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VOL. XL.

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LONDON, ONTARIO.

MARCH 30, 1905.

WINNIPEG, MANITOBA.

No. 653

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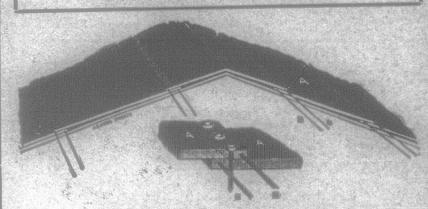


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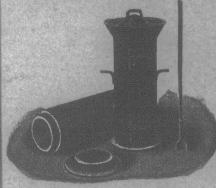
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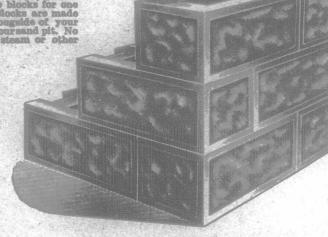
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THE MULE AND THE MAN.

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To language not bad, but far worse. His verbal perversions were quite unre-

To put it quite plainly he'd curse With richness of diction and great ani-

At any old place and on slight provo-

One day something happened, annoying extremely-

The limit in short it appearedmule, very likely-and language un-

By all the spectators was feared, But there stood the man open-mouthed

and blank gazing, His silence was eloquent, also amazing.

Some moments he stood there and no word he uttered.

Expectancy stood on tiptoe, And one to another the people they mut-

"Just wait; it's comin', I know."

Another short pause and the silence was

And these were the words by that

reprobate spoken: 'I can't do it justice," he said with a

Then added, alas! "But-it, I'll try." And he made a fairly good bluff.

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those who have helped us. To go through life a pigmy when na-

ture intended you for a glant. To kick over the ladder upon which we

have climbed to our position. To be grossly ignorant in these days of

free usuages of good society

To ignore the forces which are improving civilization in your own country.

Not to be able to carry on intelligently conversation upon current topics.

To shirk responsibility in politics, or to be indifferent to the public welfare. To know nothing of the things we handle and enjoy ever day of our lives.

To be ignorant of the general history of the world and of the various countries. Not to know something of the greatest leaders, reformers, artists and musiclans of the world.

Not to have intelligent knowledge of the general affairs of the world, and the inter-relations of nations.

Not to know enough about the laws of health, about physiology and hygiene to live healthfully and sanely.

To vote blindly for party, right or wrong, instead of for principle, because you have been doing so for years.

To be grossly ignorant in these days of free schools, cheap newspapers, periodicals, and circulating libraries.

To be so controlled by any appetite or passion that one's usefulness and standng in the community are impaired.

To be totally ignorant of natural history, to know nothing of the science which underlies the beauties and the marvels of nature.

Not to have an intelligent idea of the country in which we live, not to know its history, its industries, and the conditions of its people.

Not to know anything of the movements for human betterment and not to help them along to the extent of our

ability in time or money. To live in the midst of schools libraries, museums, lectures, picture galleries, and improvement clubs, and not to avail oneself of their advantages .- O. S. Marden, in Success.

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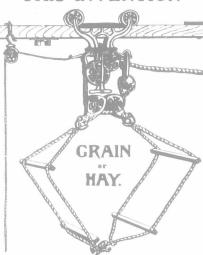
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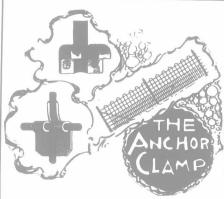
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Vol. XL

LONDON, ONT., AND WINNIPEG, MAN., MARCH 30, 1905

No. 653

EDITORIAL.

The Relation of the Factory Instructor to the Patron.

Few of us appreciate what the Dairy Inspector has done since the days of Prof. Arnold, down to the present, to improve Canada's position in the British cheese market. We have been wont to attribute our success mainly to co-operation, overlooking the fact that mere factory manufacture, without a general system of instruction, would have failed to secure that uniform excellence necessary to the building up of a national reputation, wherein lies the only hope of assuring profitable employment for the man who milks the cow. Uniformity has been the call trumpeted across the Atlantic ever since we be an to figure in British dairy markets-uniformity in quality, color, salting, style, package; in fact, uniformity all round. High average merit will not avail When we reflect that the British without it. distributor handles wholesale quantities of produce from all parts of the world, and that there must be but small chance of the make of any factory being placed regularly before the same set of consumers, it is plain that to create and hold in the consumer's mind the favorable prejudice, recognized as such an important factor in modern trade, we must do everything possible to guarantee that all goods labeled Canadian shall be right up to the mark in quality, and uniform, so that the purchaser may depend always on finding beneath our brand just what he expects. Fool him a few times and he concludes the country's make is unreliable. Thus, in a cosmopolitan market like that of Britain, the blame for inferior butter or cheese falls not directly upon the producer, but upon the trade of the country or province whence the goods purport to come. Recognizing of Ontario years ago adopted the system of appointing instructors, who visit the factories, of-Last year there were over thirty instructors in the Province, and this year the num! er will be considerably increased. The explanation of the number is the good that they have be n able to accomplish, and this in turn is due to the selection of competent men, and the charging of a fee to the factories desiring their visits. Were the instruction given altogether gratis, it might not be so highly esteemed or so fruitful in results. Until this year the charge has been uniform, but it is now proposed in the Western Association to put it on a sliding scale, the larger factories paying a slightly larger fee. It is hoped by this means to introduce instruction into quarters where it is much needed, but would probably not be asked for at the higher rate.

During the past two years special efforts have been put forth for the benefit of makers, with a special view to the adoption of uniform methods of manufacture. To this end the instructors were required to attend a special dairy school class for the purpose. Methods were thoroughly discussed point by point, until a common practice was agreed upon in every step down to the last detail, and the instructors have since been inculcating these into the minds of the makers they have visited. The result has been a general improvement in manufacture and a gratifying approach to uniformity of product. It has been customary for the instructor to spend the major part of the day at the factory, watching the day's operations, in which he assists, offering pointers and making milk and curd tests. If the test showed it necessary, a drive to a few farms would

two years, the aim being to improve conditions by persuasion and education. 'The result of this conciliatory policy is an improved attitude towards the instructor, the patron's former suspicion that he was a sort of spy giving way to the understanding that he is a valuable aid to the maker, and perchance to the patron himself.

During the ensuing year the Association contemplates rather a new line of work. Having improved things pretty radically in the factories, it is considered time to do a little more systematic work among the patrons, by having the instructor spend his time in house-to-house visits among them. In cream-gathering districts it may be feasible for him to accompany the driver. While the latter is weighing and sampling the cream, time would be afforded to note the conditions of the dairy and yard, and for some helpful conversation. In cheese sections a rig would have to be secured, and the farms visited in company with the factoryman or someone else locally acquainted. It would seem a good plan also to hold evening meetings sometimes in the less busy seasons. By this visitation the instructors would be brought into practical touch with farm conditions, and much good information could be diffused, not only from their, own store of knowledge, but through the opportunity to pick up and convey practical pointers from one farmer

To hold our own in the British cheese market and capture a larger share of the butter trade, we must continually improve both in production and manufacture. The example is properly expected from the factorymen, as there is no use having first-class milk spoiled by a poor maker. The factorymen, however, are now, for the most part, a pretty competent and progressive clas-. this fact, the enterprising Dairymen's Associations It remains for the farmer to do his part by greater care and religious observance of the all-important requisite, cleanliness. With faithful effort fering practical suggestions where needed, in the all round there is no limit to the development of hope of raising the average quality of the prod- the dairy business in Canada; but we must work harmoniously, and especially this season, with the contemplated programme of instruction, it is desirable that the best relations should exist among instructors, patrons and makers.

A Prize Farm Competition.

As an incentive to the more general adoption by farmers of improved methods of cultivation and care of their holdings, a systematic rotation of crops, and a consequent increase of the fertility of their land, together with a greater amount of attention to improving their live stock and the general appearance of their farms, it was suggested in these columns a few weeks ago that a renewal of the practice of offering prizes for the best conducted farms might well be adopted by the Provincial Departments of Agriculture somewhat on the lines pursued by the Agriculture and Arts Association of Ontario some years ago. The system adopted at that time was to offer medals of varying value for the first, second and third best kept farms in districts or groups of counties, into which the Province was divided, one or two of such districts being taken up each year, and when all had been judged, the first-prize farms in each district were pitted against each other for a championship trophy. A keen interest was taken in this friendly competition, which had a stimulating effect, not only upon those who were successful in securing prizes, but upon all who entered for them, and also upon many who, profiting by observation of their methods, or by reading the published reports of the judges on the

follow. It may be noted that there have been different farms, were led to adopt in their own no prosecutions by the Western instructors for practice some of the features of the most successful systems. A good example has an improving effect in farming, as well as in morals and character building. This has often been exemplified in the matter of planting trees, in fencing, in the care of buildings, the cutting of weeds, the draining of a swamp or slack place in a field, and in many other ways, involving no greater expense than the general farmer can afford, and proving a profitable investment. County agricultural societies, or, even town-

ship societies, might take up this work to advantage for local competition, and the Ontario Provincial Department of Agriculture could well utilize existing machinery for carrying out the idea on the larger scale, while other provinces might profit from the example. We suggest that the Minister of Agriculture take the initiative, and that the President of the Agricultural College, the Superintendent of the Farmers' Institutes and the Superintendent of Fairs might safely be entrusted with the working out of the details of the scheme,

including the selection of judges. In the event of action being taken along these lines, a timely announcement should precede the commencement of the competition, and if the commencement is to be held a year from this spring, the heads we have indicated or others equally furnished with good gray matter, should, if possible, be brought

together in the very near future for the consideration of the subject.

Another Idea Exploited as a Fad.

For some time past the press has contained frequent reference to the new so-called "fertilizer," nitro-culture, which is simply a culture in yeast-cake form of any one of the several species of nitrogen-gathering bacteria which are found in the nodules on the roots of leguminous plants. As usual with these discoveries, some extravagant claims are being made by the numerous firms which are now undertaking to supply the culture commercially. The fact is no results worth mentioning need be expected from application to soil where the legume for which it is to be used has previously grown, as such soil is already inoculated. On soil where clover or alfalfa has not recently grown, nitro-culture might be worth trying, but we would not advise a farmer to spend money on it till it has been further tested at our experimental farms and elsewhere. Good cultivation, short rotation, and barn-yard manure, supplemented with ashes, and perhaps a little mineral fertilizer for the special benefit of the legumes, may always be depended upon for results, and with such methods artificial inoculation is likely to prove an unnecessary expense.

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THE WILLIAM WELD COMPANY (LIMITED), LONDON, CANADA.

Instances of Successful Co-operation: III.

AGRICULTURE.

In my first article, March 16th, I stated that every kind of co-operation that can be useful in Canada had been tried with success somewhere. In giving instances to prove that statement, I shall give such details as will serve to show how their success is dependent upon the methods of organization and of operation which have been followed

I. Co-operation for the improvement of agricultural methods, by institutions for obtaining and exchanging practical and scientific knowledge. As already stated, in addition to the agricultural press, our Farmers' Institutes, Dairymen's, Fruit-growers', and other associations, completely "fill the bill" in this particular. However, these associations and the institutes should be better and more numerously patronized.

II. Co-operative purchase of supplies. of the most important purposes to be served by farmers' Under different methods such organiza organizations. tions exist in Denmark, Germany, France and Belgium. Denmark has a National Co-operative Supply Association, organized as follows: Local societies are composed of farmers who individually guarantee, first, to make all purchases of certain supplies through the society; and, second, to bear joint proportionate liability for purchases made by the society. These local societies are managed by an elected committee and secretary, and they elect also representatives to district associations, which are similarly managed, the district secretary arranging for distribution of supplies among the societies of the district. These district associations are federated in turn into the National Association, similarly managed, which has offices in Copenhagen, through which are purchased in bulk such sup plies as fertilizers, machinery, seeds, etc. It has eight large stores, a capital of \$110,000, a reserve fund of \$137,500, and last year distributed over \$180,000 worth of pure seeds alone, all grown at its own experimental

Germany has a double system for purchasing-one like that of Denmark, the other being the Raisseisen Banks, originally organized to provide members with farm capital, but subsequently arranging to make their purchases for them. Germany has over 1,000 purchasing societies, besides the banks.

France has a Central Farmers' Union for purchasing

fertilizers (their original object), feedstuffs, tools, etc., which has a membership equal to twice the whole number of farms in Ontario. This union purchases over \$10,000,000 worth of supplies annually, through the national offices alone, and over \$40,000,000 worth in all. As in Denmark and Germany, the farmers thus have virtual control of the markets of those supplies handled. In 1882 no fertilizers were used in France; now one firm alone makes over 15,000,000 tons annually, and the price has been reduced over 50%, while quality has improved at an equally great rate. Belgium has a similar organization, with similar results.

These countries have shown the advantage of such co-operative organizations to be

- (1) Great reduction of manufacturers' prices, by ordering in bulk and doing away with travellers.
- (2) Great saving of cost to farmers, by doing away with local middlemen.
- (3) Great saving in transportation costs, by handling in bulk; and

(4) Certainty of getting the best quality of every article, all supplies purchased having to stand tests by the association's experts.

III. The co-operative manufacture of farm products, as butter and cheese making; bacon-curing; meat canning; preserving, etc.; egg and fruit packing, etc. Denmark stands head of the market in quantity and quality of butter, bacon and eggs. Canada beats the world in cheese. France has shown what can be done by cooperative fruit-packing. The leading examples of cooperative undertakings are, however, afforded by Denmark.

[Note.—The cheese-factory system in Canada was an immense advance over the old go-as-you-please individual It introduced uniformily intelligent farm plan. methods, and laid the foundation of our present strong Headed by some enterprising dairy farmer position. or maker, farmers formed joint stock companies, supplying the capital to establish and run the factories, but these companies several years ago began rapidly dying out, by falling into the hands of private owners, usually the makers, but the system of manufacture remains .- Ed.]

Nearly 200,000,000 pounds of Danish butter were sold in Great Britain in 1902, at 231 cents per pound, while Canada sold there less than 4 per cent. as much, at.20 1-3 cents per pound. Australian butter sold at a cent per pound more, so it can't be distance that made the difference. Danish butter is made in creameries owned co-operatively, and that is the reason. Danish butter costs to make only 7% per cent. of price received. With cows yielding 6,000 to 11,000 pounds of milk per annum, a farm of 100 acres would clear \$60.00 per cow each year. Co-operative dairying, in the spirit and with the methods of the Danes, makes the most and the best of everything. Be it remembered that they use only one-third as much land as do the farmers of Ontario. Let us see how they do so much with it.

Denmark has 1,046 co-operative creameries, and 185 Joint-stock creameries. They are small, averaging 800 cows each, such being found most profitable. Notice the distinction between the co-operative and the joint stock creameries, as revealed below. The co-operative creameries are established everywhere, upon the following guarantees by individual members

(1) Guarantee of supply of all milk for five years (2) Guarantee of unlimited, proportionate security for capital loaned by banks, etc.

(3) Guarantee to comply with specific rules, as to feeding and care of animals, and care of milk.

Pasteurizing is obligatory by law. Therefore, with cortainty of capital of supply of milk in hest dition possible, and of scientific manufacture, creameries in Denmark cannot but succeed in turning out the best butter at a good profit; and by selling it themselves, the farmers' association returns every possible cent to the farmers themselves.

The farmers owning these local creameries, organize into district associations, the functions of which are

- (1) To hold experimental investigations. (2) To hold district butter competitions, for pur-
- pose of educating creamery workers. (3) To provide lectures, discussions and expert visitation of all creameries and farms for educational pur-
- (4) The preparation of comparative returns as to costs of production, prices realized and amounts paid for milk at different creameries; a sort of stimulus to competition within the great combine, in order to bring
- (5) To provide expert supervision of cow selection and breeding by farmer members.

all to the highest level.

These district associations are federated into National Association, whose function is to bring districts into touch, to provide bulletins to all concerned in such a way as to spread the best practice over the whole country.

In addition, the creamery managers-the employees of the farmers' associations-have their own separate national organization, which instructs operators, keeps managers in mutual touch, so as to help in improving methods. There is a National Butter Quotations Committee, which fixes weekly quotations on basis of English prices; and, finally, a system of organizations for the sale of butter. There are eight of these, composed of groups of creameries, each of which sells its product only through the association to which it belongs. All these associations again are organized nationally, and observe uniform rules as to regulation of prices, etc. By this method of sale is effected reductions of trans-

portation and other costs. It will be noted that the Danish creamery industry is rather complicated as to its organization, but it is throughout both co-operative and thoroughly businesslike.

Danish bacon-curing in co-operative factories, is, perhaps, of more value as an object lesson to Canadian farmers than any one other instance. In 1902, such factories sold over 140,000,000 pounds of bacon, at 12.8 cents per pound by average, while Canada sold only one-third as much, at 11.3 cents, exactly 11 cents In 1888 there was one co-operative factory, the rest being private, as are those of Canada now. In 1902 there were 27 such, and only 24 private factories. In 1896, 525,006 hogs were sold by them, for \$6,250, 000. In 1902, 777,000 hogs were sold for over double the money. Note increase in value. The hogs average 129 pounds each live weight, and the farmers receive by average \$10.75 each for them, beside the bonus or "profit" of 80 cents per hog, paid semi-annually. Thus the Danish co-operative factory pays an average of \$8.92 per cwt. for live hogs, while Canadian private factories pay \$5.75 per cwt. for selects! In addition, remember, the co-operative factory pays for itself in 20 years, and gives itself to the farmer members who get such good prices. Co-operation pays in bacon-curing, evidently.

The average size of a factory district is one of 16 miles radius. Within this district the farmers get together, organizing parish societies, and then the dis-Each member gives a guarantee of trict association. proportionate unlimited security for loan of capital, and another guarantee that he will sell his bacon hogs only to the association factory, and pays his nominal That is all, except to elect officers, who hire a manager, borrow the capital, and erect the factory. It takes \$35,000 permanent and \$15,000 working capital to begin operations. This is readily secured—usually at 1% above bank rate-seeing how good is the credit of an association so organized. With this capital a factory is built which will kill 28,700 hogs per annum, but it is found that a supply of 10,000 hogs per annum is enough to warrant the undertaking. The Danes believe such factories-not too large-pay best. Note that the farmers put in no capital whatever, as is necessary in case of a joint stock company. The factory, as stated, sets aside a reserve fund, that in about 20 years pays off the loan, besides paying the above-mentioned prices and profits.

Each factory association elects two representatives to the National Co-operative Bacon-curers' Association, which is managed by elected officers. Its functions are, as in the case of the National Creameries Association, to bring all production to the highest level of quality, and to effect the greatest economies consistent with excellence. It holds informal competitions, exhibits being telegraphed for, in order to get them from ordinary stock, the results of which are to stimulate and educate the factory workers. Defects are criticised, factory faults to managers, farm faults of breeding or feeding to the farmers. This national association costs only about three cents per farmer, which is insignificant, in view of the wonderful improvements in type, feeding and curing that have thus been produced.

So much for Danish butter and bacon, as co-operation has made them. A little thought will see how their system of guarantees has resulted in their very marked success as nothing else could have done, enlisting the cordial co-operation of every farmer in the common object of producing the best because it pays. It may be added that only one factory has ever failed, and that because hogs were scarce in the district when it started. Also, though violation of the agreement to sell hogs only to the association is nunishable by a fine of \$2.50 per hog so sold, no member has ever attempted to evade his guarantee.

Scarcely less important as an instance of successful co-operative industries is the egg packing and shipping association of Denmark. District societies are formed by federation of parish societies. Larger federations of these district societies are then formed, by much the same method of organization throughout as in cases already outlined. The local societies have collectors, who receive eggs, weigh them, stamp with identification numbers, and forward to district society for packing. Thence they are shipped to the federation packing stations for examination, grading and packing, for shipment to England. Grading is according to size, and all eggs are paid for according to weight. Members are bound by guarantees to deliver only fresh eggs, and expulsion is the penalty of a second violation of the guarantee. Eggs must be clean. By this method of organization a large export, at highest prices, has been developed. In 1900, over \$5,000,000 worth, or about one dollar per Danish hen, was sold in Britain.

Germany has co-operative factories for making sugar from sugar-beets, for making spirits, starch, etc., from potatoes (a very important industry), and many other industries, all of which are organized similarly to those of Denmark. France has co-operative cider-making, fruit-preserving, and other industries, a good instance of which is the Commune of Roquevaire, which makes for its farmers 30% to 40% increased profits on its famous capers and apricots, beyond what they received prior to adopting co-operation in manufacturing and sale. Belgium has a large dairy industry on co-operative principles, which, begun in 1895, exported in 1901 \$4,500,000 worth of butter. It also is organized like that of Denmark. It is stated, on the best authority. that by the adoption of co-operation in different directions, the Belgian farmers make an increased annual profit of \$20.00 per acre. That, of course, is easily erative

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MARCH 30, 1905

financial aspect.

failures by way of contrast.

true of a country where intensive farming is so highly

be enlarged on, but I think the point is sufficiently

proven already, that co-operative industries can be

successfully carried on, if properly organized. In the

next article, instances of success in other ways of ap-

plying co-operation will be given, and some instances of

The Folly of Speculation.

for land or cash, is the primary cause of specu-

lation, but when to the above statement is added

the assertion that a great deal of speculation is

being done, without authority, on other peoples'

money, the problem assumes a serious moral and

is that land is at once going to become higher in

price, and, one would assume by the risks taken,

limited in quantity. The latter, we know, is not

the case. What are the consequences of this un-

bridled speculation? Bills and accounts are not

met, thus hampering storekeeper, merchant and

implement dealer, who, in their turn, are unable

to clean up their indebtedness. While conceding

that every man has a right to do with his own

as he pleases, the fact remains that the man

speculating while his store bills, etc., are unpaid,

and doing so unauthorized with the merchant's

by good farmers, at least, during the lifetime of

any of us, and there will be plenty available for

purchase at reasonable figures for the same

period, so that the appetite for more land than

a farmer can adequately work or pay for is justly

change or barter, which is entirely opposite to

getting something for nothing," whether such

be profits on a land deal or on grain options.

The history of the world of finance shows that at

some time or other the speculator invariably gets

caught in the meshes, to his ultimate discom-

farmers is that it tends to weaken the sturdy

honesty usually associated with the ideal of a

farmer, that it increases the strain on his mind,

and if he is working a farm properly, perchance

already under a mortgage, such becomes a heavy

tax on his health and strength. Then, as we

have already stated, he is appropriating to his

own use another's capital. A form of speculat-

ing just as reprehensible is to start farming on

too large a scale; in other words, seeking to do

big things with little capital. The beginner, new

settler, or old-timer, with scarcely enough capital

to attempt farming a half section. Even under

the most favorable circumstances he takes big

chances; ayo, mortgages his future in such a

way that he can barely pay the interest. Never

was a greater truism penned than "a little farm

well tilled." Size is not strength, and rapid

growth more frequently resembles that of the

mushroom than the oak. A short time ago,

figures were published in one of the big dailies

which showed, under the title, "Why Men Fail,"

the reason in sixty-five per cent. of the failures

to be "lack of capital"; in other words, em-

Speculation in land in Western Canada is right

now causing a financial stringency not at all

creditable to a country wealthy in natural re-

sources. Agriculture demands the best in a man.

The farmer who would be successful cannot afford

to divide his attentions or spread himself too

thin. He will find it better for his peace of mind

and health, more comfortable for his family and

more reassuring to his occasional creditor, the

merchant, if he leaves the chasing of fortune by

means of that will-o'-the-wisp, speculation, to the

person who calls himself a financier.

barking in business on a speculative basis.

work well a quarter section, is surely foolish

The unfortunate part of land speculation by

The basis of legitimate trade is the law of ex-

Farming land will always be worth purchasing

money, is both foolish and dishonest.

fiture, and sometimes utter ruin.

denominated "a craze."

A partial excuse for land speculation by farmers

Few will deny that unbridled greed, whether

AUSTIN L. McCREDIE.

Other instances could be given, and these cited might

HORSES.

Our Scottish Letter.

During the past fortnight we have been much occupied thinking about horses. The three weeks shows in London begin in the last week in February with the Shires; then come the Clydesdales in the first week of March, and the Thoroughbreds and Hunters in the second week of the same month. As if this were not enough, we have had thrown in the Blacon Point Clydesdale sale at Lanark, on 9th inst., when thirty Clydesdale mares and fillies made the magnificent average of £152 3s. 7d. The last great Clydesdale sale was held at Montrave, Fifeshire, on 8th April, 1892, when twenty-nine Clydesdales of both sexes and differing ages made an average of £149 15s. At Blacon Point sale the highest price was 500 gs., or £525, but at the Montrave sale there was the record made of 1,000 gs., or £1,050, for a two-year-old filly. The demand for Blacon Point mares was remarkably steady, and in spite of the blizzard which continued almost without intermission while the sale lasted, bidding was lively, and all offered were sold without reserve. family which sold best was that of the renowned Macgregor mare Royal Rose, a celebrated winner, bred by Mr. William Graham, of Edengrove, Pen-She was bought at his dispersion sale some years ago at Carlisle for 320 gs., and on Thursday three of her daughters made the splendid average of 350 gs, or £367 10s. apiece. The highest price of the day was £525, paid for one of these—Lady Primrose 16370. This mare was

Mr. William Colquhoun, Mitchell, Ont., has recently had shipped to him two solid, big, heavy They will be about due by this time, and horses. are pretty certain to maintain the reputation of Mr. Colquhoun as a stallion owner. Mr. David McLay, of McLay Bros., Janesville, Wis., sailed to-day with some choice specimens of the breed, which are pretty sure to do well for the firm in the States. Three of these and two of Mr. Colquhoun's horses were purchased from Messrs. A. & W. Montgomery, Castle Douglas. Mr. McLay's fourth horse was bought from Mr. A. B. Matthews, Newton Stewart, who always keeps good horses about him.

