn Herd of YORKSHIRES

Now on hand, a number of sows, 5 and 8 months old, for spring farrow; also a large number of September sows and boars. Booking orders for spring pigs.

DAVID BARR, JR., Box 3, Renfrew, Ont.

GLENHODSON YORKSHIRES AND POULTRY.

Sows bred or ready to breed, from choice imp stock, also young pigs, for sale. Buff Orpington, B. P. Rock and White Wyandotte eggs for hatching at \$1 for 15.

GLENHODSON COMPANY, Myrtle Station, Ont.
Long-distance phone at farm. Lorne Foster, Mgr.

Ohio Improved Chester Whites

100 Pigs to Offer of the long, deep, heavy sort. Breeding stock selected from the most noted families, with a view to size and quality. Booking orders for choice spring pigs; also a few fall pigs for sale. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe arrival guaranteed.

H. E. GEORGE, Crampton, Ont.

IMPROVED YORKSHIRES FOR SALE
just weaned; also pairs not akin for May breeding.
GEO. M. SMITH, Haysville, Ont.