The London Hackney Show this year was attended by visitors from all parts. It was worth going to see. Quite a number of the best exhibits were sent up by Scotland, and, in particular, the champion stallion of the show. by Mr. Iain Ramsay, of Kildalton, Islay, and is named Diplomatist. He was got by that grand breeding horse, His Majesty, and was, I believe, for a time, located on the other side of the Atlantic. He was reserve stallion champion last year, the winner then being also from Scotland. The reserve this year was Mr. Benson's Copper King, a beautiful horse, got by Mathias, the stud horse at Mr. William Scott's farm of Thornhome, Carluke. This distinguished sire is a son of the renowned champion mare, Ophelia, good sort, and the only London champion mare which proved an unqualified success as a brood Mathias was sire of several very fine mare. driving horses at this show. Last year Mr. Scott exhibited the first of these in what was known as the Mathias gelding, now famous in the

United States as Radiant. He was first in the big class last year, and again Mr. Scott won the same class with another son of Mathias, named Thornhome Performer. This is simply a superb harness horse, whose rare color style, size and action form an unusual combination of merit. In another harness class Mr. Scott was 2nd with the brood mare Bryony, and he was third with her in a mixed class of harness mares and geldings. There is something unusually attractive for harness purposes in these Mathias geldings and mares. They show a rare degree of the best points of harness horses. In the pony classes, the championships both went to Scots-bred ponies. The champion pony stallion was Little Ruby, a phenomenal mover, bred by Mr. Alexander Morton, of Gowanbank, Darvel, and got by his stud horse, Ruby 1342, out of the ideal pony mare, Little Woman. Three



Clydesdale stallion. Winner of championship and Cawdor Cup for 1902, and for four years in succession at the Glasgow Stallion Show. Sire of the 1905 champion Marcellus.

known as the Chicago champion gelding, Archie, and she is sure in foal to the champion Baron's Pride 9122, whose produce sold throughout the day for very high prices. The second highest figure was 440 gs, or £462, paid for, the Cawdor Cup mare Royal Ruby, got by Baron's Pride, out of Royal Rose. The third highest price was 400 gs., or £420, paid by Mr. J. Ernest Kerr, of Harviestown, Dollar, for the black mare Chester Princess 16371, own sister to the good breeding horse, Pride of Blacon 10837. Cedric Princess 15274, a Cawdor Cup winner, also like Lady Ruby, made 315 gs., or £330 15s., her buyer being Mr. Wood, Dramdykes, Carlisle. This family made good prices. Her full sister sold for 180 gs., or £189, and two of her daughters made 105 gs. and 141 gs., both young and very promising. The four made the fine average of £194 10s. apiece. The dam of Cedric Princess was a Cedric mare, bred by Col. Holloway, Alexis, Ill., and one of four great mares retained by Mr. Smith as a nucleus of a further stud at Blacon Point. The other three are Royal Rose, Orphan Princess, the dam of Chester Princess, and Jean Macgregor (a grand breeding mare by Macgregor) dam of the famous filly Teanie Deans. Fifteen brood mares made an average of £211 6s. 7d. Four three-year-old fillies made £112 12s. 3d.; seven two-year-old fillies, £92 1s., and four yearling fillies, £75 1s. 6d. There is still plenty of money in good

got by the good horse Prince Pleasing, better

Clydesdales, and the best pay best. Before leaving Clydesdales, I may mention that

gets of Ruby were exhibited, and they secured the honors won by Little Ruby now detailed, second in the brood mare class with Beada, and first and reserve championship in the Pony driving section with Pinderfield's Ruby. Another Hackney bred at Gowanbank, and named Lord Ossington, won the stallion class not exceeding 14.2 hands. He has exceptionally true Hackney action. The champion pony mare was Merry Polly 8250, bred by Mr. R. H. Walker, of Hartwood, West Calder, a pioneer Hackney breeder in Scotland. She is now owned in England, and is a model pony type The three-year-old pony stallion class was also won by Scotland, the animal being Horace Junior, bred by Mr. James McMeeken, Dumbreek, Ibrox, and the owner, Mr. W. S. Miller, The Moorings, Dumbreek. He was got by the great Sir Horace, one of the best pony stallions ever foaled.

Mr. Oswald Sorby, Guelph, was buying Hackneys at London, and succeeded in securing a few good ones, with which he sailed to-day. One is Rillington Grandee 7581, a particularly nice, wellmade and well-colored horse, which ought to be popular as a harness sire in Canada. An interesting feature of the London Show was the class for stallions in harness. It was won by a superb harness horse, Walden Squire John, a son of the famous Gentleman John, which stood nearly topsman as sire of the right kind of harness horses. This class for stallions in harness filled well, and amply justified its institution.

The Thoroughbred and Hunter Show is a function by itself. The Thoroughbreds are a queer breed of horses, if the samples one sees at

A Voice from the East.

In renewing my subscriprion to your fournal, I must say you are putting up a pretty good thing, and one which is indeed a clean, fearless advocate R J MESSENGER. of the farmer.

Annapolis Co., N. S.

Islington are typical. A straight-goer in front was scarcely to be seen. Some were strong, big Morses, but the mystery of judging these stallions The Hunter championships were is beyond me. all won by Mr. Stokes, Market Harboro', a popular hunting-horse owner. "SCOTLAND YET."

Developing Action.

I have a pair of Hackney fillies, three and four years old. How should I train, exercise and care for them in order to develop action? A. M. R.

The art of developing action in horses, in order to get the best out of them, cannot be acquired all at once. It requires practical experience and great patience, and it is quite possible that if a man without experience should attempt to do it, simply acting from instructions, he might practically spoil horses that under different handling would have made The peculiarities of each animal good actors. must be studied, and the animal treated accord-This applies particularly to the weight of shoes to be worn. Most horses act better with heavy shoes, but some require much heavier than others, and the trainer must study and experiment with shoes of different weights in order to ascertain just how the subject should be shod, in order to enable him to do his best. Then, again, a horse that does not go straight in front, that either paddles or rolls, can be improved by careful shoeing, and the trainer should understand these points, and be able to give the shoeingsmith instructions.

On general principles, in order to develop action, it is necessary to shoe with rolling-motion shoes, both fore and rear, and the shoes must be of that weight which suits the individual. is usually safer to commence with a shoe of about one pound weight in front, and, say, twelve ounces behind, and as the animal becomes accustomed to going, gradually increase the weight, until, in some cases, nearly twice this weight is worn. Exercise is usually given on the lounging rein, and the practice of exercising through deep straw, snow or water, reaching about to the knees, causes him to flex both knees and hocks, and gets his feet high, and at the same time tends to develop shoulder and stifle action, and increases the length of stride. He should be given exercise twice daily, but should never be given sufficient to tire him, or cause what is sometimes called "leg-weariness," as a tired horse will not act Trotting horses in a stream of water about the depth named has given good results, but where this is not convenient straw does well. Some recommend logs or other solid objects, but I do not like it, as if the horse makes a mistake he may bump his leg sufficiently hard to cause lameness, and possibly leave a permanent blemish. It is claimed that if he hits himself and it hurts, it will cause him to go higher and not hit again, but I am of the opinion that such radical measures are better untried, and that action had better be gradually developed in safer ways. When the trainer has not the time or the inclination to train the horses on the line, but wants to do the training in harness, he should get them shod as stated, and drive them with Liverpool bits, with a little curb, sufficient to cause the mouth to be slightly drawn towards the breast. He should drive them a little twice daily, make them drive up well all the time, teach them to walk well, and, when trotting, keep them well in hand, and bearing slightly upon the bits, and never, under any circumstances, drive far or long enough to tire them.

Stumbling.

The horse that stumbles should not be whipped for the accident. He may stumble because he is badly shod. He may have a nervous disorder that occasionally causes him to lose control over one or another part of the nerves that are used in his complicated work of walking, trotting or running, while pulling a load or holding it back, Whatever may be the cause of his stumbling, whipping the stumbler will do no good. The horse does not stumble for pleasure or through design. Stumbling is painful to him. Just why he should be tortured with a whip after his whole nervous and muscular system has been wrenched in a stumble and a struggle to keep his feet, no one can tell. The whipping comes after the accident. The horse does not understand that the stinging lashing is a warning to him not to He regards it merely as an stumble again. added torture.-[Farmer's Guide.

The Soundness of Hackneys.

The exceptional soundness of the breed may be judged by the following figures. At the London Hackney Shows, from 1890 to 1904, inclusive, 4,946 stallions, mares and geldings have been thoroughly examined by the veterinary inspectors, and of this number 4,704 have been passed as sound, only 212 being rejected, the larger proportion of these being horses entered in the half-bred and harness The examination is a most stringent Time the 1896 show every animal present

a favorable result needs no comment. This general soundness is frequently quoted by

Continental buyers as one of the most prominent characteristics of the breed.

Fads in Horse-breeding.

We would be remiss in our duty if we refrained from pointing out the dangerous doctrine to breeders and workers of farm horses, that the limbs, especially the part below the knee and hock, were the only important parts in a horse; in other words, the breeder of horses for farm work must be careful to avoid going to the extreme in demanding quality and action in the draft stallion he uses, and he must not overlook a quality just as important, viz., good digestive

No horseman will claim that any one breed of draft horses is perfect, or that one breed only is useful for grading up farm horses, yet the acceptance of the theory that quality of the lower limbs is the only essential, limits the farmerbreeder in the breeds he may use, and also limits

him in the choice of stallions. A marked deficiency in many stallions of the Clydesdale breed is the shortness of the back ribs or flatness of ribs, especially the former. deficiency is a very serious one in a work horse, because the possessor of such a weakness is invariably a hard feeder, wears out quickly, and is frequently a candidate for the attentions of the veterinarian. A bread-basket is essential to the Western farm horse, and is, in our opinion, of more importance than extra quality in limb, when the nature and locality of its work is considered, such as long days, short time to feed, errors in feeding, etc. In spite of the well-known handicap that many a Shire horse in Western Canada labors under, viz., a lack of the so-called Clydesdale quality in his limbs, the fact remains that the horse bred south of the Tweed-the Shire-has, on account of his substance and ample dinner-basket, due to his depth of flank, proved a valuable sire of tough, easy-keeping work horses. It is doubtless, owing to the above qualities that the popularity of the Percheron is due.

The demand for quality in legs and feet cannot be condemned, especially if work on city pavements is considered, yet we must not overlook an equally important point, namely, a good middle piece, with its accompanying deep flank, indicative of a roomy bread-basket, easy-keeping and goodwearing qualities.

Prejudice should not be allowed to bias one's judgment in the selection of live stock out of which he hopes to make money.

STOCK.

The Birmingham Bull Sale.

At the annual spring show and sale of Shorthorn cattle at Bingley Hall, Birmingham, on March 9th, there were 696 entries, 537 of which were bulls, and 159 females. Of the latter, practically all were purchased for home herds, the top price being 100 guineas, for Mr. J. Colman's twoyear-old heifer, Ada, purchased by Mr. R. P. Cooper. Of the 537 bulls, 352 were sold, the average price being \$258, and the highest price \$2 887 Jolliffe's eleven-months Prim Earl, by the Duthie-bred Primrose Pride, by Pride of Morning, purchased by Mr. Rodger for South America, and the same price for Mr. Roland Ward's Clapton Reliance, purchased by Mr. Mc-Lennan, also for Argentina. Thirty-four animals made over \$500 each-thirty-three bulls and one

Ration for Fattening Cattle

We are feeding a load of exporters. Night and morning we feed timothy hay, and at noon clover, all they will eat; grain ration consists of two-thirds corn, balance principally oats, a little peas, wheat, and parley. Feed a little salt every morning, and sulphur once a week. Some of the cattle are very loose; can you tell me something to regulate them? Should they get sulphur oftener; some of them are very scurvy in the skin? What quantity of grain mixed as above should be a ration? Am feeding between eleven and twelve pounds a day, in two feeds; have no turnips. Would like to finish as soon as possible. Kindly advise.

Oxford Co. A. W Ans.-When feeders are anxious to hurry their cattle on there is always danger of overfeeding. The quantity of grain you are giving should be about right, and yet it may be too much for some of your cattle, and you might try if a lighter ration would not mend mut You are likely giving plenty of sulphur; a table. spoonful each once a week is about right. We would recommend two changes in your meal ration: First add oil cake to it, at least a pound a day for each animal, to balance the excess of form meal; we think it would improve the health, and increase the laving on of flesh. Second, mix the meal before feeding with some sort of roughage, as cut straw, chaff, short straw. or even long hay. We know of cases where there was a tendency to scours, where this simple change has worked wonders.

in the show has been submitted to the vets. Such Prof. Grisdale's Stock-feeding Figures Criticised.

To the Editor "Farmer's Advocate":

Sir,-I notice in your issue of March 9th, an article by John Kennedy, of York Co., Ont., on the beef situa-Mr. Kennedy has seen in print, and I suppose heard from the lips of Prof. J. H. Grisdale, that it costs seventeen cents to produce a pound of beef on a steer from two to three years of age. I remember hearing Prof. Grisdale make that statement at our Fatstock Show, at Amherst, in December last, and I have seen him reported as saying the same thing before audience after audience in the Dominion of Canada. I heard him state at Sussex, N. B., at a meeting of the Farmers' and Dairymen's Association, in 1903, that the only heavy milking herd of Shorthorns in Canada was that of A. W. Smith, of Maple Lodge, Ont. I have pondered these things over in my mind time and time again, and have come to the conclusion that the Professor is, like the majority of men, only human, and, therefore, liable to make statements that some of us cannot digest.

Let us "reason together" for a little. He says that it costs five cents to make a pound of gain when the animal is one year old; or, in other words, an animal that is sold at five cents per pound when one year old is paying back to the owner what he actually cost to date. The Professor says it costs eight cents per pound to make a pound of gain from one to two years old; or that a beast sold at eight cents per pound at two years old is simply paying expenses. Again, he says it costs 17 cents per pound to make a pound of gain from two to three years of age: in other words, the animal would have to be sold at 17 cents per pound or the owner would be in debt. These are the figures that appeal to us when these gentlemen are making the speeches, but of course they do not expect the animal to sell for 17 cents per pound at three years old to actually pay expenses

Let us assume an animal to weigh 900 pounds at one year old; 900 pounds at five cents amounts to \$45.00. Now, allow a gain of 300 pounds for one year, or at two years old the beast would weigh 1,200 lbs.; cost per pound, of 300 pounds gain, 8c .= \$24.00. Again, allow a gain of 300 pounds until three years old, at 17 cents per pound=\$51.00, cost to keep steer from two to three years old. We will now see the cost, according to the Professor's reckoning, of raising a steer to three years of age

900 lbs. weight, at one year old, at 5c.....\$45 00 300 lbs. gain, from one to two years old,

at 8c. 300 lbs. gain, from two to three years old, at 17c. 51 00

\$120 00

Now, Mr. Editor, these are the figures that are given to us by the teachers of to-day. According to this we have actually got to sell at these figures or we are losing money, and even if we sell at three years old at these prices we are only getting pay for what the

Can you tell me how I am to raise a family of a dozen, give them a first-class education, and enjoy all the modern improvements necessary to be an up-to-date citizen? I will make the assertion that if the Maritime Provinces were gone over, from north to south and east to west, a carload of cattle could not be got one year old any time in the year that would bring five cents per pound. I think I am well within the cars of two-year-olds could not be got that would bring five cents per pound. We are certain that three carloads of three-year-old cattle cannot be found at any time during the year that would bring five cents per pound; and yet four-fifths of the population of this country are farmers, and the most of them raising some beef cattle. What a sad, sad picture for agriculture-actually four-fifths of the farmers are working year in and year out, and losing money constantly? If we lose on the steers, what on earth do we gain on?

Strange to say, it is possible to hunt up a hundred farmers in 24 hours who have been in this business for a quarter of a century, with excellent farms, fine barns and houses, and a bank account to settle on their children, and this is perhaps the case, and has been all over the Dominion, long before Prof. Grisdale was born, and yet he says a three-year-old steer weighing 1,500 pounds will need to sell for 8c. a pound, or \$120, to actually pay expenses!

We farmers are put on this earth to feed the multitude. Beef we must have. If we cannot raise it in these provinces at a profit, we must give that duty over to Alberta and sections where it costs practically nothing. Then we must turn our attention to porkraising, and if we get the market overcrowded, as this year, and the pigs get the rheumatism, we will have to flee to the dairy business and milk the Jersey cow. The P. E. Islanders will need to vacate the Island, or build a tunnel, and we in New Brunswick, who have been in the beef business, must seek an existence on the railroad, or in the civil service, and end our days in peace. West Laureland Co., N. B. BLISS M. FAWCETT.

Our Premium Knife.

Ingr Sire.-Thank you very much for the pretain whife. It is a splendid and useful ORLANDO LEWIS.

1866

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That well-known authority, Robert Bruce, of Dublin, has the following in a contemporary: The system under which pedigrees are recorded in the herdbook, although perhaps more concise and convenient than any other which might be more instructive, is apt to be misleading. It has, no doubt, led to undue appreciation of what are often spoken of as families. For example, a cow of note at some more or less remote period has been entered under a name. The name of such foundation cow may or may not be continued in the case of her female descendants, but it is fixed upon as the initial name of a family. This acceptance of a family named after the foundation cow has naturally led to a higher appreciation of the female side of a pedigree than it deserves. Many instances might be given where the family name on the female side has been continued, although the blood of the original cow has long been lost sight of, through the continued infusion of blood of the many sires in the pedigree having little, if any, relationship to each other or to the founda-

Many seem to lose sight of the fact that length of pedigree may be, and often is, objectionable. If, through a wish to maintain a certain strain of blood, breeders have mated animals with less regard to merit than to a continuation of what is often termed "straight breeding," they intensify defects to an extent which renders length of pedigree objectionable in the highest degree. As can be readily understood, the inherent power of reproduction is strengthened through a lengthened and mistaken system of breeding, and it may take repeated crosses of fresh blood before efforts towards improvement can be realized. If, on the other hand, we turn to a pedigree showing concentration of good blood resulting in a family of good animals, length of pedigree is a decided advantage.

For a number of years past there has been a great and increasing demand for the best specimens of the breed (Shorthorn) for shipment to South America. To such an extent has this demand been carried that the Shorthorn breed is certainly passing through a severe crisis, and it would really look as if the parting with such a large proportion of the best of our sires, which has been going on year by year, must materially affect the standard of excellence of our home herds at no very distant date. While it is impossible to conceive any scheme or system under which the best could be kept for home use, there is certainly some consolation in the fact that the stringent regulations laid down by the Argentine breeders regarding herdbook qualifications in that country may operate to the advantage of home breeders.

EXTEND YOUR PEDIGREES.

It is almost unnecessary to impress upon students of pedigree the importance of analyzing a pedigree before forming an opinion regarding it. To those who have herdbooks available, and who have not extended a pedigree in all its branches, the working out on paper of almost any pedigree is likely to prove a revelation to them; the full breeding of every animal mentioned will be found to be both interesting and instructive.

The tracing out of many of the older families to their foundations entails a certain amount of labor and trouble which only an enthusiast in such matters will be inclined to undertake. For all practical purposes, however, the extension of a pedigree in all its branches to the fifth or sixth generation is all that may be

Looking at the pedigree of Ronald as it is given in the herdbook, many would at once say that his dam was almost straight "Booth," while the extended pedigree shows that it is strongly blended with a "Ruth" family, long and carefully bred by the late Mr. Wm. Trethewy, in Cornwall, who owned a large herd all descended from one cow. In passing, it may be stated that the pedigrees of many of the Windsor herd prizewinners that have been so successful of late years at the Royal and other shows, have been a mixture of "Ruth" and "Cruickshank" blood. On the sire's side of Ronald's pedigree we have the Uppermill Princess Royal and the Sittyton Victoria, Lavender, Nonpareil, Clipper and Violet families blended together. A WARNING TO BREEDERS OF PURE-BRED SHORT-HORNS.

Shorthorns have time and again suffered through certain families becoming fashionable and commanding high prices; and there are at present indications of a repetition of former errors in this direction. Breeders are tempted to retain or purchase animals which under other circumstances they would never think of breeding from. Nor is there any practical means of preventing a repetition of mistakes in this direction, seeing that so long as a strain of blood is fashionable there is assured prospect of profit to breeders who are fortunate owners of such pedigrees. IT, HOWEVER, MAY BE LAID DOWN AS AN AXIOM, THAT AN INFERIOR ANIMAL CANNOT POSSIBLY BE WELL BRED. Some thing must be wrong somewhere, and the FIRST INDI-CATION OF WEAKNESS ought to be viewed as A FINGER-POST POINTING TO REVERSION OF PUB-LIC OPINION REGARDING THE VALUE of such pedi-

grees AT NO DISTANT DATE. There is a saying credited to a well-known breeder and judge, that "an animal ought to carry his pedigree on his back," and many mistakes might be avoided if this saying could be strongly impressed upon the minds of breeders. Past experience has shown the

An Expert's Testimony on "Pedigree." great advantages to be derived through certain strains of blood having been intensified through close breeding conducted by capable breeders. This cannot be gainsaid, and it is equally true that a system of close breeding can be safely pursued so long as care is taken that there is no mating of weaklings. It is to herds bred on these lines that the ordinary breeders must look for sires if they are to breed with any degree of assurance as to results.

As most breeders are aware, it was generally accepted towards the latter end of the past century that Shorthorns belonged to two, and only two, great families. This idea is now exploded, and latterly there has been with general consent much more freedom of action accorded to breeders. Much may now be done in blending the present fashionable strains of blood with those of many of the once highly valuable families, if constitution, form and pedigree receive due considera-

South Devon Sheep.

There are two distinct breeds of longwoolled Devon sheep recognized in Great Britain, namely, the Devon Longwool and the South Devon. Quite a keen contention exists between the breeders of the two as to which is the best. A brief history and description of the Devon Longwool breed was given in the January 19th issue of the "Farmer's Advocate," with a cut of a shearling ram of that breed. We now present an engraving of a South Devon ram lamb, reproduced from a photograph recently received from England.

Breeders of South Devons have shown commendable enterprise by organizing an association and establishing a flockbook on up-to-date lines, the first volume of their flockbook, issued in 1904, showing a list of 154 members, and particulars of the history of 129 recorded flocks, with a number of others waiting for inspection, which is said to be a record unequalled in the starting of a flockbook for a breed in England. A rigorous system of inspection has been instituted, and no South Devon sheep is registered except those having the



South Devon Ram Lamb.

Take, as an example, the pedigree extended to the Society's trade-mark, followed by the owner's fifth generation of the champion bull owned by the King at Park Royal in 1904.

Society's trade-mark, followed by the owner's flock mark, tattooed in its left car by the official tattooer. The editor and secretary is Mr. W. W. Strand, London.

The dates of the foundation of some of the flocks given in the first volume show that they were established early in the last century, some dating from 1836 to 1840, while many have been founded in the last twenty years, and for some it is claimed they were founded fully one hundred

The breed is found principally in the counties of Devon and Cornwall, and is described as one of great robustness of constitution, large, symmetrical, and well grown, with plenty of bone and muscle, vigorous, thrifty, equally adapted to grazing or the fold, a rapid feeder, with early maturity, responding, readily to liberal treatment, and being able also to thrive and to do well on hard fare if needful. The fleece is of a long staple of lustrous wool, curly, dense, and with the head well covered, much resembling the Cotswold in that respect. The head and legs are white, and the ears are often spotted, the main color being

The claims of the breed to early maturity and rapid growth are shown by the results given in the fat stock shows, a pen of wether lambs, exhibited at Smithfield, 1902, showing an average daily gain of 11.46 ozs. per day from birth, while the yearling wethers of the breed gave the highlysatisfactory daily gain of 7.57 ozs.; while a pen of lambs at Smithfield in 1904 showed an average live weight of 244 lbs., and an average daily gain of .86 lbs., being the greatest gain shown by a pen of lambs of any breed exhibited at the

I received the premium wrist bag, and it is very nice. Please accept my thanks for same MRS. M. McLEOD Glengarry Co., Ont.

Shall We Have a Dressed Meat Trade?

To the Editor "Farmer's Advocate"

Sir,-I notice that at the Eastern Ontario Winter Fair, Mr. W. S. Spark, of Canterbury, Eng., discussed the dead-meat trade with Great Britain, and is reported to have said that he considered Canada to be in a very favorable position to build up an excellent business. He contended that killing and refrigerating plants ought to be located at the ports of shipment, and spoke of the comparatively short ten days' sea voyage and the increasing demand for chilled meat in Great Britain as encouraging features of the industry.

Now, sir, in view of the very doubtful profits made by farmers who feed beef cattle for the export trade, do you not think that a movement should be made to have one of these killing and refrigerating plants established at a central point in Western Ontario, at as early a date as possible It would appear that the growing poultry industry, the dairy interests, as well as the beef and bacon producers, would find such a plant, situated, say in Brantford, or other good shipping center, a very great help in realizing profitable prices for their products, and it seems to me that the farmers of Western Ontario, every one of us largely dependent on the too narrow profits of stock-raising, would be vastly benefited by such an establishment in our midst. If the "Farmer's Advocate" can and will take this matter up, and institute the needful proceedings, or even outline these proceedings, so that those interested can work for the establishment of such a plant, it will, in my opinion, have greatly added to its already large "KILLUM AND FREEZUM." list of good works.

Paris Station, Ont. [Note.—This is a good subject for discussion, and we invite letters upon it from our leading feeders, exporters, and those already engaged in the dressed-meat business in Canada. Big establishments, like the Wm. Davies Co., of Toronto, are already branching out, and supplying the local Canadian trade with fresh meat. Is Brantford, Ont., the only or the best place for inaugurating such establishments? What are the prospects for the trade in Great Britain? Does anyone advise Canada to drop the export trade in live cattle and trust to dressed meat only? Are we producing enough good cattle to keep up the supply? Will it pay farmers to produce more? Should not sheep be included in such schemes? There are plenty of good points to be considered in connection with the subject. A frank, concise discussion in the 'Farmer's Advocate' should be illuminating.-Ed.]

Artichokes for Pigs.

A correspondent asked what is artichokes, which was well answered by Mrs. Anna L. Jack, but she omitted some of the uses of them. Artichokes make excellent hog food. Plant them as described in March 2nd issue, and in fall turn in your hogs, and they will harvest them. If you have not hogs enough in the fall to consume them all, the balance will be just as good in spring, as the frost does not injure them a particle. When the hogs are through there will be still enough for seed, which will sprout, of course, all over the ground, then take a scufiler and run rows through. You can thus keep down weeds and be sure of a crop in the fall. Some authorities claim they yield from 500 to 1,200 bushels per acre. I have about onequarter of an acre, and last spring I had 17 hogs in the patch for six weeks. They did well, and are very fond of them. There was plenty of seed left to seed J. R. PHILIP. two acres. Grey Co.

FARM.

Sugar-beet Pulp Feeding.

THIRD-PRIZE ESSAY.

After looking over your valuable journal of a recent date, and seeing your offer on the above subject, I venture to answer your questions, having had an experience of five years in this State of feeding sugar-beet pulp to dairy cows and young cattle. Supplying milk daily for family use in the city, I have had an opportunity of testing its feeding value, but more especially for milch

1st.-When adjacent to factory, or within easy hauling distance, it is better to draw the pulp every day or two, and feed while fresh. It can be put in any convenient place inside, where it will not freeze; if required to be stored for future use, a small silo would answer admirably, and if air-tight the pulp would keep as long as required, to be used as silage.

2nd.-Have fed it to dairy cows twice a day, morning and night, from a half bushel to three-quarters each, according to the size of the animals, mixed with about three quarts corn meal, and to younger cattle in proportion, according to age and size.

3rd.-I have found the pulp mixed with meal to be excellent for milk production, but if fed alone the milk will not be of sufficient quality; for dry stock or fattening cattle it is a succulent feed, which keeps the bowels in a healthy condition, of so much importance in the winter season, keeping the animals sleek and thrifty.

4th.-I do not consider it equal to the best corn ensilage, bulk for bulk, but with the addition of meal, very superior; the sugar having been extracted, it can scarcely be compared with pulped mangolds or turnips. I should estimate its feeding value at about one-third less than these. Dry fodder corn would be excellent to feed in connection with the pulp.

5th.—The precaution necessary in feeding pulp is to watch the state of the bowels, and the feeder's judgment must be used accordingly, as it is of a laxative nature. 6th .- As a stock food, I should consider green pulp

worth a dollar and a half per ton, delivered. Of course, as it is so largely composed of water, the drier it becomes the more in proportion will be its feeding value per ton. I base my estimate on actual experience, and comparison with other foods.

When boiled and mixed with meal, I have found it an excellent feed for pigs, but of little value fed alone Bay Co., Mich.

Securing and Preparing Seed Corn.

By Leonard H. Newman, B.S.A., Seed Division, Ottawa The condition of seed corn throughout the Province of Ontario is, at the present time, such as to cause the gravest apprehension. A great number of personal examinations have been made of seed corn, which the growers, in many cases, wrongly imagine to be capable of producing a strong growth. But this year we must not be deceived. We are all aware of the great loss sustained last year on account of the failure or partial failure of the corn crop. True, the early growth of the corn was very much impeded by climatic and soil conditions, and it was to these conditions that many people attributed the failure of their crops. However, we know for a certainty, and say without hesitation, that hundreds of bushels of seed corn were planted last year which would not have grown under the best of conditions. This spring we are face to face with the same danger, and the question, therefore, is not "what are the causes?" but "what is the remedy?" In reply we give the following suggestions: Begin at once to prepare your seed corn, by selecting the best ears and testing each ear which you intend to plant. This may at first sight appear to be a laborious undertaking, while in reality it is a comparatively simple and easy one to carry out. The method may be outlined as follows: Lay out all the ears to be tested in rows on some planks or on the floor. Then prepare a shallow box of sand, placing on the surface of the sand a cotton cloth ruled off in checker-board manner into squares, having the squares numbered consecutively Remove six kernels from opposite sides of each ear, tak ing one from near the tip, one from near the butt, and one at the center of each side. Place the six kernels of ear No. 1 in square No. 1, and so on, until the ears as arranged have kernels in corresponding squares on the cloth. Place over these kernels another cloth, and spread more sand or earth over the cloth again, and moisten the whole, leaving in a warm place for four or five days. The upper cloth and sand may then be removed, exposing the kernels, which, by this time, should have germinated. In this way you are able to reject those ears from which the kernels which have not grown were taken. When we realize that for every fifteen or twenty ears we reject we are practically saving an acre of corn, the importance of such a system as this will be apparent. Under present conditions, the usual way of testing a number of kernels from several bushels of shelled grain is of little value, since it is practically impossible to secure a representative sample to test. On the other hand, where representative kernels are be used on wagon and disk harrow. A hole is taken from each ear and tested, and are arranged in made in the tongue six inches back of the regular such a way as to enable one to trace back the car from which all kernels were taken, we are in a position to throw out all bad ears, and this is the only way of ensuring a perfect stand of corn, at least as far as the seed is concerned. We would also advise the shelling off of tips and butts of all ears to be planted. While the ordinary tip kernels will germinate more quickly than those from any other part of the ear, and will give an equally strong growth early in life, yet they have not the vitality to produce good strong plants, especially under unfavorable conditions.

Many growers require to buy seed corn for various reasons, and some may object to paying the extra freight which would be incurred where the seed is purchased on the ear. However, if these people will but consider the question for a moment, and realize the great risk they are running in buying in any other way, I have no hesitation in saying that the extra cost for freight will, to them, be too small a factor to be worth considering. Again, the question of time required to test and shell each ear may, by some, be overestimated, Such extra time, however, becomes insignificant when we compare it with the days or even weeks of cultivating which are given to our corn fields, no matter whether the crop is a full one or whether the land is largely a summer-fallow. Let us, therefore, endeavor to have the full number of stalks in every hill, and produce not only "the blade and the ear, but the full corn in the ear."

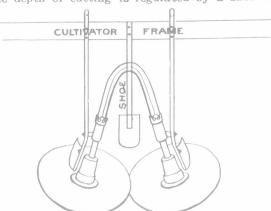
Up Against a Hard Job.

Enclosed find my subscription for 1905. have been waiting in hopes of getting a new subscriber, but that is hard to do, as all enterprising farmers in this part of the country take the Farmer's Advocate." I have taken it for thirty-three years, and would not like to be with-

out it. Wishing you every success. JAMES PEARSON. York, Ont.

A Sugar-beet Topper.

The sugar-beet topper that I used is made by a blacksmith in Tupperville, Kent Co., Ont. is two disks, same as those on a disk harrow, lying almost flat or level on the ground, tilted a trifle up behind, attached to a strong arched frame that is attached to our beet cultivator. on any of the beet cultivators. The friction of the disks on the ground makes them revolve, turning toward each other, and lapping over about one inch, they cut anything in their way. The depth of cutting is regulated by a shoe that



Sugar-beet Topper.

runs on the row of beets just ahead, which regulates the topper almost perfectly. This shoe is set a trifle to one side, which causes the tops to all turn that way, so that the driver can see what he is doing. There was only a limited numwhat he is doing. ber, made last year and placed in different places to see how they would take. I do not know the name of the maker, but it can be had from the Wallaceburg Sugar Co. I send a hand-drawn cut of it that may help to describe it better. E. NEWELL. cost twelve dollars last year. Lambton Co., Ont.

Another Three-horse Evener.

In your paper of March 16th you ask for a three-horse evener. We have used one like cut in that paper for plowing, but for a seeder or



wagon found one like the accompanying plan better, as there is less space between the team and their load. King's Co., N. B.

Three-horse Evener

The sketch shows a three-horse evener that can



one, and a hammer strap with two holes in it (to match the two holes in the tongue) is put on Strap iron is used to connect the two-foot and three-foot eveners. This is one I made for myself, and I find it very satisfactory. W. G. K. Perth Co., Ont.

Better Prices Wanted for Sugar Beets.

We fall in line with the Lambton Co. beet-grower, whose letter appeared in the "Farmer's Advocate" of March 9th, and wonder why the high price of sugar does not affect the price of beets. The cost of production is more now than formerly, when labor was cheaper, and now when the finished product is higher why should not the producer, as well as the manufacturer, share equally in the profits. If we understood the advertisement in the "Farmer's Advocate" of the Berlin factory, they are paying the farmer fifty cents per ton for the pulp, and here our manufacturers are behind the times again. Hoping to hear better offers EQUAL RIGHTS.

Lambton Co.

Wood Ashes as a Clover Fertilizer.

From time to time there have appeared articles and inquiries in the "Farmer's Advocate" in reference to the value of wood ashes as a fertilizer, and I am sorry to say, occasionally there have appeared letters speaking depreciatorily of this excellent and valuable byproduct. For thirteen years I have been a constant buyer of ashes, and during this time I drew on my farm between five and six thousand bushels. Some fifteen years ago, while still under the parental roof, I had my first object lesson on the value of ashes as a fertilizer. We had occasion to rebuild a portion of a The rubbish was piled in small heaps a line fence. short distance over in the field and burned. In this particular field wheat was sown that fall, and from the very first the wheat on the spots where the ashes lay took on a very dark-green color, and could be distinctly seen at a distance to differ from the balance of the field, but the greatest difference was seen next year. Clover was sown on the wheat, and at harvest time the clover on the ash spots was so large the top was cut off by the binder, but the balance of the field showed no such growth, and on these same spots the following year the clover in every instance was lodged, while the remainder of the field was just an ordinary crop. This was an eye-opener to me, and when I came in possession of a farm of my own, I went immediately into the ash business. Living but a short distance from two mills, I secured practically all that was made. My farm is mostly a sandy and gravelly loam, of a rolling or undulating nature, and I may just say here, that I am convinced that there is a more marked difference in the results of an application of ashes on this kind of land than on clay or clay loam. My first experiment on my own farm was on a piece of land I was preparing for potatoes. I applied at the rate of about 150 bushels per acre, which was twice too much. My potatoes were good, but scabby, and I have demonstrated since that ashes applied directly for potatoes will invariably make them scabby, but the next year the ashes got in their good work. I planted the field to beans, and on the potato ground there was the most magnificent crop I ever saw. The beans were followed by wheat, and sown to clover, and the ashes again came to the front. The clover on the potato ground was just as heavy as it could grow, while the balance of the field was only a fair crop, and even to this day the effects of the ashes can be seen on this piece of land. I then made a systematic experiment in my own way, as to how and on which crops I could secure the best results. The trials proved conclusively that clover and beans appreciated a dressing of ashes more than any other crops, with corn, oats and wheat following in order. I believe there is no crop that in the end will give such good returns for a little ashes as clover, and for the last number of years I apply what ashes I get either directly to the clover or on my fall wheat land that I intend to seed to clover, and I may say I prefer the latter plan, because I am almost always sure of a good stand of clover wherever a few ashes are thrown. Many farmers know how hard it is to get a good seeding of clover on high, dry, sandy loam, and the old saying is, Where we can grow clover we can grow anything." say, where we can get ashes we can grow clover. have frequently taken a load of ashes as a test, and

driven through the field in a zigzag fashion, and scattered them off, with the result that the clover always showed a luxuriant growth on these strips of land, and they could easily be distinguished from other parts of the field.

In the year 1897 I had a ten-acre field in wheat; is field had grown None of them were heavy, and some rather light. During this time the field had only 20 loads of barnyard manure. In the fall of '96 and spring of '97 I gave the field a dressing of ashes, and seeded to clover, with the result that I got a fine catch. Next year I had 32 large loads of clover hav off the ten acres. I let the clover grow up again, and in the latter part of August plowed it down and again sowed wheat. In 1899 I threshed off that ten acres 405 bushels of wheat-Dawson's Golden Chaff. I drew it directly from the thresher to the mill, and it tested from 61 to 62} lbs. to the bushel without going through the fanning mill. It may be said this superior crop was largely due to the clover, and perhaps it was, but had it not been for the ashes, I would not have had the clover. I could cite many other instances, but I have said enough.

The only thing I regret is that ashes are getting scarce, the supply of wood is falling off, and coal is taking its place. Where ashes can be secured, my advice to farmers is to use them. Buy every bushel available. They are a lasting fertilizer; the effects can be seen in your clover crops for years. Clover is always thankful for a few ashes. If you think not, take a bushel or two out to some poor spot in your clover field, and see what it will do for you.

Those who have made a study of the clover plant, know that it is a ravenous feeder on potash. The potash supplied, it has the faculty of drawing on the atmosphere for its nitrogen supply, of which it also requires a large amount. Where, then, is there a better financial proposition than this? The clover says supply me with potash, which can be had for about two or three cents per pound, in seven-cent-per-bushel ashes, and I will gather in from the air and store up in your and pretty nearly pound for pound of nitrogen, worth 15 cents per pound, besides adding large quantities of

Where ashes can be had, do not use valuable barnvard manure for the production of clover, and tempt this fact the better.

Kent Co., Ont.

that plant to use your costly and hard-earned nitrogen.

when by the use of cheap potash you can force it to

bring its own nitrogen supply from the air, which it

disputed, and it is unfortunate that we should ever

hear a dissenting voice against their value. The keen,

shrewd Americans have their eyes always open for bar-

gains, and these men are eager and willing to pay the

profits of two or three middlemen, besides freight rates

on our wood ashes, and we look calmly on and let them

slip through our fingers. You can look at any issue

of the Country Gentleman, published at Albany, N.Y.,

and see several advertisements offering Canada un-

leached ashes. This is prima-facie evidence that in

Canada ashes they find an article of superior merit, and

know enough to appreciate it. Let us Canadians hus-

band our resources. If ashes are a valuable article we

want them on our own farms. If Americans can se-

cure a profit in their use at the high price they must

pay for them, Canadians can surely afford to use them

at first cost, and the sooner we arouse ourselves to

Seed Peas Free from Weevil.

Sir,-May I remind your readers of the impor-

tance of insisting on getting from your seedsman

and sowing only such seed peas as have been

fumigated or otherwise treated to kill the pea

weevil. It is many years since the numbers of

ent time. From all I can learn, comparatively

To the Editor "Farmer's Advocate"

treatment before sowing, refusing to buy

peas that have not been

treated, will do a great

deal towards the stamp-

ing out of this enemy

Careful experiments

have shown that peas

that have been attacked

by weevils are reduced

from one-sixth to one-

quarter in weight, and

that only from 15 to

30 per cent. on an aver-

That ashes are an excellent fertilizer is not often

will readily do without any cost to you.

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Some fifl roof, I hes as a ion of a heaps a from the ashes lay be dis alance of ext year. time the

the ash vo mills, farm is g or unat I am

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Plan Before Building.

Those who are contemplating the erection of a new barn should first plan the stables and then build the barn accordingly, for stables can very seldom be made to suit a barn properly,

Since hired labor has become very expensive, stables should be so arranged that the manure can be drawn direct to the field on sleigh or truck and spread. By so doing, a large amount of work may be done in winter which otherwise would have to be done in a more

It is also of importance that chutes should be built in the barn above, so as to allow feed or bedding to come down in every hall, and at the most convenient place. To those who feed roots or ensilage it will pay to instal a feed truck. By this means you feed the ensilage as you go along, and the chop on the return, whereby you can give each animal just what you want. We have used one for eleven years, and find it indispensable. A litter carrier may also be installed to carry the manure outside the door and dump it on sleigh or truck, in which case narrower doors and less space behind cattle is needed.

"Let there be light" should be an outstanding motto, hence there should be plenty of large windows. Ventilation should also be given a prominent place in our plans, for light and fresh air are very essential to the health of the stock. It is a good plan to run chutes up to the ventilators, and by having slides at

w w 48' o w this injurious insect were as small as at the pres-HORSES 76 BOX very few weevils were found in the pea crop last year, and of these exeeedingly small proportions STALL emerged in the autumn. Consequently, if all seed peas are treated before sowing I can see no reason why the pea weevil should not entirely dis-FEED HALL 6 appear this year. Fumigating with bisulphide of carbon is a perfect remedy for this insect, and, besides this other simple remedies are well known. As DRIVEWAY 7 the pea weevil has no other known food plant than the cultivated pea, it has no means of living w90' in wild plants, and, as is well known, seeds of the cultivated pea, if left in the field, do not live over the winter, and produce a volunteer crop the FEED HALL 7 next spring. A combined effort now, on the part of the seedsman, in systematically fumigating all CATTLE 6 6 seed peas before sending them out, and on the of gardeners and farmers in themselves DRIVEWAY 76 SHEEP FEED HALL 56 BOX BOX STALL STALL ROOT CHOP CELLAR HENS PEN SILO IIXII IIXII 14×26 N 93

age of such seeds will grow, and of these very few produce a full crop of seed. A purchaser, therefore, who pays the full price for his seed, plainly pays more than it is worth. I submit, therefore, that no one should water system is in use. sow peas this spring without examining them to see if they contain living weevils, and if these are found the seed should be treated before sowing, either with bisulphide of carbon or by drenching it with coal oil about a week before it is sown, using so, much coal oil that every seed gets a If the quantity of seed on hand is more than a bushel or two, fumigating with bisulphide of carbon will probably be found the simplest treatment. An ordinary coal-oil barrel will hold five bushels (or about 300 lbs.) of seed. This may be treated with three ounces of bisulphide of carbon, by simply pouring this liquid on to the top of the peas when the barrel is full, and then closing up tightly for forty-eight hours, so that the poisonous vapor of the bisulphide of carbon may not escape. The vapor is very inflammable, and, therefore, no light should be brought near the barrel, and the work should be done if possible in an open shed out of doors. The peas are in no way injured by this treatment, either for feeding or for seed, but all contained weevils JAMES FLETCHER. are surely killed. Dominion Entomologist.

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Re Mr. Grisdale's Article.

Received the farmer's knife premium for getting ne new subscriber to the "Farmer's Advocate. Many thanks for the same. I think the article in the 2nd of February issue on stock foods in pork production, given by Mr. J. H. Grisdale, is alone worth a year's subscription to any farmer

or anyone interested in pig-raising Durham Co., Ont. GEORGE WILSON, SR.

I think yours is the most valuable paper pub-J. B. OLIVER lished. Perth Co., Ont.

the bottom of them you can control the temperature. A thermometer will be a good guide in order to keep a good natural drainage, uniform temperature. This is very important where a

Basement Plan of C. W. Baker's Barn.

The accompanying plan represents a bain that was and therefore, is not just as we would build now, as it is rather long for its width. The main part is 90x48 ft., and the shed 45x24 ft. The windows are the twelve pane, 10x8 inches, and we find them none too large. The dotted squares are feed chutes, some of which run almost to the roof, and are connected to the ventilators by wooden pipes. The material for the truck, track and turn-tables cost no more than ten dollars, and we would not like to be without it. The chop and cut feed come down in chutes into the truck, and the ensilage can be shovelled from chute into truck, and the root pulper is also close at hand. If we were building the stables again we would run the platforms upon which the cattle stand at an angle, so as to allow for different lengths of stock. Altogether we are well satisfied with the general plan, and can heartily recommend it for a barn of same C. W. BAKER. dimensions. Simcoe Co., Ont.

P. E. I. Rotation and Seeding Methods.

To the Editor "Farmer's Advocate"

A large percentage of the land of this Island is sandy loam, with about 15 per cent. clay loam, making it well adapted for mixed farming, and necessitating a rotation of crops; also, mixed stock-raising. The preponderating branches are

dairying and hog-raising. We generally use a five-years rotation, commencing with potatoes, corn or roots, or, in other words, a hoed crop, which always receives a liberal dressing of manure. This is followed by a cereal crop, with hay or grass seeds, and manure or fertilizer, and is allowed to give two crops of hay or two years' pasture, to be followed by a crop of grain, and a hoed crop bringing up the rotation. This rotation needs but two plowings in five years, as we don't plow after the hoed

crop, but use the disk harrow, which we find to give better results. We find wheat, oats and barley to produce more grain and straw, when mixed, than any of these grains when sowed separately. Peas don't always do well with us. Wheat, oats and barley are our staple grains. We select the cleanest and most fertile part of our land to grow our seeds, and sow earlier and thinner to produce a larger head, and, consequently, larger grain, which we put through the separators before sowing. We believe that our profits depend largely on good seeds. We also sow the grain thinner when sowing grass or hay seedsabout two bushels of oats and a bushel and a half of wheat or barley to the acre. This allows more air and sunshine, which makes good catch of grass comparatively sure. When sowing seed for pasture or cattle feed, we sow fifteen pounds of timothy, six pounds of early red clover and four pounds of alsike to the acre. We grow clean timothy for our horses, giving about twenty-four pounds of seed to the acre. When not seeding down we sow from two and one-half to three bushels of oats, and two bushels of wheat or barley to the acre. We plow most of our land in the fall, turning a sod five inches deep and nine inches in breadth. Where the land is weedy, we plow about the middle of August, to give us time to cultivate, by giving two or three cuts of a disk harrow, and roll with a heavy roller, thus allowing the sod to decompose and kill seeds and roots. It also leaves the soil in a favorable condition to receive both ammonia and nitric acid from the air and rain. When we plow in the spring, we do it as early as the ground is fit, and give it a cut of a disk harrow at intervals, and leave it for the last sowing. gives time for the soil to heat, making the nitrate already in the soil more available for the young plants.

Treating land in this way makes it possible to select the best season and the most favorable time to sow the seed. It also stirs and foosens the entire soil to a sufficient depth so that the roots of plants may freely extend themselves in In sowing hay seed, we roll after search of food. the grain is well harrowed to break lumps and make an even surface for the grass seeds. then give it one cut of a fine light pin harrow, with steel pins, two inches long, made on purpose for fine surface tillage. There is a large percentage of seeds lost by being put too deep in the ground. NEIL McPHEE.

King's Co., P. E. I.

Seed Grain and Spring Seeding.

SOIL.

The soil of the Township of Hillier (County of Prince Edward, Ont.), in which I reside, is largely of a gravelly clay nature. The gravel is mostly limestone, and is thoroughly incorporated with the clay. This facilitates drainage, and makes a warm early soil. Of course, there are streaks of loamy soil, heavy clays, and in the lower places swampy or beaver meadow soil. I have some of all these classes of soil on my farm. The underlying strata is limestone rock, and in some places it is entirely too near the surface, but where it is two or more feet below the surface soil it makes

VARIETIES OF GRAIN.

There is not very much spring wheat sown here any more. The wheat crop is largely fall wheat, and Dawon's Golden Chaff is popular. Some Turkish Red, Early Clawson and other varieties are also sown. Of the spring wheats, Harrison's Bearded and mixed samples of other varieties are commonest.

At one time barley was the principal crop grown in this vicinity. Our sample was plump and bright in those days, as a rule, and brought good prices in Oswego and Rochester, N.Y. Of late years we are growing it largely for feed, and for this purpose we are not careful to keep it pure. However, Mandscheuri is the principal variety now sown. Only six-rowed barley is grown.

In peas, we have shone in this vicinity, and we are laying out to do it again, after being driven to the wall for a few years by the pea weevil. Last year there was quite an acreage sown to peas, and they were practically weevil free. This spring a large acreage will be sown. Some will sow more or less of the fancy varieties required for the seed trade, but the bulk of the crop will, in all probability, be the common field pea or Golden Vine. They did remarkably well last year. The Runner is another favorite, and so is the Black-eyed Marrowfat. The Canadian Beauty is doing well too.

In oats, the Siberian and Banner varieties are popular. However, there are quite a number of other varieties sown, but many of them are mixed badly.

SELECTING AND CLEANING SEED GRAIN.

Our practice in selecting and cleaning seed grain, is for the most part to grade and clean it with the fanning mill. We are careful to screen out all the small stuff and weed seeds, and sow only the plumpest and best grain. Some farmers are more particular than others on this point. I am satisfied that we can greatly improve our methods in this direction. When the grain "runs out" we are in the practice of sending away for something new, or what we assume is better than what we have. I believe if some few of our farmers on our cleanest land would grow our seed grain for us, using the most up-to-date methods of hand-selection, etc., it would mean greatly increased crops of better quality to all those who would patronize such enterprising men, by paying them a suitable price for their greater skill and labor.

Of course, the company peas and beans which are sown are all carefully hand-picked. Quite a number of us (yet we are only a small percentage) are treating more or less of our seed grain with formaldehyde or copper sulphate solutions, to kill smut and safeguard the crop against the same.

QUANTITY OF SEED SOWN PER ACRE.

The quantity of spring wheat we sow per acre is about one bushel, where drilled; of barley, 1½ to 1½ bushels; of oats, 1½ to 2 bushels; of peas, 1½ to 3 bushels, according to the size of the variety. When these grains are broadcasted, about one peck more seed is sown. We have to be guided by the sample of seed we are sowing and the strength of the soil. I find that on thin poor soils more seed is required than on rich productive soils where the grain will tiller better.

When seeding down, a great many do not make any change in quantity of seed sown. Quite a number of us consider it better to sow at least a peck of the nurse crop less per acre, in order to secure strong grass plants.

SOWING MIXED GRAINS.

The sowing of more or less mixed grains is becoming deservedly popular with those who have tried it. I have sown mixtures for soiling for hay, and for the grain yield. I believe I get much larger yields of grain per acre, and it is usually much better mixed for grinding than when grains are mixed in the hopper. The mixtures I have tried are: Oats and wheat, 1 peck of wheat and 1½ bushels oats per acre; oats and peas, ½ bushel peas to 1½ of oats; oats, peas and barley, 1 bushel oats, ½ bushel peas, and 1 bushel of barley; and oats and barley, about 1 to 1. The mixtures with peas in I sow 2 bushels per acre; those without peas, 1½ to 1½ bushels per acre. When cut and cured for hay it makes excellent feed for dairy stock.

PREPARATION OF THE LAND.

On fall-plowed land we usually harrow first, then cultivate twice with spring-tooth, or with spring-tooth once and disk once, especially if on fall-plowed sod; then seed, harrow and roll immediately, or roll after grain is up. If the land is a little lumpy, as it sometimes is when hard, we use the roller before seeding as well, to pulverize the lumps.

Where the ground is spring plowed, unless it is plowed very early, I follow the plow closely with the harrow, to prevent the soil baking and to keep it from getting lumpy. I spring-plow shallow, about four inches, and if the soil is loose and a little dry. I follow the harrow with the roller, or harrow it two or three times, in order to get a firm seed-bed; then I follow with the seeder and another stroke of the harrow. If the ground is pretty dry I roll, if not I roll after the grain is up three or four inches. Where grass seeds are sown on either spring or fall plowed land, I roll right away after the seed is sown, if the ground is sufficiently dry to prevent over-packing and subsequent baking of the soil.

What I aim at is a firm, compact and fine seed-bed, at any cost. Firm below, fine on top to the depth of two or three inches, and compact enough that the soil will press closely around the seed.

METHODS OF SOWING.

I drill in most of my grain if the seed-bed is right However, some of the early-sown grain I broadcast, and where I put in wet pieces sometimes I broadcast barley and oats, but I almost always drill in wheat and peas. Occasionally I plow in the peas shallow after broadcasting by hand. Where oats and barley are broadcasted they don't seem to smut so badly; they come up quickly and ripen evener. If I drill them in I try to drill shallow. But peas I want in deep, as they are a larger seed, and if put in shallow many of them often wash out on the surface. In drilling wheat I aim not to get it in deeper than two inches. I always or nearly always follow the seeding with a light seed harrow, to level the ground and fine the surface soil to make a dust blanket for conserving the soil moisture. The condition of the soil is my guide for following with the roller immediately, or leaving it to be done after the grain is up. The conditions where I prefer to roll immediately are on a loose, dry soil, and after seeding down with grass seeds.

SEEDING WITH CLOVER AND GRASSES.

Red clover is our standard clover. We sow according to the richness of the soil and the quality of the seed, from 4 lbs. to 10 lbs. per acre when sown alone. If timothy is sown with the clover, 4 lbs. of it is used and sometimes to this is added 2 lbs. of alsike. Mr. Rennie's mixture of 8 lbs. clover, 4 lbs. timothy, and 2 lbs. alsike we find is a good mixture. On my low lands I sow alsike, 2 lbs.; timothy, 4 lbs., and red top. 2 or 3 lbs. Alfalfa I sow by itself, or with a very sparing nurse-crop of ½ bushel of oats or barley and 20 lbs. of seed per acre.

My practice in sowing the grass seed with the seeder is to let it fall in front of the drill hoes, and follow with harrow and roller. If broadcasting with seeder I let the seed fall behind the cultivator teeth, harrow in and follow with roller. I prefer to sow the grass seeds with barley as a nurse-crop, but I also seed with oats and wheat, especially with fall wheat. In seeding with fall wheat, I sow the timothy seed in the fall with the

wheat, and early in the spring, on the ground honey-combed by frost, I sow the clover seed, and allow it to simply settle in the soil.

T. G. RAYNOR.

Prince Edward Co., Ont.

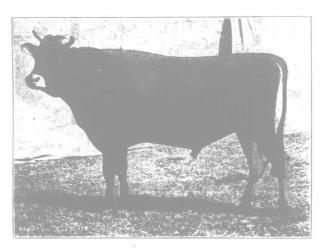
DAIRY.

P. E. Island Dairy Association Annual Meeting.

The P. E. Island Dairymen's Association held their annual meeting on the 9th of March. The attendance was not large, as the railroad was still blocked with snow. The report of the Provincial Inspector, F. E. Morrow, showed that the fifty factories in his jurisdiction were, with one or two exceptions, kept in clean sanitary condition, and that the cheese were well made and neatly finished, but in some factories were a little off in flavor; 1904 has been the poorest dairy season experienced here since 1892, when co-operative dairying There has been a falling off this last season of 10,782,000 lbs. of butter and cheese, and a falling off in value of \$134,876. In 1903 the product of the cheese factories amounted to 29,862,545 pounds, and in 1904 it was 9,698,436 pounds less. The product of the butter factories was 1,084,181 pounds less this last season than in 1903. The decrease in the value of cheese in 1904 was \$121,148, and the butter output decreased in value, compared with last year's figures, \$13,680.76. This is a serious falling off in our some what small dairy business, but it is largely caused by the severe drouth of last summer, which was the worst ever experienced here. The extreme scarcity of feed this winter has very much lessened our winter make of butter. This scarcity of feed has had the effect of reducing the dairy herds, as well as other stock, and it will take some years for our dairy business to recover from the effects of it.

Hon. S. E. Reid, our new Commissioner of Agriculture, spoke strongly in favor of sticking to dairying and improving our herds, and raising the quality of our butter.

Professor Readey, Secretary of Agriculture, read an instructive paper, entitled, "Some points necessary in the care of a dairy heid." One of his strong points was cleanliness in the dairy stable, to guard against



English-bred Jersey Bull.

A Prizewinner at many Shows.

taints in the milk, and, another, kindness to the animals, which always paid in dollars and cents.

R. E. Spillet, of Dillon & Spillet, our largest ex-

R. E. Spillet, of Dillon & Spillet, our largest exporters of dairy produce, prepared a paper which was read by the Secretary, in which he discussed the quality of our cheese. Mr. Spillet gave, as his opinion, that it was as good as any in Canada; said dairymen should not be discouraged by a bad year now and then, but should stay by the business, and study to produce more cheaply, by having better cows better fed.

The total value of butter and cheese produced at the factories in season of 1904 was \$259,174. Dairying has fallen off very materially since four or five years ago, when our output of dairy produce was up near the half-million mark. Better prices for beef cattle, horses and hogs during recent years have all contributed to this result. Many farmers still sell a large per centage of the grain they produce, and the horses, pags and beef cattle get most of the rest of it. The dairy cow with many is the last animal to be considered in feeding out grain rations in winter. Many have yet to learn—some have already found it out—that the dairy cow will return as good or better price for grain, judiciously fed, as any animal on the farm.

Western Ontario Dairy Instruction.

The directors of the Western Ontario Dairy men's Association, having received assurances from the Provincial Minister of Agriculture that the necessary funds would be provided, have increased their staff of instructors to ten men for this season. The names of nine instructors, seven for cheese and two for butter factories, were given in the "Farmer's Advocate" for March 9th. The tenth man. Mr. E. N. Hart, who has now been selected, will give instructions at both cheese factories and creameries in the Kincardine district. He has been for four years the efficient

manager of the Strathroy Cheese and Butter Company. There are over two hundred factories in the Western Ontario district, and about one hundred and seventy of these last year availed themselves of the services of the Association instructors. In order to bring instruction within the reach of all factories, small and large, the fees are this year arranged upon a sliding scale. For factories making under fifty tons of cheese, the fee for the season will be \$9.00; from fifty to one hundred tons, \$12.00; and for over one hundred tons,

Scale of Points for Jerseys.

Adopted by the American Jersey Cattle Club, May

bones to rump bones

E, hip bones high and wide apart; loins broad and strong

F, thighs flat and well cut out

Tail, thin, long, with good switch, not coarse at setting on
Udder: A, large size and not fleshy

B, broad, level or spherical, not deeply cut be-

tween teats
C, fore udder full and well rounded, running well forward of front teats

D, rear udder well rounded, and well out and up behind

Teats of good and uniform length and size, regularly and squarely placed

FOR BULLS.

arched flank
G, legs proportionate to size and of fine quality, well apart, and not to weave or cross in walking
Rudimentary teats, well placed

Tail, thin, long, with good switch, not coarse at setting on

Size, mature bulls, 1,200 to 1,500 pounds

General appearance, thoroughly masculine in character, with a harmonious blending of the parts to each other; thoroughly robust, and such an animal as in a herd of wild cattle would likely become master of the herd by the law of natural

Perfection ______1

Cheese Factory and Patron.

A number of cheese factories are operated in this vicinity for the manufacture of milk for the public. Recently, the manufacturers have agreed among themselves that no one of them shall receive for manufacture milk brought to him by a patron of any other factory, under penalty of \$50 for each offence. (1) Can manufacturers refuse to accept milk from said patron? (2) Is this contrary to the letter and spirit of British law? (3) Is there any redress for patrons, or are the factorers forced to how to the will of the manufacturers?

Ans -1 Yes. 2 No. 3. We do not see that under the circumstances the patron of one factory can legally compel other factories to take milk from him

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A Few Needs of the Dairy Business.

In a farewell letter to the American dairy press, Prof. J. W. Hart, who resigned his position as Superintendent of the Eastern Dairy School, Kingston, Ont., in 1903, to enter the Department of Dairy Husbandry, Urbana, Ill., which he now leaves to take up work in the San Paulo, Brazil, Experiment Station, offers these few reflections upon Illinois Dairy conditions. They are equally applicable in Canada.

"Every intelligent man or woman who has given the subject any study must recognize that the greatest cause of inferior dairy products which entails loss on the producer and injury to the consumer is filth in the milk, and that nine-tenths of this filth, with its attendant train of evils, could be kept out without any additional expense on the part of the producer. If the dairymen will only handle the milk with the same care that common decency demands with regard to other foods, the problem is solved, and they will be richly repaid, not only in pocket, but in the increased health and vigor of all who depend for a part of their sustenance upon dairy products in any form. Although the majority of dairymen want to do what is right, it is unfortunate that there are engaged in the dairy business a few who are no cleaner in their methods than they are compelled to be and who cannot be trusted. If nothing else can be done, the public health demands that they be retired on pension.

"Dairymen must, if they succeed, not only produce superior goods, but must practise modern business methods, and place their products upon the market in an attractive condition. It is possible, and always more satisfactory, to get better prices through increased consumption rather than by a reduction of the supply. There is no other business where the results of co-operation have been so far-reaching as in the dairy business, and the revival and extension of the co-operative spirit among dairymen would be of decided benefit to all. All this, and more, is possible if all the different agencies and individuals interested will work together with this one great object in view-improvement in the quality of dairy products."

The Milking Machine.

To the Editor "Farmer's Advocate"

Sir,-Replying to yours of the 20th, would say that in the month of February last I visited three farms in Little Falls, N. Y., where they are using a milking machine manufactured by D. H. Burrell & Co., of Little Falls. This machine is a modification of the "Lawrence-Kennedy" milking machine. The farmers are well pleased with the work of this machine, and, so far as I can see, I consider it quite practicable. It will milk from eight to ten cows at once, and on one farm one man was milking from thirty-two to thirty six cows, night and morning, and doing this work in about an hour and a half. They say they are able to dispense with the help of one man since the introduction of the milking machine. We hope to have one of these machines installed in the dairy department of the College in the near future, although the manufacturers have not yet placed them on the market, but they hope to be able to do so in the very near future. We are also trying to get a Canadian firm to take up the downy appearance presented by the under surface of the manufacture of the machine in Canada. I have affected leaves, upon which the spores for its propagagreat faith in the future of the milking machine tion are produced. The fruit affected by this turns a and its possibilities of lessening the labor in connection with the keeping of cows. H. H. DEAN. (). A. C. Dairy School.

Do Your Cows Pay?

1. What is your favorite breed or grade of

dairy cows? Give reasons.

2. Do you make the milk into butter on the farm, send to a cheese, butter or condensing-milk factory, sell whole milk or cream?

3. If possible, send us figures telling what cash returns per cow you received last year from the milk of your herd?

4. Can you show the profit derived per cow during the year, by deducting cost of feeding and 5. Do you keep a record of what your cows

produce in pounds of milk, and do you test it for butter-fat? What is your system, and what are its advantages? 6. What is the best plan to get a profitable

dairy cow? [Concise answers to the above questions can be put in a few hundred words, and we request our dairy readers to send their replies in by the earliest mail convenient. In case you are not in a position to fully answer some of the questions, omit these and deal with the others.]

A Welcome Visitor.

Enclosed find \$1.50 for our renewal for the highly appreciate the worth of the paper. It is a welcome visitor to our home HOWARD GARDNER. Middlesex, Ont.

Licensing with a Vengeance.

In Victoria, Australia, a bill has been drafted which provides for a thorough inspection of all creameries, cheese factories, milk, stores and farms where milk is produced, so that "any person offering for sale or selling milk, cream, butter or cheese without a license, or offering for sale the milk or cream of any other person without a license, and any company or person engaging in manufacture, mixing, packing or storing of butter or cheese for sale without a license, shall be guilty of an

offence, and be liable to a penalty not exceeding \$25." The farmer's license fee is made proportionate to the number of cows kept; and must, of a necessity, be very small for two or three cows, and it will certainly cost a good deal to collect it.

It remains to be seen whether this bill becomes a law or not, and if it does, how it may be practically enforced .-- [Exchange.

GARDEN AND ORCHARD.

Fighting Fungi and Insects in Niagara District.

The grand final meeting of the week among the fruitgrowers of the Niagara district was held at St. Catharines, and was attended with great enthusiasm. Hearty votes of thanks were given Mr. H. L. Brown, of Dela ware, U.S.; Prof. Lochhead, of the Agricultural College, who had spoken on fungi and insects at the first three meetings; and to W. T. Macoun, of Ottawa, who had treated of these subjects at the last three meet-

BLACK ROT OF THE GRAPE.

At St. Catharines Mr. Macoun confined his remarks to the diseases of the grape, especially to the black rot which has recently appeared in this district, and which most seriously threatens the grape industry of the whole Province. Mr. Macoun pointed out the importance of checking this disease at the outset, because when once established in our vineyards it is most difficult to eradicate.

The black rot is a fungus which feeds upon its plant host, spreading by means of microscopic spores, which are thrown off into the air. During winter these spores nest in old mummy grapes, old leaves, grape wood, etc., and are ready to germinate with the young growth of spring. The germination of these spores may be prevented by spraying very early in the season, so as to keep them from entering the texture of the leaf. Bordeaux is the remedy, and is effective if faithfully and persistently applied.

The first spraying may be made just before the flowers open. This is economical of time, because it covers the leaves and thus secures them from infection.

The second spraying should be made just as soon as the flowers fall and the young fruit is set; and then the operation should be repeated every ten days or so until August 1st. The object is to keep leaves and fruit so covered with Bordeaux that the spores can find no place of entrance. It is advisable to take out and burn all diseased bunches of grapes hanging on the vines at pruning time, and to burn all prunings.

THE BROWN ROT.

Mr. Macoun briefly touched upon the brown rot of the grape, which has so seriously defoliated the vineyards of the Niagara district, and which is the result yellowish brown, and remains pulpy, without drying up, as in the case of the black rot. This fungus is also prevented by the Bordeaux.

THE POWDERY MILDEW.

This fungus has long been known in our vineyards. It coats the whole surface of the grape, and soon spoils the whole bunch. This is easily prevented by dusting the vines with dry powdered sulphur; but since the Bordeaux is destructive to the other fungi as well, it is the most desirable remedy for powdery mildew also.

POWER SPRAYERS.

Mr. Brown, in his final address at St. Catharines, favored the use of the power sprayer in the large orchard. The old hand pump is too laborious, too slow, and does not afford sufficient power to make a fine spray. We have got beyond the days of sprinkling trees; now we want to spray with a fog-like mist that will reach every part of the surface of the tree. In this way we can cover a larger surface at a time, and make one barrel of material go as far as two in the old way. To produce such a fog-like spray, a constant pressure of from 80 to 100 pounds per square inch is necessary, which is easily maintained with a power sprayer, while with the hand pump and only two nozzles one cannot average over fifty pounds pressure, and with four nozzles not over thirty or forty pounds. There are several excellent power sprayers in the market.

SELL FRUIT FOR CASH.

Mr. L. Woolverton addressed the growers at Beamsville on co-operation in the growing and sale of fruit. Farmer's Advocate and Home Magazine." We He advised the fruit-growers in each section to plant and top-graft enough of certain desirable varieties of apples or pears to make car lots of a kind for export. In home markets he condemned the present practice of

selling on commission as ruinous to prices, and standing in the way of selling by contract.

Mr. Brown said that in Delaware the best market was the home cash market. The grower had done his part when he grew and packed good fruit and brought it to the railway station. In Delaware the cash buyers from the cities were on hand at every station; they soon found out where the best fruit was to be had, and were ready to pay the very highest price for such goods. Here in Canada growers are better situated than in Delaware; only a narrow fruit belt and a great market to the north, and the buyers should be encouraged to come to the grower and pay him most remunerative prices.

Formulas of Some Standard Spray Mixtures.

This article and the accompanying spray calendar have been especially prepared as a season's guide for the farmer and orchardist. The spraying calendar is taken from the catalogue of the Spramotor Co., of London, Ont.-Manager, W. H. Heard, recognized as a thoroughly practical orchardist and a reliable, well-posted authority on spraying. If you do not keep the paper filed, cut this leaf out and keep it throughout the season for a reference.

BORDEAUX MIXTURE.

Copper sulphate	5 pounds.
Quicklime	5 pounds.
Water, Imperial gallons	40 to 50.

To destroy leaf-eating insects, add four ounces of Paris green. For peach, use only three pounds each of copper sulphate and lime, and three ounces of Paris green, on account of the tenderness of the foliage.

To prepare, dissolve in a coal oil barrel, part full of hot water, five pounds of copper sulphate (bluestone), by suspending, immersed, in a cotton bag or basket. In another vessel slack five pounds of fresh lime with as many gallons of water. If the lime when slacked is lumpy, it should be strained through a fine sieve or coarse sacking. Nearly fill the barrel containing the sulphate solution with water, add the lime water, agitate, and it is ready for use. Use good lime, and slack carefully. When a large amount is to be needed, make separate stock solutions of lime and bluestone, to be diluted as needed. Dissolve 100 pounds of copper sulphate in 40 gallons of water; two gallons of the solution will thus contain five pounds of the bluestone. In another barrel slack 100 pounds of fresh lime, and make a milk by adding 40 gallons of water. When well stirred two gallons will contain five pounds of lime. To make a barrel of Bordeaux mixture, take two gallons of the stock solution of copper sulphate, partly fill the barrel with water, and add two gallons of the milk of lime; if the lime is of good quality it will be sufficient to neutralize it completely. If the lime is airslacked or impure, the right quantity can be ascertained by applying the ferro-cyanide of potassium test. A two-ounce bottle containing a saturated solution of ferro-cyanide of potassium (yellow prussiate of potash) added to the mixture will turn brown. Add the milk of lime till the drop of ferro-cyanide of potassium remains colorless, then add a little more milk of lime to make sure that the strength is uniform, and fill the barrel with water.

It is desirable to dilute both the lime and sulphate before mixing, and especially important that the sulphate be poured into the lime, and not the lime into the sulphate.

COPPER SULPHATE SOLUTION

Conner	sulphate		pound.
W	Garpas	 25	gallons.
Water .			

This should be used only before the foliage appears. lt is easily applied, and acts as a general germicide and disinfectant. In simple solution copper sulphate is very injurious to foliage. When lime is added, as in making Bordeaux mixture, its corrosive action is neutralized and injury to the foliage prevented. In this way a larger quantity of bluestone may be used, and it adheres to the foliage better by the agency of the lime.

AMMONIACAL COPPER CARBONATE.

Copper carbonate		ounces.
Ammonie	 2	quarts.
Water	 50	gallons.

The copper carbonate is best dissolved in large bottles, where it will keep indefinitely, as it should be diluted with water as required. For the same purpose as Bordeaux.

LIME, SALT AND SULPHUR.

		pounds.
Sulphur	15	pounds.
	10	pounds.
Salt	01	mirture.
Hot water enough to make 30 gallons	OI	IIIIA COLO.

The proportions of this mixture may be varied to almost any extent. Salt may be omitted, but is considered useful in making the mixture more adhesive. To prepare, place half of the water in a large kettle, add the salt and sulphur, bring the water to a boil, throw in the lime, adding hot water from another kettle to prevent burning; boil two or three hours, increase the quantity to 30 gallons with hot water, and apply while hot. Though not mentioned in our spray calendar, the lime-salt-sulphur mixture is highly recommended for scale insects, notably San Jose scale. It is also a

fungicide of considerable efficacy, and an application to fruit trees in early spring is advised.

LIME,	SUL	PHUR	AND	CAUSTIC	S	ODA.
Lime					30	pounds.
Sulphur	flower	·)			15	pounds.
Caustic	soda			4 to	6	pounds.
Water				······································	1	barrel.

In preparing the wash the lime is started to slack with six gallons of water, and while slacking, the sulphur, which has just previously been made into a thin paste with hot water, is added and thoroughly mixed in with the slacking lime. To prolong the boiling of the wash the caustic soda is then added with water as needed, and the whole mixture is kept thoroughly stirred. As soon as the chemical action has ceased, the required amount of water is added, when the mixture is ready for use.

LIME,	SULPHUR	AND	SAL	SOD	A WASH.
Lime					25 pounds.
Sulphur	(flower)				20 pounds.
Sal soda					121 pounds.
WW. A					1 harral

Put five or six gallons of hot water in a wooden barrel, add the lime, quickly following with the sulphur and sal soda, and stir until the slaking is practically completed. It may be necessary to add a little cold water at intervals to keep the mixture from boiling over. After the violent action has ceased, cover the barrel to retain the heat and allow it to stand 15 or $30\ minutes,$ dilute to the full quantity and apply.

PARIS GREEN.

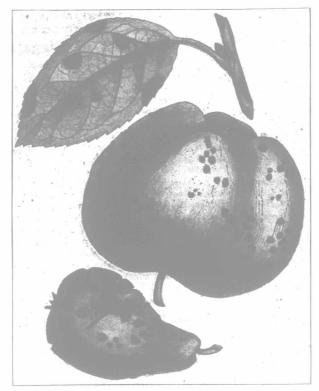
For Fruit.
green 4 ounces.
For Potatoes.
green 6 to 8 ounces. 46 to 50 gallons.

Test of Paris Green.—Put a small quantity into some common ammonia or hartshorn. If it be good the Paris green will all dissolve, leaving no sediment; if not, there will be more or less sediment remaining. It is always well to apply this test before treating a large area, as but a few minutes are required to make the test, and much valuable time may be saved, for

Paris green is not always true to name. If this mixture is to be used on peach trees, one pound quicklime should be added. Repeated applications will injure most foliage unless lime is added. Paris green and Bordeaux can be applied together with perfect safety. The action of neither is weakened, and the Paris green loses all caustic properties. For insects which chew.

HELLEBORE,		
Fresh white hellebore		
KEROSENE EMULSION.		
Hard soap	1	pound.

Kerosene Dissolve the soap in hot water; add the kerosene and churn with a pump, by directing the nozzle into the solution for five or ten minutes, until it emulsifies (or becomes of a thick, creamy consistency). This is the stock emulsion, and will remain in this state undefinitely. It must be diluted with water, according to directions, from four times for San Jose scale when the leaves are off, to twenty times for aphis. For insects that suck, cabbage worms and all insects that have soft bodies.



Apple and Pear Scab.

Scab on Apple and Pear.

Although the fungi (Fusicladium dendriticum and F pirinum) causing scab on apples and pears, respectively, are different species, they are very closely allied, and as the general appearance of the disease and the methods of treatment are alike in each case, separate descriptions are not necessary. Every orchardist and consumer knows the outward appearance of scab on the fruit. It is not, however, so generally known that it attacks the leaves and young shoots. Like all fungi, scab consists of a threadlike growth just beneath the surface of the leaf, twig or fruit; from this myriads of minute short stems are thrown out through the surface, bearing the spores. On the leaves and young shoots the fungus forms minute velvety dark-colored patches when the spores are ripe. It has been thought that fruit is infected through the agency of wind and rain, which washes the spores onto the fruit. If the apple is nearly full-grown before it is affected, the spots formed by the fungus remain small and are irregularly scattered over the surface. If infection occurs when quite young, growth is checked, the surface becomes more or less covered with scabs of various sizes, and at a later stage is irregularly cracked. It is believed that infection of fruit takes place to a great extent when quite young, before its weight causes it to turn over; thus much of the spot is frequently found on the blossom end. An immense quantity so affected drops while quite small, the cause being often wrongly attributed. Faithful spraying with Bordeaux is an almost complete preventive. In badly-infested orchards an early spring application of copper sulphate solution (without lime) will be more efficacious than Bordeaux. This solution must not be used after the buds begin to swell. In ordinary cases Bordeaux is advised for the first spraying. It should be applied first just before the buds begin to swell, again just before they open, and immediately after the petals fall. This latter is very important, as a delay of two or three days at this time, especially if the weather is damp or murky, may permit wholesale infection to occur. After this, spraying with Bordeaux at intervals of a week to ten days should be done regularly.

The fungus tides over the winter in diseased leaves and fruit, as well as in twigs, and spores may be produced after the leaves or fruit ave fallen. A remarkable instance was cited in a convention of the Entomological Society of Ontario, and alluded to in the 1902 annual report. A shipment of apples, slightly affected with scab, had been carefully packed in the usual way, and consigned to the Old Country. Being delayed a few weeks in transit, a few samples were taken at the ocean port, and it was found that the warm hold of the vessel had so favored the development of the fungus, that much of the fruit was seamed with deep

Spraying Calendar.

			J.118 Ca.1011			
Plant.	1st Application,	2ND APPLICATION.	3RD APPLICATION.	4TH APPLICATION.	5TH APPLICATION.	6TH APPLICATION.
Apple Scab, codling moth, bud moth.	When buds are swelling, Bordeaux, copper sul- phate solution and Ar- senites.	open, Berdeaux. For	When blossoms have fallen, Bordeaux and Arsenites.	10-14 days later, Bordeau x and Arsenites.	10-14 days later, Bordeaux and Arsenites.	10-14 days later, Bordeaux and Arsenites.
Cabbage and Cauliflower	When worms or aphis are first seen, Kerosene emulsion.	7-10 days later, if not head-	7-10 days later, if heading, hot water (130° F.) or Hellebore.	Repeat third in 10-14 days if necessary.		
Celery Leaf blight, rust.	bonate at first appearance of disease.					
Rot, aphis, slug.		deaux. If slugs appear,	10-14 days, if rot appears, Ammoniacal copper car- bonate.			
Currant Mildew, worms.	At first sign of worms, Arsenites or Bor- deaux	If leaves mildew, Bor- deaux.	bore.	apply Bordeaux freely.		
Gooseberry Mildew, worms.	worms as above.	deaux. For worms as above.	bonate. For worms as	third.		
Grape Fungous diseases and flea-beetle.		When leaves are 1-7½ inches in diameter, Bordeaux. Paris green for larvæ of flea-beetle.	en, Bordeaux, Paris	10-14 days later, Bor- deaux.	10-14 days later, if any disease appears, Bor- deaux.	copper carbonate. Make later applications of this
Nursery Stock Fungous diseases.			10-14 days, repeat first.	10 14 days, repeat first.	10-14 days, repeat first.	if necessary. 10-14 days, repeat first.
Peach, Nectarine, Apricot	Before buds swell, copper sulphate solution.	deaux.	peat first.		bonate	
Pear Leaf blight, scab, psylla, codling moth.	As buds are swelling, coppersulphatesolution or Bordeaux.	open, Bordeaux; Kero-	senites; Kerosene emul-	8 12 days later repeat third.	10-14 days later, Bor- deaux, Kerosene emul- sion applied forcibly for psylla.	10-14 days later, repeat fifth, if necessary.
r ungous diseases, curcuno.	Bordeaux for black knot. When leaves are off in the fall, Kerosene emulsion for plum scale.	When buds are swelling, Bordeaux for black knot and other fungous dis- eases. During mid- winter, Kerosene emul- sion for plum scale.	When blossoms have fallen, Bordeaux. Begin to jar trees for curculio before buds start in spring. Kerosene emulsion for plum scale.	curculio every 2 4 days. For San Jose scale, Kerosene emulsion when young appear in spring and summer.	10-20 days later, Bordeaux for black knot. Jartrees for curculio. When young plum scale in- sects first apper in summer, Kerosene	for black knot. Later applications may be necessary to prevent leaf spot and fruit rot, use Ammoniacal copper
Scab, blight, beetles.	tion (2 ozs. to 16 gals. of	Bordeaux. With	Arsenites for beetles if	10-15 days later, repeat third.	10-15 days later, Bordeaux if necessary.	carbonate.
Quince. Leaf and fruit spot. Raspberry, Blackberry, Dewberry Anthracnose, rust.	When blossom buds appear, Bordeaux. Before buds break, copper	During summer, if rust appears on the leaves,	10-20 days later, Bor- deaux. Repeat second if neces-	deaux.	10-20 days later, Bor- deaux.	
Mildew, black spot, red spider, aphis	For mildew, keep heat ing pipes painted with equal parts of lime and sulphur mixed with water to form a thin yearte.	plants once a week with Ammoniacal copper carbonate, using fine spray.	plants twice a week with Kerosene emul- sion. Apply to under- side of foliage.	For aphis, spray affected parts with Kerosene emulsion when neces- sary.		Kerosene emulsion must be used very dilute, as rose foliage is easily in- jured by it.
rust.	When growth begins in spring, Bordeaux.	ting, indicate t	As first fruits are ripening, Ammoniacal copper carbonate.	When last fruits are hard vested, Bordeaux.	Repeat third if foliage rusts.	Repeat third if necessary.
Rot, blight.	As soon as disease is dis- covered, Bordeaux or a clear fungicide.	7-10 days.				
Bean	Bordeaux, when first true I leaf has expanded.	Repeat at short intervals	o keep the foliage cove	red by the mixture.		

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rdeaux Later Later ay be prevent uit rot, copper

n must ute, as sily in-

serious. In this way it affects succeeding crops adversely, even in seasons when it is not much in evi-In some seasons scab is much more prevalent, according as weather conditions are favorable or un-Cold, wet weather is the atmospheric condition in which it revels. Regular employment of preventive measures is necessary to cope with the disease. These consist of destroying, or, at least, burying, all fallen fruit and leaves, and prompt, regular attention to spraying, to

protect fruit and foliage. The Codling-moth Parasite.

To the Editor "Farmer's Advocate"

Sir,-You wrote me on February 11th for some reliable data re the codling moth parasite, which was introduced into the Santa Cruz Valley, California, by Mr. A. M. Ehrhorn, Deputy Commissioner of Horticulture. I wrote to Mr. Ehrhorn regarding the matter and the following is his

intercepted the returns from the Gld Country would

certainly have led the shipper to think he was being de-

but its effects on the general vigor of the tree are very

Not only does scab affect the season's crop of fruit,

reply:
"Your letter of March 2nd came to hand. I will say that we have a parasite of the codling moth, and some have been liberated in various sections of California, and we are breeding them I am unable to give you much information with regard to the parasite, as time has been too short to make any extensive observations, but this very insect keeps the codling moth in check in Europe, and we are in hopes it will do the same for us in California. Time only will determine whether or not the parasite will do the work .- A. M. Ehrhorn.'

You will observe from this communication that the problem is not yet solved. The experiment is an important one, however, and is well worthy of a trial, and it is to be hoped that success will attend Mr. Ehrhorn's efforts, for the losses due to the codling moth run up into the millions for Canada and the United States every year. will not be able to determine the real value of this parasite for a few years, consequently our horticultural friends will have to wait in expectant silence for some time before authoritative W. LOCHHEAD. results can be obtained.

Ontario Agricultural College.

As Others See Us.

Mr. John Donaldson, of Annandale Farm, Port Williams, N.S., has been attending Institute meetings in Ontario for the last six weeks. He expresses himself as somewhat surprised at the neglect that is shown orchards in Lambton, Middlesex, Kent, Essex, Oxford, and Huron. He also condemns very severely the ordinary Ontario methods of selling apples. He concludes by saying: "I consider that what might be made one of the most valuable industries of the country will be entirely wiped out unless prompt measures are taken to improve the care of the orchards and the methods of disposing of the product."

FOULTRY.

Champions the Rhode Island Reds.

The "Farmer's Advocate" for March 2nd reached us duly, and, as usual, was eagerly read, for we consider it the best Canadian paper printed for farmers, and suits us better than higher-priced American publications. One thing surprised as well as amused me, however, and that is the answer to the "Subscriber's" enquiry regarding Rhode Island Reds (page 315). I will not make any comment on the description, though a person would have a very poor idea of their beauty from it, but the quotation was the surprising part to be applied to the Reds. N. D. Aldrich, Fall River, Mass., in his article in the Rhode Island Club book, says, in part The utility-poultry farmer of that section of Rhode Island known as Little Crompton, for nearly sixty years, has been selecting red males, and leaving the females to be what they may. By this means they have carefully outbred this now famous breed. Probably, to-day there is not in the whole world another breed of fowls produced by fifty years of outbreeding. If it were only so how much more vigor our several breeds would have." Then, again, in speaking of their utility, for that is what we farmers want: "Little Crompton, R. I., and Westport, Mass., are adjoining towns, lying to the southward of Fall River, Mass. One small vessel from 1827 to 1850 made about twenty-five trips annually between Westport and Providence, R. I. The number of eggs brought on each trip averaged 400 dozen. The total brought by that small vessel in the time mentioned was 3,450,000 dozen, and the value of them was \$35,500."

You can readily see that they are not a very new breed. But the farmers of Rhode Island knew a good thing when they saw it, and for years they kept it to themselves. After a time,

however, poultry fanciers got hold of them, and black cracks. Samples exhibited showed it to be alsince that time their advance has been rapid. One most unsalable, and had the consignment not been thus has only to see the large list of entries in the leading shows in the east to be convinced of their popularity at the present time. They are bred

in every State in the Union. We have bred them for six years, getting our original stock from Rhode Island. At that time I knew of no other breeder in Ontario, now they are counted by the score, besides those in the other provinces. We have compared them in our yards with different varieties of Rocks, Leghorns and Wyandottes, and find them hardier, more prolific layers, and better table fowls than any of the other varieties. They are careful mothers, but not such inveterate sitters as Rocks. The young chicks are much easier raised, and they mature quickly. Last year, with ordinary care and feed, our pullets hatched the 3rd of April were laying by the middle of October. One man with whom we had correspondence had them laying a month younger, but his had better care than the average farmer bestows on his flock. The Rhode Island Reds "go" with the "buying public," and "Subscriber" need not be afraid

of them. Elgin Co., Ont.

Advice on Incubator Management.

S H SMILEY.

To the Editor "Farmer's Advocate":

Early pullets must be hatched in March and April to make fall and winter layers and take the place of older breeding stock which is to be marketed. early cockerels will bring the best profits as fancy spring chickens, and the profits on sale of such should practically pay the cost of the food consumed by the

Don't start with a poor or cheaply-constructed machine. Get the best incubator you can buy, and be as careful in selecting it as you would any other piece of farm machinery. The best is the cheapest in the end. Be sure to get a size large enough to do your work. One with too small an egg capacity will prove a bitter disappointment when eggs are plenty and setting hens hard to find, and 60 eggs will hatch just as well in a 120-egg machine as in a smaller one.

WHERE TO RUN THE INCUBATOR.

As soon as you have uncrated your incubator, before setting it up, read carefully the manufacturer's directions, and then re-read them. This is the only way to start right, and it is important. Learn what you have to do, and how to do it, then go ahead. The first question to come up will be, where is the best place to run the incubator? As a rule, the answer will be that the house cellar, if free from gas and decaying vegetable matter, is the best place, unless one has a specially-constructed incubator cellar; but with a well-made incubator almost any unused room having a firm floor, free from excessive vibration, can be made to serve the purpose well. The best results will be secured in a heated room, where the temperature remains fairly uniform, at about 65 degrees. The question of ventilating the incubator room is not as important as is generally supposed, and so long as the air of the room is kept reasonably pure good results will be obtained. A good deal has been written about the danger from carbonic acid gas, but the fact remains that the embryo chick is able to stand a considerable amount of this gas in the air around the eggs. Several experiments by experienced investigators tend to show that the presence of carbonic acid gas (carbon dioxide) in the hatching chamber, when accompanied by moisture, has a tendency to assist in process of exclusion by its ac tion on the egg shell. Apparently the gas weakens and partially dissolves the shell, making it easier for the chick to hatch. Experiments made at the Experiment Stations found nearly twice as much carbon dioxide under sitting hens as was found in the egg chamber of the incubators used in the test. Ordinarily the incubator room will get sufficient ventilation in winter without keeping the window open. If a number of machines are run in the room it may be necessary to air it out once a day. In summer a window should be kept open night and day for ventilation.

HAVE THE INCUBATOR LEVEL.

Care must be taken to place the incubator so that it will not be in a draft, and it should be made as nearly level as possible. Use a spirit-level on top of the incubator to test it from back to front and from side to side. If a level is not at hand, use a shallow pan of water on top of the machine for the same pur-If the water is the same depth on all sides, with bottom resting evenly on the top of the incubator, the machine is level. Block up under the legs of the incubator until you get it right. If the body of the incubator is not level, the egg chamber will not heat evenly. Be sure, also, that the machine sits firmly.

WARMING UP.

When starting the incubator, run with low lamp flame until the machine is thoroughly warmed through; then run with a moderate lamp flame and adjust the regulating device according to the manufacturer's directions. After securing the proper adjustment, the machine should run evenly, at a temperature of $102\frac{1}{2}$ to 103 in the egg chamber, with the center of the thermometer bulb two inches from the bottom of the egg tray. Maintain this temperature throughout the hatch. Run the incubator empty a few days, until you become familiar with it and are sure that the regulating de-

vice is working properly. After you are sure you understand the operation of the machine, and can run it at an even temperature, the eggs may be put in.

SELECTING EGGS FOR HATCHING.

Don't be eager to fill the machine to the fullest capacity of the egg trays. Select the eggs for hatching as carefully as you would for use under hens. the eggs used for hatching are from breeding stock, that is in the best possible condition. Eggs from debilitated or unhealthy fowls will only prove a disappointment. If they hatch the chicks will not do well, and the probability is that many of them will be dead in the shell or die within the next ten days after hatching. Eggs of medium size usually hatch best; very large or very small eggs should not be used.

STARTING THE HATCH.

After placing the eggs in the machine, let it alone until the eggs have had time to warm up, which will take several hours; then make sure that the machine is holding temperature properly, and do not let the heat run above 103 degrees. Too high a temperature during the first week will injure the germs. Under all ordinary conditions it will be best to run with the ventilators closed in hot-air machines having an exhaust or return pipe to the heater, and nearly closed in other types. Too much ventilation is worse than none. The modern machines of standard make furnish ample ventilation, and it is seldom necessary to run the vents wide open. In case of doubt, consult the directions furnished by the manufacturer. He should know best the proper conditions for securing good results with his machine. Run the incubator lamp with a moderately high flame at the start, gradually reducing the height of same as the hatch progresses, until you are running with the minimum height flame necessary at hatching time. This is necessary on account of the constantly increasing radiation of animal heat from the eggs as the embryo grows and becomes more vigorous.

TURNING THE EGGS.

After the second day it will be necessary to turn the eggs twice a day. These turnings should be as nearly twelve hours apart as possible. The writer prefers to turn eggs by removing them from the center of the tray to the ends, and rolling the balance inward toward the center with the flat of the hand. This is the most satisfactory method, and is easy and simple in practice. It tends to even up any inequalities of temperature in the egg chamber, and gives all the eggs an even chance to hatch well. In addition to this the egg trays should be changed from side to side at the morning turning, when two or more are used, and turned from end to end at the night turning.

COOLING THE EGGS.

Under all ordinary conditions, except in extremely warm weather, the eggs will do better if no cooling or airing is attempted. The eggs get all the airing necessary, for best results, while being turned, and should be returned at once to the incubator after turning. After the eggs are replaced the door of the egg chamber should be closed and the machine let alone until next turning time. The temperature of the eggs and the egg chamber always falls whenever the incubator door is opened. Do not attempt to adjust the regulating device to assist the machine to return to normal temperature; if it is let alone it will recover the proper temperature in a short time without regulation. In very hot weather, where the temperature runs high in the incubator cellar, the eggs may be cooled from five to fifteen minutes once a day. Follow these rules and you will be satisfied. JOHN W. DORAN. Renfrew Co., Ont.

NEWS OF THE DAY.

Canadian.

The new Ontario Legislature was opened at Toronto on March 22nd.

Hon. Arthur Peters has been elected Premier of P. E. I. by acclamation.

The Canadian Government has decided to erect a Marconi wireless station on Sable Island.

A new bridge is to be built across the Niagara River, between Niagara Falls and Lewiston.

France is to import large quantities of salmon spawn from Canada to stock the French rivers. Another oil gusher, flowing at the rate of one bar-

rel per minute, has been struck at Leamington, Ont. The Royal Society's medal has been awarded to Howard Kennedy, a fisherman, of Canso, N.S., for life-

Hon. S. N. Parent has resigned his position as Premier of Quebec, and Hon. Lomer Gouin has been

sworn in in his place.

Abigail Becker, the Canadian Grace Darling, who in November, 1854, risked her life to save the crew of a schooner off Long Point, is dead.

Premier Tweedie, of New Brunswick, has announced that pulp and paper mills on an extensive scale will be established at Grand Falls in the near future.

British and Foreign.

Mount Vesuvius is again in eruption.

One hundred people have been burned to death in a factory at Brockton, Mass.

Samaa, the capital of Yemen, has been seized by the Arab insurgents in the Province.

Russia has raised an internal loan of 200,000,000 roubles, to be used for war purposes.

Jules Verne, the famous novelist, is dead, from a stroke of paralysis at Amiens, France.

The British steamer Harbarton, carrying coal to Vladivostok, has been seized by the Japanese.

Fearful riots, in which many people were killed, have occurred between the Tartars and Armenians at

Russian soldiers in Lamenta, Russian Poland, fired into a crowd of peasants, killing ten and wounding fifty

A man carrying a bomb was arrested near the palace of Grand Duke Alexis recently. The Grand Duke has left Russia.

The plan of double-tracking the Great Siberian Railway has been abandoned, owing to the scarcity of available laborers.

The French commissioner, De Segonzac, sent to Morocco to investigate the commercial conditions there, has been seized by the Arabs.

Three hundred Chinese were burned to death or drowned during a fire which spread among a number of river boats at Hong Kong recently.

The Dowager Empress of China, who is seventy years of age, is seriodsly ill. In event of her death stirring events will likely take place in China.

A volcanic island has emerged near Formosa from the sea, in the Riukin archipelago. It contains a boiling lake at one end, beneath a peak 240 feet high.

The Moscow secret police force has discovered a strong branch of Russian revolutionists, equipped with printing presses, and revolutionary literature, bombs, and infernal machines, ready for export.

An anti-foreign movement, directed against Russian subjects in Persia, has broken out. A general uprising of the Asiatic tribes under Russian rule may be a possibility, now that news of the Manchurian reverses is being circulated.

The retreat of the Russians continues, and the Japanese still follow. Field Marshal Oyama, it is stated, hopes to be in Kirin by April 10th. For the present Russia's chief anxiety is for Vladivostok, which is being rapidly made ready for a siege. There are at present about 26,000 men within the fortifications, and reinforcements are arriving daily, while non-combatants are making all haste to leave the city. That the prospective defenders of Vladivostok have not been idle may be judged from the fact that all the defensive works, entanglements, pits, etc., have been completely concealed by trees transplanted for the purpose. last stroke, also, has been given to repairs on the A recent despatch from ships in the harbor. . Tamatave, Madagascar, states that Admiral Rojestvensky's squadron has sailed, destination unknown. The Admiral's immediate purpose probably is to effect a junction with Rear-Admiral Nebogatoff, whose squadron has been reported as sailing rapidly southward through the Indian Ocean.

THE FARM BULLETIN

Fourteen hundred British and Scandinavian emigrants are en route for Canada, on the Canadian steamer Lake Champlain, and 1,500 on the new turbine steamer, Victorian.

Sir Wm. Mulock. Postmaster General, has again re fused to entertain the idea of establishing rural mail delivery in Canada, on the ground that the system is too expensive in the United States.

Fourteen hundred Ontario people left Toronto for the West on the Homeseekers' Excursion, March 21st. Upon the same day 400 English immigrants arrived. and many were engaged as farm help immediately, by farmers who were waiting in the depot.

We regret to record the death of Mr. Thomas Conant, of Oshawa, who will be remembered by "Farm er's Advocate" readers as a valued contributor of articles pertaining to forestry and tree-growing in gen eral. He also contributed to the "Farmer's Advocate" interesting articles on his travels in various parts of the world.

A Blyth subscriber writes, expressing great satisfact tion with the new combined threshing and cutting ma chine perfected there. . He also asks that Mr. Hall, who wrote an article for the "Farmer's Advocate" last year, on "The Progressive Threshing Co." run on the co-operative plan, would give our readers further par ticulars as to its management and success.

Shorthorn Records Go to Ottawa.

A special meeting of the Dominion Shorthorn Breeders' Association was held in Toronto on March 24th, to consider a proposal by the Dominion Department of Agriculture for the removal of the pedigree records and registrar's office to Ottawa, the objects being to secure unity of the forces of Shorthorn breeders in the various provinces, to have but one record for the breed in the Dominion; the issuance of one standard certificate of registration, and the development of the association on national lines.

The proposal as amended and adopted, on motion of Hon. John Dryden, seconded by Mr. Robert Miller, provides that the association shall have full control of its records, the appointment of its officers and registrar, for whose salaries it shall provide, as well as for the printing of its herdbooks. It is expressly agreed that neither the Department nor any of its officers, clerks or employes, shall receive or administer any moneys belonging to or intended for the association, but by such person or persons as the association may appoint for that purpose. In case the Minister of Agriculture or any officer of the Dominion Government furnishes money to aid any undertaking of the association, the officers, directors and servants of the association shall alone be responsible for the expenditure of the same., in accordance with the instructions given by the Minister or officer representing him. The office of the registrar will be at Ottawa, and all certificates of registration will be issued from there. The Department will supply free of charge an office, heated and lighted, for the use of the registrar and other persons similarly employed, and will also supply the necessary application forms, certificates and stationery, and the regular postal service. An officer agreed upon for the purpose will examine and approve each certificate and affix thereto the seal supplied by the Department.

It was stated by 'the representative of the Minister of Agriculture, that letters of application to the registrar for entry forms and the return of certificates of registration will be free of postage, as will also the herdbooks mailed to members. Mr. H. Gerald Wade was appointed registrar, and Mr. Henry Wade remains secretary of the association. It is hoped the present arrangement will prove satisfactory to all concerned, that any apprehensions to the contrary which have existed will prove unfounded, and that the nationalization of Canadian records will meet the anticipations of its most sanguine advocates.

Experiments with Farm Crops.

The members of the Ontario Agricultural and Experimental Union for 1905 are prepared to distribute into every township of Ontario material for experiments with fodder crops, roots, grains, grasses, clovers, and fertilizers. Upwards of 1,600 varieties of farm crops have been tested in the Experimental Department of the Ontario Agricultural College, Guelph, for at least five years in succession. These consist of nearly all the Canadian sorts and several hundred new varieties, some of which have done exceedingly well in the carefullyconducted experiments at the College, and are now being distributed free of charge for co-operative experiments throughout Ontario. The following is the list of co operative experiments in agriculture for 1905;

	sacre experiments in agriculture for 19	();)	
No.	Experiments.	Plot	ts.
1.—Thre	e varieties of oate		3
2Two	varieties of barley		2
3.—Two	varieties of hulless barley		2
4Two	varieties of spring wheat		2
5.—Two	varieties of buckwheat		2
6.—Two	varieties of field peas for Northern Ont.	rio	2
7Emm	ner and spelt		2
8Two	varieties of Soy, Soja, or Japanese bear	ns	1)
9.—Three	e varieties of husking corn		3
10.—Three	e varieties of mangolds		3
11Two	varieties of sugar beets for feeding purp	rene	1)
12.—Three	e varieties of Swedish turnips		3
13.—Kohl	-rabi and two varieties of fall turning		3
14.—Parsr	nips and two varieties of carrots		3
15.—Three	e varieties of fodder or silage corn		3
16.—Three	e varieties of millet		3
17.—Three	varieties of sorghum		3
18.—Grass	s, peas, and two varieties of vetches		:3
19Two	varieties of rape		2
20.—Three	varieties of clover		3
Ol Vonto	de transce r r		:3
22.—Seven	1 varieties of field beans		7
23.—Three	varieties of field beans		3
24 I DITTA	Yarietics of sweet corn		
~ i) . — P (!] (] [uvers with corn		65
50 - Letti	izers with Swedish turnips		13
TA GLORI	ng potatoes on the level and in hills		•)
28.—Two	varieties of early, medium, or late potate	ous.	- 1
29. Three	grain mixtures for grain production		3
30 — Planti	ing corn in rows and in squares		.)
The siz	ve of each plot in each of the first twen	1.5	
experiment	s. and of No. 29, is to be two rods los	n · 1	
one rod w	ide; in Nos. 27 and 28, one rod square		

in No. 30, four rods square (one-tenth of an acre

Each person in Ontario who wishes to join in work may choose any ONE of the experiments for 1905 and apply for the same. The material will be furnished in the order in which the applications are received, un til the supply is exhausted. It might be well for each applicant to make a second choice, for fear the first could not be granted. All material will be furnished

entirely free of charge to each applicant, and the produce of the plots will, of course, become the property of the person who conducts the experiment.

C. A. ZAVITZ. Ontario Agricultural College, Guelph. Director

Fighting for Better Freight Rates.

Mr. D. A. Gordon, Member for East Kent, has been putting up a strong fight in regard to freight rates for Canadian farmers and merchants in the Dominion House, where the consequent discussion has aroused intense interest, especially among the members hailing from rural constituencies. His contention is: (1) That Canadian rates are far too high, e.g., it costs a Canadian farmer \$9 more to ship a car of live stock from any of the western towns of Ontario to the seaboard than it does his competitor who lives still further west, across the boundary in Michigan, with corresponding differences in other commodities. (2) That the railway rates in Canada are not properly apportioned to the distances involved. For instance, on the "other side," the rate from Chicago to the seaboard, or 100 per cent., is made the unit by which rates from other points are regulated. From Chicago eastward the country is divided into zones, each with a lower rate until the seaboard is reached. From Detroit and Port Huron the rate is 78 per cent. Once over the Canadian boundary, however. instead of decreasing, the rate remains stationary at 78 per cent. all the way across Ontario. Worse than this, even, the paradox appears that, although distance does not seem to count when reckoned from west to east, it counts so materially when reckoned northward, that the freight rates increase in that direction, until at Burk's Falls, a point only 200 miles north of Toronto. the Chicago rate of 100 per cent. is reached. To untangle this snare and introduce a more reasonable system is the task to which Mr. Gordon has addressed himself. His efforts will be warmly appreciated by the farming communities, which are quick enough to resent an imposition once it has become patent. A subcommittee has already been formed to inquire into the affair, and when its investigation has been completed a formal report will be presented to the Railway Commission. It is not impossible, considering all the aspects of the case, that the railways will forestall a full inquiry, by granting such concessions as may prove satis-In any event, it is believed that a radical factory. change will be brought about in the early future.

The Ontario Shorthorn Sales.

The breaking up of the country roads had a harmful effect on the Shorthorn sales last week, it being exceedingly difficult and almost dangerous to drive any considerable distance, owing to the soft snow and flooding creeks.

The Goodfellow Bros.' sale, at Macville, on March 21st, was not up to their expectations, as the quality of their cattle was such that they were entitled to better prices. There was a good attendance from the surrounding country, and quite a sprinkling of breeders from a distance, and those who were present secured some good bargains-20 females sold for \$3,900, an average of \$195 each, and 5 bulls for \$1,050, an average of \$210 each; the 25 head averaging \$198.

Mr. W. G. Howden's sale, at Columbus, Ont., secured very fair attendance, and the useful cattle brought medium prices, but the buyers had the best of it, and received excellent value. The five-year-old imported bull, Meadow Lord, was purchased by Mr. R. J. Bloomfield, of Brechin, at \$250, and the average for all was about \$88 each.

Mr. Geo. Johnston's sale at Bals attendance of breeders from a distance, and, considering the almost impassable condition of the roads, may be said to have been fairly successful. The cattle were an excellent offering, quite beyond the expectations of those who had not seen the herd before. The excellent imported roan two-year-old bull, Choice Koral, by Duthie's Choice, fell to the bid of Mr. Jos. Ackitt, of Inglewood, Peel County, at \$360. The average for the entire herd sold figured out at \$125 each.

The Ogilvie-Hunter Ayrshire Sale.

The initial biennial sale of Ayrshire cattle, belonging to the W. W. Ogilvie estate, together with a draft from the herd of Robert Hunter & Sons, Maxville, Ont., held on March 22nd, at the Ogilvie farm, at Lachine Rapids, near Montreal, was largely attended, there being fully 400 people present, principally from the Province of Quebec and Eastern Ontario, with a considerable sprinkling from the United States of liberal bidders and buyers. The cattle were of high-class character, and the sale, taken all together, was considered a pronounced success, and was satisfactory to the sellers, notwithstanding that several of the bulls did not reach their value; the highest-priced bull being Royal Sovereign of Glenora, a five-months calf, purchased at \$165 by Mr. Pyke, of New York State, who also got a few others. Lord McAllister went to Mr. James t Firk, Campbellford, Ont., at \$105, and the two-yearold Imp. Garclaugh Royal Edward, contributed by Hunter, went to Mr. J. G. Clark, Ottawa, at the same price. The highest-priced female, Imp. Garcheigh Plint, fell to the bid of Mr. R. R. Ness, Howick, at \$100; Mr. G. W. Bellow, of Middleton, N. Y., a persistent competitor in the bidding, and who cel Wiss Prudence of Glenora, at \$305, the runner-Island Mr. J. G. Clark, who secured Dorothy of Second at \$185, and Carsegowan Queen (imp.), at \$115. everage poice for the 63 head sold was \$101.64, atich should be regarded as a very fair result.

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MARKETS.

Toronto.

LIVE STOCK.

Export Cattle-Choice, \$4.40 to \$5; good to medium, \$4.25 to \$4.40; good cows, \$3.25 to \$4.

Butcher Cattle-Good to choice, \$4.40 to \$4.70; fair to good, \$3.50 to \$4.10; mixed, \$2.50 to \$3.75; common, \$2 to \$3, and cows, \$2.50 to \$4.

Stockers and Feeders-Feeders, \$2.50 to \$4.60, and stockers, \$1.30 to \$3.40. Milch Cows-\$30 to \$62 each.

Calves-31c. to 6c. per lb., and \$2 to \$12 each.

Sheep and Lambs-Export sheep are quoted at \$3.50 to \$5.25; mixed, \$3.50 to \$4.60; lambs, \$6.75 to \$7.35; barnyards, \$5.50 to \$6.50, and springs, \$4 to \$8 each.

Hogs-\$6.25 for selects, and \$6 for lights and fats. It is stated here that some packers are paying as high as \$6.75 for selects.

GRAIN, FLOUR AND FEEDS.

Wheat-Red and white are worth \$1.06 to \$1.07, middle freight; spring, 98c., middle freight; goose, 92c.; Manitoba, No. 1 hard, \$1.10, grinding in transit; No. 2 northern, \$1.07.

Flour-Manitoba, first patents, \$5.70 Manitoba, second patents, \$5.40 and \$5.30 for strong bakers', bags included, on track at Toronto; 90 per cent. patents in buyers' bags, east or middle freight, \$4.50 to \$4.60; Manitoba bran, sacks, \$18 per ton; shorts, sacked, \$20 per ton, in Toronto.

Oats—Quoted at 41c., high freights, and 41c. for No. 1, east.

Corn-American, 56c. for No. 3 yellow, on track at Toronto.

Peas-65c. to 66c., high freight, for mil-Rye-Quoted at about 74c., outside. Buckwheat-At 56c., eastern.

Barley-No. 2 at 47c.; No. 3X, 44c. COUNTRY PRODUCE.

Butter-Holds steady.	Receipts	are
light Prices are unchange	eu.	
Creamery, prints	25c. to	24c.
radio suba medium	176. 00	1000
do, inferior	ce.22c. to	23c.
1 large rolls	200. 00	2220
do, medium	n tone, a	nd is
quoted unchanged at 11½c	. 101 1416	

11%c. for twins. Eggs-Are steadier in tone, as receipts Quotations are unchanged at are light. 16%c. to 17c.

Potatoes-The market retains an easy tone, and is quoted unchanged. Ontario, 65c. to 70c., on track, and 75c. to 80c., out of store. Eastern, at 70c. to 75c., on track, and 85c. to 90c., out of store.

Beans—Steady to firm. Hand - picked, \$1.75 to \$1.80; prime, \$1.65 to \$1.70,

and undergrades, \$1.25 to \$1.50. Hops-Trade is quiet. Canada crop un-

changed at 32c. Maple Syrup-Receipts have been fair Quotations are steady at \$1 per imperial

gallon. Baled Hay-The heavy receipts have given an easy tone to the market. No. 1 timothy is quoted at \$7.75 to \$8 per ton, and \$7 for mixed or clover, in car lots, on track here.

Baled Straw—Has an easy tone at \$6 per ton for car lots, on track here.

Chicago.

Chicago - Cattle-Good to prime steers \$5.15 to \$6.25; poor to medium, \$3.90 to \$5; stockers and feeders, \$2.75 to

\$4.65. Hogs-Mixed and butchers', \$5.20 to $\$5.42\frac{1}{2}$; good to choice, heavy, \$5.35 to \$5.47 $\frac{1}{2}$; rough, heavy, \$5.20 to \$5.30 light, \$5.15 to \$5.35; bulk of sales. \$5.30 to \$5.40.

Sheep—Good to choice wethers, \$5.75 to \$6.25; fair to choice, mixed, \$4.75 to \$5.50; Western sheep, \$5 to \$6.25; na tive lambs, \$5.50 to \$7.65; Western lambs, \$5.50 to \$7.75

British Cattle Market.

London-Live cattle are quoted at 10%c. to 12c per lb.; reinigerator beef. 8%c to 8%c. per lb., sheep, 12c. to 13c.

Montreal.

Eggs-Easier during the past week, buyers paying about 17c., f. o. b. country points; wholesale prices locally at the depot for straight-gathered lots, 18½c. to 19c. a dozen; smaller lots at 19c. to 19½c., and single cases, 20c. Many look for the market to go off a couple of cents before it can be depended upon.

Butter-Prices have gradually declined during the week. The lot of Australian goods referred to as detained in New York was reshipped to England. Fair creamery, 24c. per pound, and choice, 26c. New-milk butter not increasing very rapidly. Bad roads and prospects for worse ones affect the market in an uncertain way. It was reported that a sale of some poor Manitoba dairy butter recently exported was made in Liverpool at the unexpectedly good price of 17c.

Cheese-Strong during the week, and not more than a few thousand boxes are thought to be left unsold in the city It is likely that during the week 10,000 boxes were disposed of. Every reason to expect season to open up much firmer than a year ago. Butter being firm everywhere will attract attention in some quarters. Quote finest, 113c.

Potatoes-Local deliveries competing with regular supplies from outside points have had a depressing effect on prices. Quote 60c. to 65c. per 90-lb. bag for fine stock, according to quality. Season not

likely to wind up with high prices. Turnips and Onions-Turnips said to have advanced \$8 per ton during the week. Carloads being quoted at \$15 per ton, on track, Montreal. Red Globe onions, 3c. to 3½c. per lb., in a jobbing

way; firm. Beans-Receipts light; demand for local account not active, thought there is a steady trade passing. Export demand keeps up, and shipments are still being made, though in reduced quantities. Stocks throughout the country believed to be light. Best quality about \$1.75; inferior stock may be had down to \$1.40. Mill Feed-The market continues active. It is next thing to impossible to get Ontario wheat bran, and prices are \$1 per ton higher than Manitoba. In fact, it is said that even the product which is sold for Ontario is largely Manitoba. Manitoba bran is quoted at \$18 to \$19 per ton, in bags, on track; shorts being \$20 to \$21 per ton. Stocks of both are

said to be light. Live Stock-Exporters were disappointed this week to hear that the markets in England showed a decline on cattle of tc. Liverpool quoted best Canadians at 10 1c. to 10 1c.; best States being 10%c. to 11c. and 11%c. London quoted best Canadians at 11c., and best States at 111c. Glasgow was quiet and somewhat lower, at 11½c., for best States, to 12c. The decline was due partly to the heavier deliveries on the English markets, and partly to the reduced demand during the Lenten season. Local exporters are beginning to make arrangements for the coming season. It stated that freight space on ships sailing from Montreal in May and June for Glasgow has been taken at 40c. per head; some having been taken for Liverpool at the same figure. Meantime, space for the rest of the season has been taken from West St. John, N. B., Liverpool, London and Glasgow, at 37s. 6d, which is an advance of 2s. 6d. on the last figures reported. The present season, consequently, gives promise of opening fairly well. The local market for live stock was about steady this week, the feature being the great strength of hogs. This was due to the light receipts of country-dressed, the small number of live, and the active demand for everything in the shape of hogs obtainable. The foreign market is strong also, thus adding to the firmness of the position. It is claimed that the equivalent of 7c. was paid for select hogs, off cars, not fed or watered; mixed and heavy stock selling down to \$6.50. Lambs were rather easier at \$6 to \$8 each, for spring lambs, and 54c. to 54c. for yearlings; sheep bringing 4c. to 4½c. Cattle were unchanged at 41c. to 41c. for choice; 3%c. to 4%c. for good; 3c. to 3%c. for medium; 31c. to 31c. for common. and 1½c. to 1%c. for inferior. Calves were more plentiful at \$1 to \$3 for com-

mon, and \$5 to \$10 for best animals. Grain-The market for oats shows little enough change since a week ago. The situation is still easy, and helders still demanding as high as before. Farmstocks for high figures, and it would by Seed Grain and Spring Seeding ...467 Lameness

prices than a basis of those being de manded here by dealers. Stocks here in red clover, \$13.50 to \$16, and timothy. creased 35,000 bushels during the week, at 135,000, and deliveries continue large -larger than ever, in fact. It is said that this is as it ought to be at this time of year, for if the oats do not come in now, they will not come at all. The local market is far above the export price, and below a basis of the American market; 451c., store, would seem to be a fair figure for No. 2 oats, and 44 c. to \$3.75. 45c. for No. 3 stock. Some rejected Manitobas were sold at a basis of 44c., store. The demand is very dull, buyers fighting shy. There is nothing worthy of note in any other grains, locally.

Dealers have experienced a considerable Orders have been coming in freely from to \$5; heifers, \$3.85 to \$4.85; cows, \$3 all quarters, and shipments have been to \$4.35; bulls, \$8 to \$4.50; stockers steady, with prices about the same as and heifers, \$3 to \$4.40. formerly. Quotations, f. o. b. Montreal, | Veals-\$4.50 to \$8.75.

impossible to replace the oats at lower in lots of one to a dozen bags, are alsike, \$11 to \$16 per hundred pounds \$3.50 to \$5.50. The range of prices takes in all qualities.

Buffalo

Buffalo.—Hogs—Dull; heavy, \$5.50 to \$5.60; mixed, \$5.55 to \$5.60; Yorkers, \$5.35 to \$5.57\frac{1}{2}; pigs, \$5.20 to \$5.25; roughs, \$4.75 to \$4.90; stags, \$8.25 to

Sheep and Lambs — Active : lambs, \$6.50 to \$8.50; Western, \$8.25 to \$8.50; yearlings, \$7 to \$7.85; wethers, \$6.25 to \$6.50; ewes, \$5.75 to \$6.15 sheep, mixed, \$2.50 to \$6.15.

Cattle-Prime steers, \$5.50 to \$5.75 increase in the activity of their market. shipping, \$5 to \$5.40; butchers', \$4.50



Capital Authorized. \$2,000,000.00. Head Office, Toronto, Ont. Edward Gurney, President.

EVERY DESCRIPTION OF BANKING BUSINESS TRANSACTED. Special attention given to accounts of Cheese Factories, Drovers and Grain Dealers, and

Special attention given to accounts.

all out-of-town accounts.

Farmers' Notes discounted, Farmers' Sales Notes collected and advances made farmers' Notes discounted, Farmers' Sales Notes collected and advances made against their security.

Municipal and School Section accounts received on favorable terms.

SAVINGS BANK DEPARTMENT Deposits of Twenty cents and upwards received, and interest at 3 per cent. per annum, compounded four times a year, without presentation of passbook. No delay in the withdrawal of any portion or the whole of the deposit.

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Life, Literature and Education.

A poet must sing for his own people.-Stedman.

To a poet, nothing can be useless .- Johnson.

God's prophets of the beautiful These poets were.

-E. B. Browning.

Next to being a great poet is the power of understanding one.-Longfellow.

Canadian Poetry.

Feeling that a broader knowledge of Canadian Literature is necessary to a quickly-developing country such as ours. we have thought that a list of the later publications of our Canadian writers might be interesting and profitable to a great many of the "Farmer's Advocate and Home Magazine " readers. The following catalogue of poetical works has been kindly supplied us by the Wm. Briggs Co., Toronto.

Sea Murmurs and Woodland Songs-Mrs. J. N. Faulkner.

Canadian Crystals-Rev. Thos. Watson, Chas. Mair's Poems.

Song Waves-T. H. Rand.

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-J. D. Edgar, M. P. The Unnamed Lake-Fred. Geo. Scott.

Wayside Echoes-Sophia V. Gilbert. Robert Elliot's Poems-(Edited by John Dearness, M. A., and Frank Lawson). Treasury of Canadian Verse-T. H.

Songs of the Great Dominion (out of print)-Lighthall.

"The Man Who Rose from me?" This question, so legitimate Nothing."

The following poem was written by Alexander McLachlan, a wellknown Canadian poet, who spent the greater part of his life in Canada, and died at Orangeville, Ont., in 1896. His poems, many of which are very beautiful, have been collected into three volumes, "Lyrics," "The Emigrant," and "Poems and Songs." "The Man Who Rose From Nothing" voices a good deal of sturdy Scotch ambition and Canadian independence in a very few words.



Alexander McLachlan.

Around the world the fame is blown Of fighting heroes, dead and gone; But we've a hero of our own-The man who rose from nothing.

He's a magician great and grand; The forests fled at his command; And here he said, "Let cities stand!" The man who rose from nothing.

And in our legislative hall He towering stands alone, like Saul, 'A head and shoulders over all." The man who rose from nothing.

The gentleman in word and deed; And short and simple in his creed Fear God and help the soul in need! The man who rose from nothing.

In other lands he's hardly known, For he's a product of our own; Could grace a shanty or a throne-The man who rose from nothing

Here's to the land of takes and pines. On which the sun of freedom shines, Because we meet on all our lines The man who rose from nothing.

The Mercenary Spirit.

From "The Simple Life," by Charles Wagner.

The mercenary spirit resolves everything into a single question: "How much is that going to bring me?" and sums up everything in a single axiom: "With money you can procure anything." Following these two principles of conduct, a society may descend to a degree of infamy impossible to describe or to imagine.

"How much is it going to bring while it concerns those precautions which each ought to take to assure his subsistence by his labor, becomes pernicious as soon as it passes its limits and dominates the whole life. This is so true that it vitiates even the toil which gains our daily bread. I furnish paid labor; nothing could be better; but if to inspire me in this labor I have only the desire to get the pay, nothing could be worse. A man whose only motive for action is his wages, does a bad piece of work; what interests him is not the doing, it's the gold. If he can retrench in pains without lessening his gains, be assured that he will do it. Plowman, mason, factory laborer, he who loves not his work puts into it neither interest nor dignity-is, in short, a bad workman. It is not well to confide one's life to a doctor who is wholly engrossed in his fees, for the spring of his action is the desire to garnish his purse with the contents of yours. If it is for his interest that you should suffer longer, he is capable of fostering your malady, instead of fortifying The instructor of children strength. who cares for his work only so far as it brings him profit, is a sad teacher, for his pay is indifferent and his teaching more indifferent still. Of what value is the mercenary journalist? The day you write for the dollar, your prose is not worth the dollar you write for. The more elevated in kind is the object of human labor, the more the mercenary spirit, if it be present, makes his labor void, and corrupts it. There are a thousand reasons to say that all toil merits its wage, that every man who devotes his energies to providing for his life should have his place in the sun, and that he who does nothing useful, does not gain his livelihood; in short, is only a parasite. But there is no greater social error than to make gain the sole motive of action. The best we put into our work-be that work done by strength of muscle, warmth of heart, or concentration of mind-is precisely that for which no one can pay us. Nothing better proves that man is not a machine than this fact : two men at work with the same forces and the same movements, produce totally different results. Where lies the cause of this phenomenon? In the divergence of their intentions. One has the mercenary spirit, the other has a singleness of purpose. Both receive their pay, but the labor of one is barren: the other has put his soul into his work. The work of the first is like a grain of sand, out of which nothing comes through a'l

eternity; the other's work is like the living seed thrown into the ground; it germinates and brings forth harvests. This is the secret which explains why so many people have failed while employing the very processes by which others succeeded. Automatons do not reproduce their kind, and mercenary labor yields no

Silence as a Weapon.

A war correspondent, writing from Manchuria after the fearful rout at Mukden, throws a great deal of the responsibility of the terrible defeat upon the looseness with which the military secrets were guarded. Every Russian plan, he says, was generally known for days, sometimes weeks, before the time fixed upon for its accomplishment, and coming military manœuvres were discussed by the pettiest subalterns in the army with a freedom at such a time little short of criminal. On one occasion, for instance, a Russian officer was overheard explaining a certain line of fortifications freely in the presence of two or three Chinese, who turned out afterwards to be spies. Upon the Japanese side, on the other hand, not one outside of the select circle of generals in high command knew a single detail of the hidden springs upon which the great movements of the campaign were to revolve. Absolute silence toward the rank and file, censorship of the press, these were two of the mightiest mortars in the Japanese artil-

Not only in war, however, is the habit of babbling a foolish, if not an utterly disastrous one. There are some people in this world who never to be able to keep anything. Do they meditate a piece of business, they must straighway inform all their friends and neighbors about it. Do they hear a piece of news, their tongues immediately itch until it has Leen passed on to every one within button-holing distance. Now, the one practice is as foolish as the other. In the latter case, should the news prove unfounded, it is sometimes as inconvenient as embarrassing to be obliged to retract one's words. As to the former, it is surely very unwise to air one's private affairs before the public. In the first place, the public seldom sympathizes. It simply looks on with curiosity, and if the venture prove a failure there are always enough daws to stand around and flap their wings and cackle. Occasionally, too, the babbling man runs up against a shark who manages to checkmate his little attempt. and, possibly, to take advantage of the very plan which the other has hatched. In such a case the ousted one has, at least, come into possession of a bit of wisdom, and wisdom so learned is seldom forgotten. Discretion, however, is the better part of valor, and it should be remembered that prudence is by no means to be confounded with secrecy. an attribute, which, somehow, seems to be taking an unenviable reputation to itself nowadays. silent tongue is the prudent tongue.

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Vladivostok Soon to be a Scene of War.

The following interesting description of Vladivostok, which was written a year or so before there was any word of the Russo-Japanese war, is from the vivid pen of Mr. John Foster Fraser, a noted British traveller and journalist. Truly a short period of time may make many changes. According to present indications, it would appear that Russia may soon find occasion to revise the words inscribed on the plinth of General Nevelskof's statue. She has already lowered her flag at Port Arthur. she lower it next at Vladivostok?

Mr. Fraser's narrative runs as follows On the second day we ran through a wild country, with huge, round-shouldered hills and shadowy dells reminiscent of wildest Scotland if, instead of heather hues, you can conceive sides bunched with

rich variegated undergrowth. Somebody shouted something.

On the right, far off, like the gleam of a sword blade, was the glitter of the Pacific Ocean. I had travelled far since I saw the sea before. And then the sunset! I have a weakness for sunsets, and this one was wonderful; a mass of gold and blood, like a great cauldron into which other worlds were thrown, banking up the heavens behind a mass of clouds.

The train reached the edge of the sea and hastened along, between cleft rocks, shrieking its progress, and the echoes came back from the hills. A few Chinese junks were stranded on the shore. We began to run by a suburb of shanties. Then we stopped beneath a hill.

What place was this? Well, this was the original Vladivostok station, and you had to drive by droshki a few versts over the hill to the town. This was in strict accordance with the planting of Siberian

The train grunted on up an incline and round an elbow of rock. Dusk was closing in. I stood at the window. There was the Pacific, smooth and now as dull as a sheet of lead. By the line tramped soldiers who had ceased work for the day. There was a little log-built, drabpainted hut. Before it stood a man holding a green flag. I am sure it was his brother I saw at the first signal-hut out of Moscow nearly two months before. He was wearing a beard like him, and his peaked cap was pulled well over his eyes. His red shirt was hanging just outside his trousers just in the old way. And the green flag was wrapped round the little stick in umbrella folds, just as it was a verst east of Moscow.

Those signalmen and those green flags I had seen all the way, save on the Shilka and Amur rivers, and there the signals were red and white posts.

The back yards of rows of houses crept view just as they do when you are introduced to an English town by rail. Then came the crossing of a broad street, and the iron barriers were checking a surge to traffic-carts and carriages, uniformed Russians, White-smocked Koreans, blue-shirted Chinese.

We were in Vladivostok station, the end of the great trans-Siberian railway line, and it was the only station from Petersburg to the Pacific that was right in the town. As I jumped from the carriage, my eye was attracted by a big board on which, in massive letters, was inscribed: "Vladivostok to St. Petersburg, 9,877 versts." It was five o'clock in the evening of Wednesday, October 2nd, but nine o'clock in the morning by Greenwich time.

Most of us take to towns as we do to persons-at the first blush or not at all. I felt attracted to Vladivostok before I had been in it ten minutes.

About the station was vigorous, energetic life. A porter seized my baggage, and instead of slouching ran so that I might secure a carriage. He was the first Russian I had ever seen in a hurry.

The drivers were alive, and swung up their horses with a crack. Most of these men were fair-whiskered and light-eyed, picturesquely clad in cloaks of blue velvet and with red shirt sleeves stricking through the armholes. On their heads

were curly astrakhan hats. The carriage rattled over the stones of a strongly-paved street. On the right was the harbor, a fine fifty-acre kind of lake, hill locked. In strong array were



The Market Place, Vladivostok.

anchored in line eight Russian men-o'war ships, all painted white, and apparently ready for business. Little launches puffed and snorted.

On the quay side were two passenger one in that morning from steamers, Japan. The singing of the Chinese gangs as they trotted along under the weight of bales was heard above the clatter of wildly driven droshkies-and all the carriages in Vladivostok tear along as though there was a chariot race, so that, as there is no rule of the road, you are on the brink of a newspaper paragraph whenever you go out-while little bunches of sailors went rolling by, rather drunken, and with their arms round each other's

On the other side of the street reared

around I was checked with a notice to keep off forbidden ground. All the hills overlooking the channel way from the ocean to the harhor-where all the navies of the world could be smuggled away and nobody find them by searching the coast line-seem burrowed with forts. Every day one or more of the eight warships in harbor went out and did target practise. I climbed a mound behind the town. about as high as Arthur's Seat at Edinburgh, and obtained a fine view of the town and harbor. The Russians are very proud of the way they have guarded Vladivostok against attack. Yet friendship to other navies is always outstretched. A couple of Italian men-ofwar ships came in during my visit, and there was firing of salutes, dinner

You cannot exhaust the sights of Vladivostok in an afternoon as you can most Siberian towns. There is much to be seen. Most attractive to me were the street scenes, the officials, military and naval, the business men really moving and not dawdling the day away, which most Russians do, to the tantalization of all brisk Westerners; the gangs of Chinese laborers, who work from sundown to sundown, and are always happy; the perky little Japanese, aping European costume, whilst their womenkind keep to their winsome Nipponese garb, and go clattering about on wooden shoes; and the Koreans, all in white and with features so soft that you mistake then for women: a polyglot crowd indeed, all

helping to make the town prosperous. No man can come through Siberia to such a place as Vladivostok and give a thought to what Russia has done in the generation without being amazed. We may criticise Russian manners and growl at Russian diplomacy, and wonder how people can live under an autocratic government! But Russia has laid hold on the East.

I went a walk one evening in the public gardens. There was a statue fronting the Pacific, to General Nevelskof, who labored long and successfully for Russian dominion. On the plinth are inscribed his own words: "When a Russian flag is once hoisted, it must never be lowered!"



Bird's-eye View of Vladivostok and Harbor.

huge white painted balustraded and os- parties and junketings, whilst the Rustentatious stores, as big as the shops in sian and Italian sailors fraternized and Regent Street, but not so continuous.

here, a colossal magasin there, a block of offices somewhere else, everything telling of a new town in the throes of development-a broad asphalted pavement at one place, planks broken and uneven in another. The first idea I got of Vladivostok remained during my stay. It is a busy and lively town. It hugs the side of billowy hills and at the same time clings to the harbor side. This harbor is made by nature, not large but deep, absolutely shut off from the Pacific and guarded by a row of fortress teeth. Once or twice I went roaming with my camera, but everwhere on the hills the regulation.

drove about in droshkies, generally five in a droshki that can really carry two: and the Russian sailor was affectionate to his Oi'll ate any kind o' thim without comvisitor, put his arm round his neck, and plainin. kissed him.

Only two foreign battleships are allowed in Vladivostok harbor at once. This is a regulation the British squadron on the Chinese station is responsible for. A few years ago, when one of the many fogs was hanging over the harbor, some ten British warships came in quietly, dropped anchor in position facing the town, and made all the Russians gasp the next morning when the fog lifted. They did more than gasp, they were furious. Hence

Humorous.

"It is strange," said the minor poet, with an important air, "but there are days that I cannot write at all."

"Me, too," replied the plain person, "and Wednesday's the worst of all. I 'most generally write the 'n' before the

Housekeeper-And are you good about roast meats?

New Girl-Faith, Oi am so, ma'am,

"Yes, indeed," said the steersman to the admiring young ladies. "This vessel makes sixteen knots an hour."
"Goodness!" commented one innocent young thing, "you must use a lot of rope during the year."

Badger (angry and excited)-I say, your dog bit one of my boys last night. What are you going to do about it? M'Gall-Well, if it doesn't make the dog ill, I won't do anything about it.



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THE CHILDRENS OF C

Mr. Sun's Story.

'I asked the Sun to-day
If it were true
About the Moon, you know,
And he looked through
The window, and he said
It was a lie,
And told me this instead:

"That long ago the Moon and he Were Wed,
And used to go,
Bright, happy, hand-in-hand
Both to and fro
Morning and evening skies,
But, one sad day.
The silver Moon fell ill
And died away;
And nevermore will be
Together they.

Together they,
And nevermore will go,
Bright, hand-in-hand,
And nevermore will walk
The same sweet land

"He said that he would give

'His whole blue sky

If he could only see her once
And die!

Just kiss each baby star
Upon its cheek!
For that is all, he says,
He shines to seek.
It does seem sad that he

So long has shone
For others' joy—but has not
Found his own."

Living Dolls, and How to Make Them.

Years ago, when I visited Madame Tussaud's waxworks in London, England, I was especially interested in a model of "Tom Thumb," who was standing on the outstretched hand of a modern giant. This was not the Tom Thumb who, according to the old fairy tale, was small enough to ride on a butterfly. He was a real dwarf, called Charles S. Stratton, who died about 20 years ago. Poor little man, he often used to say to his tiny wife, as he watched children plaving: "Oh, Vinnie, what a good time they are having! You know I never was allowed to be a child." Barnum took him when he was only four years old, and exhibited him for many years under the name of "General Tom Thumb." He married one of the tiny Warren sisters, who was not quite a yard in height. The wedding, which took place in New York about 40 years ago, was a very grand affair. The bride ooked like a big doll in her dress, which was made by Worth, the famous Paris dressmaker, and she fairly blazed with jewels.

Soon after Tom Thumb's death, the tiny widow married an Italian Count, who was only a few inches taller than herself. The Church of the Holy Trinity, New York, was crowded with about 3,000 people, all as eager as you would have been to see the doll-like wedding. The bride's dress was of lavender satin and velvet, with a train twice as long as herself, and she wore a diamond necklace and bracelets. When the clergyman stooped to kiss her he leaned so far over that it seemed to the people behind as though he almost touched the floor.

You children would have liked to visit the house in which the little Countess lived with her first husband. The steps of the grand staircase were very low, and the window-sills were also near the floor. In one room was a tiny billiard table, in another a little set of bed-room furniture. The little bed, which was given to Tom Thumb by one of his grand friends in England, was very pretty, with its dainty lace draperies hanging from a gilt crown There were the dearest little chairs and sofas in this house, and a beautiful grand piano, about a foot high. This was not like an ordinary toy piano; for, though the keys were too small for an ordinary person to play on them, its tone was perfect and it was beautifully inlaid with pearl. The "General" had also a tiny, real gun, with which he could shoot bards flying, a little violin, and a diminutive Masonic ap-

ron, for he belonged to the Masonic order. The Countess used to sew on a little sewing-machine. Indeed, she had two, one was an old-fashioned Wheeler & Wilson, and the other a Singer. These were models, presented to her by the manufacturers, and she could run up a seam with them very swiftly. Don't you wish you had one? You can "pretend," of course, and that is almost as good fun as having the real thing—sometimes better.

One day I was amusing some children with a made-up story about a doll's house, and made it very grand, with its bath-room, kitchen, etc., all fitted with tiny furniture. One little four-year-old listener, little Nell, said eagerly: "Was there a dear little tiny piano?" She looked so excited that, just for fun, I answered: "No, there was no piano."

Dreadfully disappointed, she pleaded: "Couldn't there be a dear little piano in the drawing-room?" but I stuck to my first statement. It was unkind, certainly, for the imaginary house could have had any number of imaginary pianos, but I was trying an experiment—testing the strength of her imagination. It must have been very strong, for she could hardly have been more distressed if the house had been a reality and had belonged to herself.

If imagination can make things seem as real as that, children hardly need toys at all. I once knew a little boy who, when he was going out to play in the snow, would say to me quite gravely: "Will you hold my mare while I am out? She is very skittish, and will run away if you give her her head." promised to be very careful, and he would go out with a serious expression on his face, really seeming to believe that there was danger. The mare, which was only a kitchen chair, gave him quite as much pleasure as any rocking-horse. Indeed, it was better than a toy in one way, because it could be turned into anything. by means of the magic wand of imagina-One minute it might be a horse, and the next it would be transformed into a steamboat or an electric car. If that happy child had been the unhappy possessor of quantities of expensive toys, his imagination would never have learned to work such wonders. As it was, he had no reason to envy Aladdin his wonderful lamp. Nor have you.

This little girl is very poor;

She has troubles, she finds, she can scarce endure;

And yet my dear, she has playthings plenty—

Dolls as many as two and twenty, Houses and arks and picture-books, Something pretty wherever she looks. But half the time she's puzzled to know

What to do with the wonderful show, Tired of dollies two and twenty. And bored with her various toys applenty.

"That little girl is very rich,
With an old doll like a perfect witch.
A broken chair and a bit of delf,
And a wee cracked cup on the closet

She can play with only a row of pins. Houses and gaidens, arks and inns.

She makes with her chubby fingers

And she never needs a toy at all.
Unseen, around her the fairies stray.
Giving her bright thoughts every day.

Poor little girl and rich little girl.

How nice it would be if in time's swift whirl

You could perhaps not change your places,
But catch a glimpse of each others

For each to the other reald something give

Which would wake the shill life sweeter to live

For both could give such to the right share.
Something the outer taster, and

Another small friend of hord and to

"I can stay all day, and that other little girl has to stay at home and practise four hours." Perhaps you may think she was very unkind in thus exulting over some other child's troubles, but we understood each other. I knew well enough that the "other little girl" was only imaginary, and, therefore, no amount of wearisome practising could hurt her. My sunny Marjorie would have been the last person to rejoice over a real little companion's troubles, although she enjoyed her own freedom more when she piled up burdens for her dream-friend. I don't know why it should be so, but children are inclined to invent imaginary "pleasures," while grown-up people often go out of their way to invent imaginary "troubles." This last is a great mistake: and, if you take my advice, you will form the sensible habit of looking for the bright side of every-If you can't find the bright side -be sure there always is one-invent one. Then your face will be so bright with inner sunshine that any stray sunbeams which may be hunting about for a shining palace to live in will be sure to be attracted to you.

The mail has just come in and was unusually interesting, for I received a card from Egypt, showing the desert with a picturesque group of camels, and also the following letter and verses from one of our young English readers. We gladly welcome you as a Cornerite, Muriel, and hone you will soon make the acquaintance of Our Lady of the Sunshine and the Snows. We hardy Canadians love our glorious, bracing winters quite as much as our sunshiny summers. Your verses are very pretty, and show the possibility of finding sunshine in even the darkest COUSIN DOROTHY. cloud of sorrow.

Normanhurst, De La Harr Pde., Bexhill,, England. To the Editor of the "Farmer's Advo

cate":
I thought I would send you a few lines
of my own composition for the "Farmer's
Advocate," and hope you will find room
for them. My brother is a subscriber,
and we are hoping to come to Canada
soon.

My age is fourteen.

Yours truly, MURIEL C. OSBORNE.

Sunshine and Sorrow.

Two little rosebud lips
Purted in glee;
Two little wide, blue eyes,
Smiling at me;
Two little dimpled cheeks
Radiant with mirth;
Little white, pearly teeth.
Sweetest on earth.

Two little restless feet
Never at peace,
At the sound of whose pattering
All troubles cease.
Sweet head of golden hair,
Falling in showers,
Which vie with the sunshine
In bright Summer hours.

Two little silent lips,
Silent for aye;
Two little checks, where now
No dimples play;
Two little bright eyes
Are closed to the light,
No more to shine here
With rapturous delight.

Two little cold white hands
Folded in rest;
Tis hard to submit
To "the Will that is best";
Two little tired feet
Resting in Peace,
Have gone to that land where
All Earth's troubles cease.
MURIEL, C. OSBORNE.

How a Boy got a Watch.

Dear Sirs.—I received your No 3 premium watch for getting subscribers to the "Farmer's Advocate," and am very much pleased with it. It is much better than I expected, and, besides, the new subscribers are all much pleased with the paper. My age is thirteen.

Simcoe Co., Ont. W. J. COLEY.

"Isn't this bill rather large, doctor? You only prescribed once, and I only took one of your pills." "Well, it was that pill that cured you" "I am not electing to the pill, doctor, but to the pellage"

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W.

atch.

The Farmer's Wife.

east wind of their wives displeasurethey do not is wrong too.

systematically that it left time for the more bread crumbs. CHATTERBOX. girls to do fancywork, to go visiting, and receive visitors, and they have a horse and buggy whenever they want it. I have noticed how much some women accomplish so easily, while others, always in a hurrying, bustling worry, do so little. I have read "you should never call attention to defects unless to remedy them," so I would say to our Illinois sister, or any other sister who may be similarly placed, that "self help is the best help." God helps those who help themselves, whether in domestic or any other business of life. If she is married to a coarse, ignorant man, it is foolish for her to expect the consideration and attention that a refined, cultured gentleman would give her; however, bitter and sad it may be not to be appreciated and cared for, and to know that her husband understands how much work his horses can do, but has no consideration for his

She must decide for herself what she can do and what is her duty, and then firmly do what is right. She should treat and speak to and of her husband with kindly courtesy, and remember that no man or woman who grumbles or complains about his wife or her husband, has any sympathy or respect from others. If it is right to read and write, do it; but someone, and thanking you for your not by stealth, only do it at the right space, I will sign myself— "PADDY." Many a right thing is made wrong by doing it at the wrong time. Sitting down to read, write, or play, when the regular daily work is not done, is wrong, and often causes much discomfort and trouble. "Recreation is right, when it comes after work, and wrong when it is taken first." Domestic trouble is often caused by selfishness. Too much is thought of how one is treated and spoken to, and not enough of the rights and wishes of others. Often not enough consideration is given to individuality. God has not made two people alike any more than two faces, and it is impossible for all to think and

act in the same way.

Mr. Gladstone said the way domestic problems were settled in his household was, "When I insist, Mrs. Gladstone submits; when Mrs. Gladstone insists, I submit." We read and hear much about a mother's influence, but too little is expected of the father's. If the parents were more considerate and polite at home and taught their boys to be so, it would make many a home more pleasant and

My niece's husband came of a family of six-three girls and three boys. He told me that his father taught the boys to treat their sisters as ladies and their mother as something almost divine, and row it is natural for him to act toward his wife and daughters in the same way. Politeness is like an air cushion. nothing in it, but it eases the joints." Manners are not idle, but the fruit of

noble natures and loyal minds." The late Henry Drummond said if one would read thoughtfully the 13 of 1st Cor. every day for a month, it would is Satis transform one's life.

Hoping that others will express themselves on this important subject. HELPONABIT

Answer to Juanita.

Dear Dame Durden,-I have read your Dear Dame Durden,-I wonder now many letter of Feb. 23rd, and accept your in- Ingle Nookers are interested in the Wovitation to express myideas on the subject. men's Institute? We have such pleasant I think it is in the individuals, and not meetings. They are generally held from whether they live in town or country to house to house, and I think it helps the have a peaceful, happy home, one of the ladies to speak, as it seems so much greatest earthly blessings. There are two more formal in a hall or public building. sides to every question, you say, and wo- I can picture Aunt Libbie's kitchen. She men are not the only sufferers. I know some must enjoy working in it, and I do not good, kind, honest, industrious men, fond think she will call her work a drudgery. of home, who have to live in the chilling. I do not believe in having a parlor for company; but a living-romm where one what they do is always wrong, and what can have music, books or work, and can spend one's leisure time. Is New On-A friend of mine went for a visit to tario Boy frozen up? We were much inwhat I think must have been an up-to- terested in his letters. The carrot puddate farm. She told me she was ding is much lighter without flour, and astonished at the amount of work done I have never tried baking powder, Juanthere, but it was done so promptly and ita. If you wish it firmer add a few

HINTS FROM " PADDY."

Dear Dame Durden,-I have read with very much interest each week the letters from the different ones who contribute to this department. I have felt for some time that I would like to thank the member who wrote a very instructive article on how to make bread. It helped me very much, and showed me where my mistake was. Perhaps I might help on the good work a little by a few hints. If you dig up horse radish in November and put it in a keg or barrel, then cover with earth, you will find it as fresh and crisp as if it were freshly dug. I grated some yesterday, and was delighted with the way it kept; the tops were green.

I use up stale bread and old light-cake in pancake batter. Soak the stale bread in hot water, and heat up until fine. Add to batter and beat well. If you find you have too much for the amount of batter-you will know, for the cakes will be sticky upon cooking-add a little more milk or buttermilk and flour. They are delicious if made right.

Sour milk or buttermilk will take out iron rust.

Hoping these remarks will be of help to

RECIPES FROM "WRINKLES" FOR MAPLE-SYRUP SEASON.

Brown Flour Hot Cakes.-Three cups of brown flour, one cup of white flour, three cups of milk, two tablespoonfuls of lard or butter, one saltspoon salt, one tea spoon of soda, two teaspoons of cream tartar. Mix to a batter not very thick; drop a tablespoonful at a time into a baking pan, and bake in a rather quick

Buckwheat Pancakes. - Three cups of buckwheat flour, one cup of white flour, one saltspoon of salt, one tablespoon of sugar, warm water enough to make a rather thin batter, small half-cup of yeast, well stirred in. Mix in a large jug so that they can be poured into the frying pan; keep warm, and let rise five or six hours, if for tea, or overnight for breakfast. Put in a hot, covered dish as you fry them, and serve on hot

An old farmer in Bruichladdich, Islay, N. B., once went to have a troublesome tooth extracted. Said the dentist, after looking at the offending molar, "It is a very ugly one. I would advise you to have it out by the painless system. It is only a shilling extra." He showed the farmer the apparatus for admistering gas remarking that it would cause him to fall asleep for a minute, and before he awoke the tooth would be out. After a slight resistance, the sufferer consented, proceeding to open his purse. "Oh, never mind paying just now," said the dentist, kindly. "Hoots!" answered the cautious old Scot. "I wasna' thinkin' o' that, but if I'm gaen ta sleep I thought I wad like to count ma siller fust."

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Superfluous Hair There is positively nothing that will eradicate it forever but Electrolysis, Satisfaction guaranteed. A practically painless treatment, recommended by all up-to-

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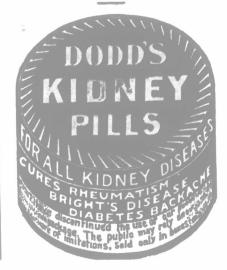
WE COME ECZEMA and all skin troubles GRAHAM DERMATOLOGICAL INSTITUTE, Dept. F, 502 Church St., Toronto. Tel. N, 1666. Estab. 1892.

The woman-No, I can't give you a meal. The Tramp-I didn't think you could, mum; you look too young and inexperienced to know how to cook.

Mrs. Bridey-I know you'll be pleased to hear this. I think I'll be able to save a little on our household expenses this week. Mr. Bridey-Well, dear, that will be a feather in your cap. Mrs. Bridey-(eagerly)-An ostrich leather?

"Mamma, what would you do if that great vase in the parlor should get broken?" said Tommy. "I should spank whoever did it," said Mrs. Banks, gazing serenely at her little son. "Well," said Tommy gleefully, "papa's broken

Wife-Henry, what makes you in such a furious temper? Hushand-I'm trying to read a Scotch dialect story. The plot is fearfully exciting, but I can't hurdle ver the language fast enough to keep up with the hero!



The LEAVENWORTH CASE

By A. K. Green.

CHAPTER XXII.—Continued.

"Oh, you know I have no opinion. I gave up everything of that kind when I put the affair into your hands."

"That the letter of which these scraps are the remnant was on Mr. Leavenworth's table at the time of the murder, is believed. That upon the body being removed, a paper was taken from the table by Miss Lavenworth, is also believed. That when she found her action had been noticed and attention called to this paper and the key, she resorted to subterfuge in order to escape the vigilance of the watch that had been set over her, and partially succeeding in her endeavor, flung the key into the fire from which these same scraps were afterwards recovered, is also known. The conclusion Lleave to your indexment."

sion I leave to your judgment."
"Very well, then," said I, rising, "we will let conclusions go for the present.
My mind must be settled in regard to the truth or falsity of a certain theory of mane, in order that my judgment may be worth much on this or any matter con-

nected with the affair."

And only waiting to get the address of his subordinate, Q, in case I should need assistance in my investigations, I left Mr. Gryce, and proceeded immediately to the house of Mr. Veeley.

CHAPTER XXIII.

The Story of a Charming Woman.

"You have never heard, then, any account of the circumstances which led to

his marriage?"

It was my partner who spoke. I had been asking him to explain to me Mr.

Leavenworth's well-known antipathy to

the English race.

"If you had," returned he, rousing up in his bed—he was not yet entirely recovered from his illness—"you would not need to ask me for this explanation. But it is not strange you are ignorant of the matter. I doubt if there are half-a-dozen persons in existence who could tell you where Horatio Leavenworth found the lovely woman who afterwards became his wife, much less give you any details of the circumstances which led to the marriage."

"I am very fortunate, then, in being in the confidence of one who can. What were those circumstances, Mr. Veeley?"

"It will aid you but little to hear; but since you desire it, you shall. Horatio Leavenworth when a young man was very ambitious; so much so, that at one time he aspired to marry a wealthy lady of Providence. But chancing to go to England he there met a young woman whose grace and charm had such an effect upon him, that he relinquished all thought of the Providence lady, though the prospect of marrying the one who had so greatly interested him, as she was not only in the humblest circumstances, but was encumbered with a child concerning whose parentage the neighbors professed ignorance and she had nothing to say. But as is very apt to be the case in an affair like this, love and admiration soon got the better of worldly wisdom. Taking his future in his hands, he offered himself as her husband, when she immediately proved herself worthy of his regard, by entering at once into those explanations he was too much of a

gentleman to demand. "The story she told was very pitiful. It seems that she was an American by birth, her father having been a wellknown merchant of Chicago. While he lived, her home was one of luxury, but just as she was emerging into womanhood, he died. It was at his funeral she met the man destined to be her ruin. How he came there she never knew, he was not a friend of her father's. It is enough he was there and saw her, and that in three weeks-don't shudder, she was such a child-they were married. In twenty-four hours she knew what that word meant for her; it meant blows. Everett, I am telling no fanciful story. In twenty-four hours after the girl was married, her husband coming drunk into the house, found her in his way and knocked her down. It was but the beginning. Her father's estate on being settled up, proving to be less than expected, he carried her off to England,

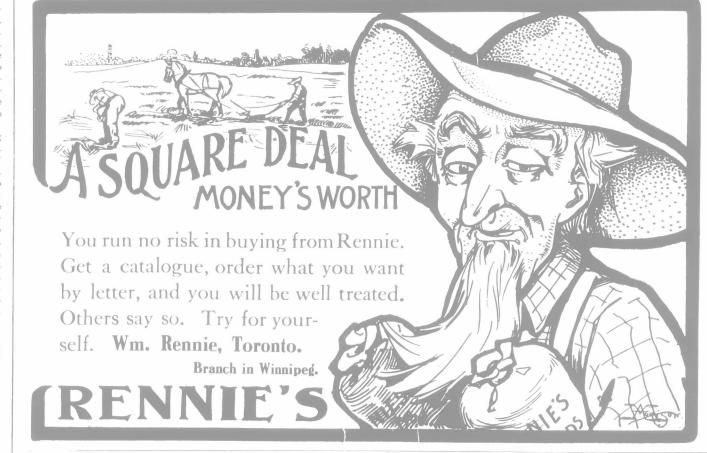
(Continued on next page.)

No Argument Will Convince a Women

that a flour is all right, if she can't make good bread with it. The one argument that wins every woman in favor of ROYAL HOUSEHOLD FLOUR is, that it never fails to turn out the most beautiful Bread and Cake and the most crisp and delicious Pastry when used according to the very simple "Royal Household" recipes. That one fact outweighs all the theories of two thousand years.

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J. A. SIMMERS.—Every reader of the "Farmer's Advocate" should write to the firm of J. A. Simmers, the wellknown seed merchants, of Toronto, for their magnificent seed catalogue. This annual publication should be in all the farm homes of Canada. It contains more than 100 pages, and is one of the most handsomely-illustrated books of this nature sent out by any firm in America. There is probably no seed used in Canada that is not listed in it, with full description, and price. It is now so common for buyers to order by mail that no one should hesitate about doing so-A letter to J. A. Simmers will receive the same attention exactly that would be given to a buyer entering the store. The seeds will be sent from most carefully-selected stock, and buyers can feel assured they are getting the best the market affords. Write at once for the

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where he did not wait to be drunk, in order to maltreat her. She was not free from his cruelty night or day. Before she was sixteen she had run the whole gamut of human suffering, and that, not at the hands of a coarse common ruffian, but from an elegant, handsome, luxuryloving gentleman, whose taste in dress was so nice, he would sooner fling a garment of hers into the fire, than see her go into, company clad in a manner he did not consider becoming. She bore it till her child was born, then she fled. Two days after the little one saw the light, she rose up from her bed and taking her baby in her arms, ran out of the The few jewels she had put into her pocket supported her till she could set up a little shop. After that, she lived as one born and bred as she had been might be supposed to do, in a situation so at war with her earlier training and natural instinct. As for her husband, she neither saw him nor heard from him, from the day she left him, till about two weeks before Horatio Leavenworth first met her, when she learned from the papers that he was dead. She was, therefore, free, but though she loved Horatio Leavenworth with all her heart, she would not marry him. She felt herself forever stained and soiled by the one awful year of abuse and contamination. Nor could he persuade her. Not till the death of her child, a month or so after his proposal, did she consent to give him her hand and what remained of her unhappy life. He brought her to New York, surrounded her with luxury and every tender care, but the arrow had gone too deep; two years from the day her child breathed its last, she too died. It was the blow of his life to Horatio Leavenworth; he was never the same man again. Though Mary and Eleanore shortly after entered his home, he never recovered his old light - heartedness. Money became his idol, and the ambition to make and leave a great fortune behind him modified all his views of life. But one proof remained that he never forgot the wife of his youth, and that was, he could not bear to have the word 'Englishman' uttered in his hearing."

Mr. Veeley paused, and I rose to go.
"Do you remember how Mrs. Leavenworth looked?" I asked. "Could you describe her to me?"

He seemed a little astonished at my request, but immediately said: "She was a very pale woman; not strictly beautiful, but of a contour and expression of great charm. Her hair was brown, her eyes grey—"

"And very wide apart?"

He nodded, looking still more astonished. "How came you to know? Have you seen her picture?"

I did not answer that question.

On my way downstairs, I bethought me of a letter which I had in my pocket for Mr. Veeley's son, Fred, and knowing of no surer way of getting it to him that night than by leaving it on the library table, I stepped to the door of that room which in this house was at the rear of the parlors, and receiving no reply to my knock, opened it and looked in.

replied I.

"Yes," thought world, a "Yes."
It see from the

The room was unlighted, but a cheerful fire was burning in the grate, and by its glow I espied a lady crouching on the hearth, whom at first glance I took for Mrs. Veeley. But upon addressing her by that name, I saw my mistake; for the person before me not only refrained from replying, but rising at the sound of my voice, revealed a form so noble in its grace, that all possibility of its being that of the dainty little wife of my partner fled.

"I see that I have made a mistake," said I, "I beg your pardon;" and would have left the room, but something in the general attitude of the lady before me restrained me, and believing it to be Mary Leavenworth, I inquired:

"Can it be this is Miss Leavenworth?"
The noble figure appeared to droop, the gently-lifted head to fall, and for a moment I doubted if I had been correct in my supposition. Then form and head slowly erected themselves, a soft voice spoke and I heard a low "Yes," and hurriedly advancing, confronted—not Mary with her glancing, feverish gaze and scarlet, trembling lips—but Eleanore, the woman whose faintest look had moved me from the first, the woman whose husband I believed myself to be even then

pursuing to his doom.

The surprise was too great; I could

neither sustain nor conceal it. Stumbling slowly back, I murmured something about having believed it to be her cousin; and then, conscious only of the one

about having believed it to be her cousin; and then, conscious only of the one wish to fly a presence I dared not encounter in my present mood, turned, when her rich heart-full voice rose once more and I heard:

"You will not leave me without a word, Mr. Raymond, now that chance has thrown us together?" Then as I came slowly forward, "Were you so very much astonished to find me here?"

"I do not know—I did not expect—"
was my incoherent reply. "I had
heard that you were ill; that you went
nowhere; that you had no wish to see
your friends."

"I have been ill," she said, "but I am better now, and have come to spend the night with Mrs. Veeley because I could not endure the stare of the four walls of my room any longer."

"I am glad that you have done so." said I. "You ought to be here all the while. That dreary, lonesome boarding-house is no place for you. Miss Leavenworth. It distresses us all to feel that you are exiling yourself at this time." I do not wish anybody to be dis-

tressed," she returned. "It is best for me to be where I am. It is not exile, A little girl is nor am I all alone. there, a child, one whose innocent eyes see nothing but innocence in mine. She will keep me from too great a despair. Do not let my friends be anxious; I can bear it." Then in a lower tone: "There is but one thing that utterly disturbs me, and that is my ignorance of what is going on at home. Sorrow I can bear, but suspense is killing me. Will you not tell me, then, something of Mary and home? I cannot ask Mrs. Veeley; she is kind, but has no real knowledge of Mary or me, nor does she know anything of our estrangement. She thinks me obstinate, and blames me for leaving my cousin in her trouble. But you know that I could not do therwise. You know—" her voice wavered off into a tremble and she did not conclude.

"I cannot tell you much," I hastened to reply, "but whatever knowledge is at my command is certainly yours. Is there anything in particular you would like to ask?"

"I would like to know how Mary is, whether she is well and—and composed."
"Your cousin is not ill," I returned,
"but I fear that I can hardly say she is composed. She is in great anguish, Miss Leavenworth. She is not only overwhelmed at the loss which has befallen her, but overcome with anxiety for you. You must not think of her as

being otherwise than troubled."
"You see her often, then?" said she.
"I am assisting Mr. Harwell in preparing your uncle's book for the press, and necessarily am there much of the time,"

replied I.

"My uncle's book!" The words came

in a tone of low horror.

"Yes, Miss Leavenworth. It has been thought best to bring it before the world, and—""

"And Mary has set you at the task?"

"Yes."

It seemed as if she could not escape from the horror which had overtaken her. "How could she? Oh, how could

she?"

"She considers herself as doing what her uncle would approve. He was very anxious, as you know, to have the book out by July; she is but fulfilling his wishes—"

"Do not speak of it," cried she, falling a step back; "I cannot bear it." Then as if she feared she had hurt my feelings by her abruptness, lowered her voice and said: "I do not, however, know of any one I should be better pleased to have charged with the task than yourself. With you it will be a work of respect and reverence; but a stranger—oh, I could not have endured a stranger touching it."

She was fast falling into her old horror, but rousing herself, murmured; "I wanted to ask you something; ah, I know—" and she moved a little so as to face me. "I wish to inquire if everything is as before in the house; the servants the same and—and other things?" "There is a Mrs. Darrell there; I do not know of any other change."

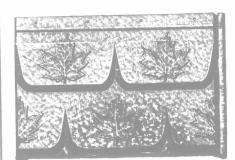
"Mary does not talk of going away?"
"I think not."

"But she has visitors? Some one besides Mrs. Darrell to help her bear her loneliness?"

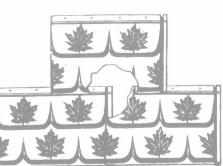
(To be continued.)

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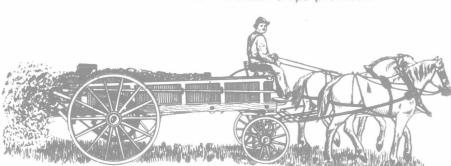
Corrugated Galvanized sheets are rapidly coming into use. They can be put on over rafters without any sheeting boards, and in this way the cost of a new barn with a Galvanized Roof is no more than when wood sheeting boards and wooden shingles are used. A good Galvanized Roof should easily last forty to fifty years, and besides is lightningproof and fireproof from the outside. Would you like us to give you names of farmers who have used Corrugated Sheets for covering their barns, so you can communicate with them? Write us about your requirements in new buildings, or repairing old ones, and we are sure that we can make you an interesting proposal. Our catalogues are mailed free, and we send samples by express, rebating express charges with first order.

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Ans.-Major C. C. Harbottle, Confederation Life Building, Toronto, is agent for a Liverpool company (Lloyds) that insures horses at 61 per cent. on the value, or \$65 per \$1,000, payable in advance. A health certificate from a reputable veterinarian of the district is required, together with the name, age, and registered number of the horse.

PORMING A SYNDICATE PRINCIPAL AND AGENT POSSIBLE FORGERY.

1. What is the proper course to take with regard to forming a syndicate for a stallion?

2. Are all advertising in your columns guaranteed responsible?

3. Are all firms responsible for their agents' acts?

4. Can a man be held responsible for a note that he has never signed, but whose name apparently has been traced from another paper?

OLD SUBSCRIBER.

Ans.-1. Having arranged as to parties, requisite capital, and terms generally, you should see a solicitor and have him prepare and attend to the execution of a suitable partnership agreement.

2. We take every precaution to protect our subscribers, and refuse many thousands of dollars worth of advertising from firms whose reliability we have reason to suspect; but manifestly cannot undertake to guarantee the integrity of all advertisers

3. Generally speaking they are, so long as the agent has kept fairly within the scope of the authority given him by his employers, or has not obviously exceeded the bounds of such authority.

4. Not unless it was done by his direction or with his consent, or there has been ratification by him either expressly

TRADE TOPICS.

A PATENT BARN FRAME.-Attention is directed to the advertisement in this issue of a patent barn frame, the inventor of which claims for it important advantages in the way of economy, efficiency and cheapness of construction. The question of saving timber in the erec tion of barns has become a vital one in his object in view should receive careful consideration and investigation. See the advertisement, and write for particulars.

ROOFING MATERIAL.-From the number of inquiries received at this office regarding building materials, particularly roofing, we would expect the half-page announcement of the Metal Shingle and Siding Co., Ltd., of Preston, Ont., to be read with eagerness. In their advertisement will be found testimonials by users of their safe-lock shingles, and further information, we doubt not, will be gladly supplied on application.

STARTLING CANCER CURE.-Ald. R. D. Evans, of Brandon, Manitoba, who advertises in this paper an effective cure for cancer, received the following letter from Rapid City under date of March

Dear Sir, Regarding the cancer which to a large lump on my neck, which caused me very great pain, I was advised by a friend who knew you to try your cancer cure, and I am glad I did. I am as well to day as ever I was and I have the cancer in a bottle of alcohol nounced it cancer, and told me the only

JOSEPH GALLOWAY, Rapid City P. O., Man.



Condensed advertisements will be inserted 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.

NUMBER of choice, healthy Barred Plymouth
A Rock cockerels "National Strain," bred from
a few hens selected for their good laying qualities
and large, well-colored eggs. W. C. Sheater, Bright,

BUFF Orpington eggs, \$1 per 15, \$5 per 100. E. Brown, breeder and importer, Haysville, Ont.

BUFF Orpingtons—Pure Willow Brook Farm strain. Bred true to type, to produce winter eggs. E4gs, \$2 per 15. W.O. Burgess, bcx 48, Queenston, Ont.

BARRED ROCK'S (exclusively)—Eggs for hatching from pens mated with four imported cocks, out of first-prize male bird at Beston, 1903. Selected eggs, \$1.50 per setting of 13. Prices queted on larger quantities. A. E. Sherrington, Walkerton, Ont.

ARRED ROCKS. Try a setting of eggs from our booked now. A. E. Sherrington, Walkerton, Ont. o

ARRED ROCKS. Try a setting of eggs from our booked now. A. E. Sherrington, Walkerton, Ont. o

ARRED Rocks exclusively. Eggs from prize stock, \$1 setting; fifty, \$2.50; per hundred, \$4. Miss E nily Spil bury, Colborne, Ont.

DUFF ORPINGTONS, At Central Canada Exhibition my Orpingtons won ten prizes; and again at Eastern Ontario Exhibition they won 9 prizes. Eggs, \$3.00 per 15. A. W. E. Hellyer, Ottawa, Ont.

GGGS from imported and prizewinning. Barred and White Rocks, White and Brown Leghorns, White Wyandottes, Buff Orpingtons, Black Minorcas. Write for prioss. William Manley, Brigden, Ont. RARM RAISED, prizewinning Buff Orpingtons, W. Rocks, Rose-comb White Leghorns, Bronze turkeys, Eggs, \$2 per setting. Wm. A. Rife, Hespeler. Ont.

LIOA SALE -Buff Orpingtons, Golden Wyandottes White Leghorns. Also eggs, \$1 per setting. William Daniel, Platteville, Ont.

MAMMOTH Bronze turkeys. A choice lot of heavy birds, bred from my imported toms. Stock from the 1st-prize Pan-American winners. Pairs and trios mated not akin. R. G. Rose, Glan worth. Ont.

WHITE WYANDOTTES, great winter layers. Strongly-festilized eggs. \$1.50 per 15. Incu-pator lots special. Chas. A. Goulding, Vinemount

WHITE WYANDOTTES - Second Ostario cockerel heading first pen. Write for eggs. Aaron Witmer, Berlin, Ont. WHILE Wyando te and Buff Orpington eggs

W \$1.50 per setting. Cash with order. C. W. B-aven, 'Pinegrove," Prescott, Ont. o

WHITE WYANDOTTE eggs. Pen headed by grand Duston cockerel. W. D. Monkman Rondhead, Ont.

WHITE Leghorns and White Wyandottes. On-tario's leading strains. Eggs, \$2 per 15. Satisfaction guaranteed. Write for circular, Ernest Charlton, fiderton, Ont.

WORD'S Fair winners. Eggs for hatching from grand pens, including all my winners at Worl's Fair, St. Louis; Ottawa, Sherbrooke, Quebec, and Eastern Ontario. Blue Andalusian, Cornish Indian Game, Black Cochin. Eggs, \$3; two settings, \$5; Barred Rock and Light Brahma eggs, \$2; two settings, \$3. Chas. LaRose, Cornwall, Ont.

WHITE Wyandotte eggs, from fan cy and graid winter-laying strains, mated to imported Duston and Martin cockerels; large size and perfect shape; \$1.50 per 15. Incubator eggs special. James Smith, Trout Creek Farm, Millgrove.

The INCIDATODO Daniels Are the latest most modern in



G. J. DANIELS. 196 to 200 TORONTO

MY BARRED ROCKS and BUFF ORPINGTONS are famous for laying, size, and coloring. Healthy, vigorous, scientifically fed and mated, Egg., \$2. During April express paid. Care-fully packed. 0 REV. A.E. SANDERSON, Chesterville Ont.



"What is the name?" asked the minister of the child's father. "John James George Washington Fitzhugh Lee Blaine Harrison Smith," answered the father. The old minister jotted down the names, and then, walking to the baptismal font, a crockery washbasin, said to the janitor: "Mose, get some more water. There ain't half enough to baptive this child if we have to take in all his names."

ED 1866

prizes; and they won 9 E. Hellyer, ng. Barred n Leghorns, ck Minorcas. den, Ont. Orpingtons, rns, Bronze m. A. Rife,

Wyandottes, per setting. hoice lot of orted toms. an winners. Rose, Glan-

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dottes. On-\$2 per 15. r circular. tching from winners at rooke, Que-lusian, Cor-zs, \$3; two rahma egge, rnwall, Ont. and graid o imported and perfect

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ORS atest and artificial f turkeys, nd ducks, orget we the Dantors to be to the We man-We man-Chas. A. odel Incu-Brooders. Il line of is out, and

DRONTO PINGTONS coloring and mated, aid. Care ville Ont i in man

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The Curtain Rises On the World by the time of the Every Elgin Watch is fully guaranteed. All jewelers have Elgin Watches. "Timemakers and Timekeepers," an illustrated history of the watch, sent free upon request to ELGIN NATIONAL WATCH CO., ELGIN, ILL.

QUESTIONS AND ANSWERS. Miscellaneous.

MORTGAGOR'S LIABILITY ON COVENANT.

A has a mortgage on B's farm for \$2,000, and the farm is sold under mortgage for \$1,500. Can A hold B's chattels for the remaining \$500? ONT.

Ans.-Not directly. But A may sue B for the amount of the deficiency on the mortgage sale, and, having obtained judgment therefor, could have such judgment enforced by seizure and sale under execution of B's chattels, with exception, of course, of such as are exempt.

GETTINC OUR TIMBER.

A sells B all the fallen timber in his bush for \$25, and gives him from May 1st, 1904, till March 1st, 1905, to get it out, and sells the farm to C, who gets possession on April 1st, 1905. B fails to get his wood all out by March 1st. A is willing to let B have the remainder of his wood, but C is not.

1. Can C prevent B from taking it after March 1st?

2. Can he prevent him from taking it SUBSCRIBER after April 1st? Ont.

Ans.-1. No. 2. Yes.

RAILWAY MATTERS.

A branch railroad runs through my premises, the sleepers of which are very old and decayed, which in a dry time are quite inflammable, and on more than one occasion my family extinguished fires supposed to be set by live coals dropping on them from the locomotive. On both sides of the road large quantities of dry brush had been accumulating for years. he road runs nearly north and In a very dry time last summer, when the wind was from the west, a fire started on the east side of said road, which caused damage to my property to the extent of several hundred dollars. On a close examination of the origin of the fire, two sleepers of the road about twenty yards south from the brush on the side ignited were found party burned, and indications where they had been ex-tinguished by some person having shovelled earth on them, and on enquiry this fact has been ascertained. All the presumptive evidence shows the fire originated from these two sleepers having been ignited by fire from locomotives, as no buildings, or so far as known no persons, either with or without fire, were near the place at the time, except the engine, cars, etc.

1. What is necessary for me to prove to recover damages?

2. Is it necessary that I should absolutely prove that the fire could in no other way have been started than by the locomotive?

3. Does the Railway Act of 1903, Chap 58, apply to all railways, or only to main lines? N. B.

Ans.-1. Mainly the facts outlined in your statement.

2. No. Evidence of what you have stated in that connection would probably be sufficient to shift the burden of proof to the defendants, and render it incumbent upon them to rebut the presumption so raised in your favor.

Free Dairy Course at the O. A. College For Milk Producers. Milk Dealers and Milk Inspectors,

APRIL 17th to 27th, 1905.

This ten-day course is designed to help the man on the farm, who is producing mik for creameries and cheese factories and for town trade, to produce better, cleaner and more economical milk, the dealer to sell better and purer milk in town or city, the milk inspector in towns or cities to know how to test milk properly and what to expect in the way of clean cows and stables. The dairy herd, stable and laboratories of the College will be available for instruction and experimental work. A course of ten lectures will be given. For further information, apply to 0

H.H.DEAN. Prof. Dairving. O.A.C. Guelph.

H.H. DEAN, Prof. Dairying, O.A.C., Guelph.

BISSELL'S STEEL ROLLER



With the ROLLER BEARINGS and low-draught bracket. It runs like a bird. Light of draught and easy on horses' necks. It will pay any farmer to learn all about the "BISSELL" before ordering a land roller. Send us your name and address for full particulars. T. E. BISSELL, DEPT. W., ELORA, ONT. None genuine without the name "Bissell."

Do You Need a New Barn?

If you do, and would like to save several hundred dollars, and yet have a building that will be as strong as a bridge and have no interior poster to obstruct the floor, write for particulars of my patented barn frame.

GEORGE WARDLE,

Tilsonburg



Advertisements will be inserted under this such as Farm Properties, Help and pations Wanted, and miscellaneous suver The MS—Three cents per word each inser thore. Each initial counts for one word and feates for two words. Names and addresses to counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

A PENNSYLVANIA Dairy to lease—First-class opening for good dairyman. The owner of 300-acre dairy farm, close to large manufacturing city, wishes to retire, and will lease the whole dairy, in running order, to the right man. Location in Pennsylvania, near Pittsburgh. A successful dairyman with good character and business ability preferred. Address, "Penn. Dairy," care Farmer's Advocate, London, Ont.

BABY for adoption. Write J. J. Kelso, Toronto

TINSENG—Canadian roots best. Write E. Beattie, Highoate.

Ttle, High ate.

SWAN RIVER FARM.—My husband being deceased, and finding renting unsatisfactory, I offer, cheap, 320 acres first-class improved land.

For further information write Mrs. N. Gable, Swan

TRAWBERRY PLANTS—A number of leading varieties for sale. Write for list and particulars. Chas. S. Moore, Stanbridge East, Que. WANTED-St. Lambert Jersey bull, old enough for service. Send descriptions and price. F. Jackson, Downsview

IT ALWAYS PAYS TO ion so raised in your favor. 3. It applies to all Dominion railways.

LIABILITY OF STOCKHOLDERS AND DIRECTORS.

1. Are shareholders in a joint stock company, limited, legally responsible for more than the amount of the stock they hold in the company?

2. To what extent are directors of such companies responsible?

Ans.-1. No. 2. For the due payment of the wages of certain employees of the company; for non-use of word "limited"; for failure to make periodical returns to the Government; for declaring dividends, when same are not warranted by condi-

tions or earnings of the concern; for false statements in prospectus inducing investment in shares of the company; for mismanagement in certain respects of the company's business. The foregoing is not an exhaustive statement of the liabilities that may be incurred by such directors, but will serve to indicate in a general way the nature and extent of same.

ALTERING DOCUMENTS - COMPUTATION OF INTEREST.

1. Is a note or a mortgage any good if anything is put on it after it is signed? 2. A gives B a mortgage. Money was not paid till some times after it was signed. Can B collect interest from time mortgage was signed? ONT.

Ans.-1. It may be; and on the other hand it is possible that such an addition to the instrument or alteration thereof would entirely vitiate it. It depends upon who does it, and under what circum-

stances. 2. Generally speaking, interest is only payable from the date of the actual advance of the principal money; but the indenture or mortgage itself may cover the point and expressly provide for a reckoning of interest from the date of the document or of its execution or otherwise; or there may be an independent agreement on the subject.

SCRUB-BULL NUISANCE.

We have a herd of grade Holsteins and keep a pure-bred bull to use in the herd, while a neighbor has a mixed herd and keeps half a dozen or more bulls, from one year old up to three years old, that roam over his farm and through the woods, with the result that, perhaps, a valuable cow will drop a calf begotten by one of these brutes, for it is impossible to keep them out of our pasture. We have asked this man to take care of his bulls, but he does not. What is to be done with a man like this, and especially with the bulls he keeps? STOCK. Ont.

Ans.-Your neighbor in keeping such animals does so at his peril, and if they trespass upon your premises as described and with the consequences suggested, he would be liable for the damages sustained, and same could be recovered by

MILCH COWS KEPT ON SHARES.

We are taking some cows on shares for ear. Wesdo all work and feed them. What share of milk should we give? A M. A.

Ans .- So many factors in the case are left out, for instance, at whose risk the cows are kept, what line of dairying is engaged in, etc., that to give a satisfactory answer, which in any case would be hard to do, is impossible. A good deal would also depend on the class of cows kept. There are many which would not pay for cost of attendance and keep, while others would return handsome profits. One-fourth of the milk to the owner would, we think, be too much, but might in some circumstances be given.

TRADE TOPIC.

FIRST-CLASS APPLE TREES .- Now is the time to order fruit trees, ornamented shrubs, etc., for the spring's planting, and, perhaps, all things considered, there has not for years been a more promising time to set apple trees. Apple orchards are going to be good property fifteen years hence, and no one with a piece of suitable land need be afraid to plant good young apple tree stock. For apple trees that are apple trees, write A. G. Hull & Son, St. Catharines, Ont.

Mrs. F. V. Currah, Windsor, Ont., will send free to any woman who suffers from female weakness or painful periods a sample of the remedy that cured her.

Drowsiness After Meals

A PERSISTENT SYMPTOM OF NER-VOUS DYSPEPSIA-CURE IS OBTAINED BY USE OF

Dr. Chase's Nerve Food

Many a sufferer from chronic dyspepsia dates his ailment from the time he began to feel "drowsiness after meals."

The blood is weak, and there is not sufficient nerve force to carry on the work of digestion and supply the vital force required for mental and physical activity.

Headache, dizzy spells, defective memory, inability to concentrate the mind, brain fag, irritability of temper, nervousness and sleeplessness are the resulting symptoms.

Owing to defective digestion the body is not deriving proper nourishment from the food, and some other method of obtaining strength must be employed.

In Dr. Chase's Nerve Food the most effective blood-building and nerve-restoring elements of nature are contained in condensed form, so as to be easily taken into the blood.

Under this treatment you soon find that the appetite is sharpened, digestion improved, and the vitality of mind and body greatly increased.

It takes time to thoroughly cure dyspepsia and its accompanying symptoms, but you can be certain that each dose of Dr. Chase's Nerve Food is of some benefit to you, and that the cure will be complete and lasting.

Dr. Chase's Nerve Food, 50c. a box, at all dealers, or Edmanson, Bates & Co., Toronto. Portrait and signature of Dr. A. W. Chase, the famous recipe-book author, are on every box.

"Paddy," said a tourist at Killarney, "I'll give you sixpence if you'll tell me the biggest lie you ever told in your

"Begorra, your honor's a gentleman! Give me the sixpence."

Two men ordered a coffin for a mutual friend. Said the Undertaker: "I am sorry poor Tim is gone. He had a famous way of drinking whiskey. What did he die of?" Replied one of the men: "He is not dead yet at all; but the doctor says he will be before the morning; and, sure, he should know, for he knows what he gave him."

Till Dodd's Kidney Pills Cured His Kidney Troubles.

Now He's Perfectly Healthy and Able to Work -Gives all the Credit to the Great Canadian Kidney Remedy.

Wapella, Assa., N.-W. T., March 27th.-(Special).—Cured of Kidney Disease that had laid him up for over a year, Mr. Geo. Bartleman, a well-known man here, is loud in his praises of Dodd's Kidney Pills, for to them and nothing else he claims he owes his cure.

'Yes, I had Kidney Trouble,' Mr. Bartleman says. "I had pains in my back and in other parts of my body and though the doctor did what he could for me, I grew worse till I was unable to

"Then I started to take Dodd's Kidney Pills, and I took them all winter and summer while I was unable to work. I took in all twelve boxes, and now I am perfectly healthy. My pains are all gone and I am able to work. I heartly recommend Dodd's Kidney Pills to all sufferers from Kidney Disease."

Dodd's Kidney Pills always cure the Kidneys. Healthy Kidneys strain all impurities, all seeds of diseases, out of the blood. That's why Dodd's Kidney Pills cure such a wide range of diseases, including Bright's Disease, Rheumatism and Urinary Troubles.

Steele, Briggs' Seeds

are the Best that grow.

YOU can't afford to waste weeks and months of time and energy in growing so called cheap or Bargain Seeds. What you want is FULL SIZED PACKAGES at popular prices. Seeds that are TESTED AND TRIED. No disappointment with them. Your money's worth every time. If you want to make a success of your year's work, insist on getting

STEELE, BRIGGS' SEEDS

not merely because we say so, but because they are known from one end of Canada to the other to be absolutely reliable. You get what you think you are getting every time. Never any guesswork as to results. We make sure in advance that the seeds are right, and guarantee values to be always the best.

If your dealer can't supply you, send to us for Catalogue, and order direct by mall.

TORONTO, Ont., HAMILTON, Ont., and WINNIPEG, Man.



.10 Per Acre

FINEST WHEAT LAND IN

.10

Excellent Water. Fertile Soil. **Bountiful Crops.** Average Crop for 5 years

25 bushels per acre.

Cattle run out all winter.



IN TOWNSHIP 21, RANGE 21.

No Rust. Good Transportation Facilities. C. P. Railway to heart of the district.

No Early Frosts.

Steamboats on the lake. G. T. P. surveyed through the northern portion.

FREE: Maps, Books. Write for cheap rates and information.

QUESTIONS AND ANSWERS. Miscellaneous.

PICKLES VINEGAR-SHOE-GREASE

Mr. J. S. K., Cataraqui, asks how to make (1) cucumber pickles, (2) cider vinegar, (3) good shoe grease.

Ans.-1. Take the cucumbers from the brine and rinse in clear, cold water. If they are very salty, it may be necessary to soak them well. Drain, cut in pieces. and put in a granite kettle. Pour over them weak alum water, using one teaspoonful of alum for every quart of water needed to cover the pickles. Set on stove and bring to scalding point, then shove to the back of the stove and let stand well covered for two hours; drain and drop into ice-cold water. To make the pickle vinegar, for every quart of vinegar needed to cover the pickles use two teaspoons cinnamon, two of cloves, one of celery seed, one of mace, a bit of horseradish, a quarter teaspoon mustard seed, one cup sugar, and a pinch Mix the spices toof cayenne pepper. gether dry, and tie in a muslin bag. Heat the vinegar to boiling point; put in spices and sugar, and boil for fifteen minutes. Drain the pickles out of the ice water; put into jars, and cover with the hot vinegar. Some of the spices may be omitted, if desired, but the vinegar must be of good quality.

2. Take cleaned and scalded barrels and half fill with the cider. Leave the bung open, except for a thin muslin covering to keep out the dust. Set in a warm place-about 70 degrees is the right temperature—and leave until it has fermented for a month. Now, if

Money Maker On the Farm

When you buy a Cream Separator you cheat yourself if you don't get the machine that makes and saves the most money for you. Cream, repairs and oil—all represent money.

Ehe United States Cream Separator

holds the world's record for clean skimming-saves cream every day that other separators lose.

Substantial and simple-extremely durable. No joints to work loose, no ratchet pin to break off, no exposed gears to be injured—no

Perfect adjustment of working parts—no oil wasted. You can't make your cows pay you as they should without a U. S. Cream Separator. Write for free illustrated catalogue to-day.

The Vermont Farm Machine Company BELLOWS FALLS VERMONT

Warehouses at Chicago, Minneapolis, Omaha, La Crosse, Wis., Sioux City, Ia., Kansas City, Mo., Salt Lake City, Utah, San Francisco, Cal. Pertland, Ore., Buffalo, N. Y., Portland, Me., Montreal and Sherbrooke, Que., Hamilton, Ont. Address all letters to Bellows Falls, Vt.

ADVERTISE IN THE ADVOCATE

possible, add some old vinegar and a little "mother." If this cannot be done, the vinegar will be much longer in the making. "Mother" can be started by putting a mixture of one-half old vinegar and one-half hard cider in a shallow crock and leaving it exposed in a place where the temperature will be about 80 degrees. In a few days, a thin scum will form. Remove this, and lay it gently on the surface of the cider in the barrels. Do not stir it in. If the temperature is kept right, the fermentation should now be completed in about six weeks. When it is made, strain it into clean barrels, put in the bung, and keep in a cool

3. The following recipes for water-proof boot-grease have been recommended: (1) Neat's-foot oil and castor oil, equal parts of each; shake well. (2) Two ozs. heeswax, 2 ozs. tallow, 2 ozs. paraffine, 1 tablespoon lampblack; melt all together and stir well. Apply warm with a brush, and, when cold, polish.

NOTES GIVEN FOR SHARES.

A few years ago an agent representing a certain porkpacking company canvassed this section, selling shares in that company, promising in return for money raised to erect and equip a cold-storage plant to enable them to dispose of their product to better advantage. The company failing to do as promised, are the people who gave promissory notes Habla for same? ENQUIRER

Ans.-Probably not, if the notes are still held by the company; but it may have effectually guarded itself in some way from being bound by such or like promises or representations by its agents. It would be necessary to know all the circumstances in order to give a definite

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A Dollar's Worth Free To Any Rheumatic Sufferer

a tu.. dollar's worth free to try.

I willingly make this liberal offer because I know that Dr. Shoop's Rheumatic Remedy may be relied upon ALWAYS to bring the utmost relief that medicine can. Years before I discovered this remedy, I studied the nature of Rheumatism. For Rheumatism is really

Crystallized Poison!

Your blood is always full of poison-the Your blood is always full of poison—the poison you eat and drink and breathe into your system. It is the purpose of the blood to absorb and carry off this very poison. And the kidneys, which are the blood filters, are expected to cleanse the blood and send it back through the system clean, to gather more poison which they, in turn, will eliminate.

can do.

Rheumatism includes lumbago, sciatica, neuralgia, gout—for all these are the re-

I ask no deposit—no reference—no security. There is nothing to risk—nothing to promise—nothing to pay, either now or later. Any Rheumatic sufferer who does not know my remedy may have a tu. dollar's worth free to try.

I willingly make this liberal offer belief is rare.

I spent twenty years in experimenting before I felt satisfied that I had a certain remedy for this dread disease—a remedy which would not only clean out the poison, but one which would stop its formation.

Certain Relief.

The secret lay in a wonderful chemical I found in Germany. When I found this chemical, I knew that I could make a Rheumatic cure that would be practically certain. But even then, before I made an announcement—before I was willing to put my name on it—I made more than 2,000 tests! And my failures were but 2 per cent.

your system. It is the purpose of the blood to absorb and carry off this very poison. And the kidneys, which are the blood filters, are expected to cleanse the blood and send it back through the system clean, to gather more poison which they, in turn, will eliminate.

But sometimes the kidneys fall. And sometimes, from some other cause, the blood gets so full of poison that they cannot absorb it all. This is the start of Rheumatism. The poison accumulates and crystallizes. The crystals look like little grains of sugar or of fine white sand. The blood carries them and they increase in size. Then, when it can carry them no longer, it deposits them in a joint—on a bone—anywhere.

This German chemical is not the only ingredient I use in Dr. Shoop's Rheumatic Cure—but it made the remedy possible—made possible an achievement which, I doubt not, could have been made in no other way.

This chemical was very expensive. The duty, too, was high. In all it cost me \$4.90 per pound. But what is \$4.90 per pound for a REAL remedy for the world's most painful disease?—for a REAL relief from the greatest torture human beings know?

I don't mean that Dr. Shoop's Rheumatic Cure—but it made the remedy possible—made possible an achievement which, I doubt not, could have been made in no other way.

This chemical was very expensive. The duty, too, was high. In all it cost me \$4.90 per pound. But what is \$4.90 per pound for a REAL remedy for the uman beings know?

I don't mean that Dr. Shoop's Rheumatic Cure—can turn bony joints into fiesh again—that is impossible. But it will drive from the blood the poison that causes pain and swelling, and then that is the end of the suffering—the end of Rheumatism. That is why I can afford to spend the FIRST dollar that Rheumatic sufferers the world over may learn of my remedy.

Simply Write Me.

Simply Write Me.

Rheumatism includes lumbago, sciatica, neuralgia, gout—for all these are the results of rheumatic poison in the blood.

Plainly, the first thing to do is to remove the poison. But this is not enough. The FORMATION of the poison must be stopped, so that nature may have a chance to dissolve and eliminate the crystals which have already formed. Unless this is done there can be no cure—no permanent relief.

I searched the whole earth for a specific for Rheumatism—something that I or any physician could feel safe in prescribing—something that we could count on not only occasionally, but ALWAYS. For the Mild cases are sometimes cured by a single package.

Simply Write Me.

The offer is open to everyone, everywhere, who has not tried my remedy. But you my but kerf on your aruggist, which he will accept as gladly as he would accept a dollar. He will hand you from his shelves a standard-sized package, and he will send you my book on Rheumatism beside. It is free. It will help you to understand your case. Address Dr. Shoop, Box 52, Racine. Wis.

GOSSIF

James Sharp, of Rockside P. O., Ont., offers his Aberdeen-Angus stock bull (1st at Toronto) and four bulls of his get. See advertisement.

For hatching eggs of Barred Rocks and Buff Orpingtons (utility strains), corsespond with A. E. Sanderson, Chesterville, Ont.

If you want to get unquestionably purebred Barred Rock eggs for hatching, write to A. E. Sherrington, Walkerton, Ont., whose flock of 70 fine female birds is mated with four large, strong, wellbarred males, from the first-prize male bird, Boston, 1903. Barred Rocks is the only breed kept. See his advertisement in this issue.

Mr. James Laidlaw, ex-M. P. P., of He Guelph, Ont., died on March 19th. was a progressive and enterprising farmer, and took a keen interest and an active part in the work of agricultural societies. He represented the riding of South Wellington in the Ontario Legislature for many years.

A priest once threatened a bibulous parishioner that if he did not reform he would change him into a mouse. "Biddy, me jewel, I can't believe Father Pat would have that power over me; but, all the same, you might as well shut up the cat."

TRADE TOPICS.

TO BENEFIT THE MILK TRADE. From April 17th to 27th, there will be a free ten-days' course at Guelph Dairy School for the special benefit of those concerned in the milk business. It is intended to help the producer, the milk dealer and the city or town milk in-We believe this is a highly commendable move in the interests of good health, and the more general production of wholesome (therefore more valuable) milk. A large number should avail themselves of this opportunity. Write to Prof. H. H. Dean, O. A. C. Guelph.

BEFORE THE BUSY SEASON BE GINS .- There are but few cattle and yet a smaller percentage of young horses at this season of the year that are not lousy. If your colts and cattle are rubbing, and the hair is coming off in spots, you need no further evidence that their winter coats are full of lice. You should need no reminder that it is folly to expect your stock to thrive and do well, no matter how generously you feed them, if they are kept busy fighting these tiny insects. One bushel of corn will give you greater gain on cattle free from lice, than you can hope to get on four bushels fed to lice-infected cattle. The three bushels wasted in feeding lousy cattle would, with corn at 50c. pay for one gallon of Zenoleum delivered at your station.

Mix up a solution (Zenoleum mixes perfectly in water without stirring), and go over your animals with a spray, brush or sponge. Zenoleum not only destroys lice, but also cleanses the skin and hair and disinfects any scratches or sores that may be present.

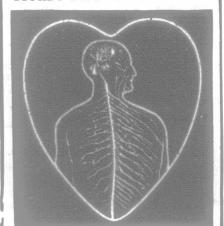
One gallon of Zenoleum will make 30 gallons of lice-killing dip, thus costing you 5c. per gallon. Thirty gallons of dip will treat 25 animals twice, which will guarantee you freedom from lice on all animals thus treated.

The first treatment will destroy all lice on the animals at the time of application, but will not destroy unhatched nits. The second treatment, not over ten days later, will destroy all the second hatching. As a business proposition, can you afford to feed lousy animals? Answer no, and send in your order for a shipment equal to your needs. Do this before the plowing and planting begins. You will not have time to attend to it

We will deliver Zenoleum to your railroad station at the following prices: one gallon, \$1.50, express paid; two gallons, \$3, express paid; three gallons, \$4.50, express paid; five gallons, \$6.25, freight paid. Write the Zenner Dishfectant Company, 118 Bates Street, Detroit, Michigan, or Brampton, Ontario, for their "Veterinary Adviser and Piggies' Troubles," both of which will be sent free.

MILBURN'S

Heart and Nerve Pills.



Are a specific for all diseases and dis-orders arising from a run-down condi-tion of the heart or nerve system, such as Palpitation of the Heart, Nervous Prostration, Nervousness, Sicalias-ness, Faint and Dissy Spells, Brain Fag. etc. They are especially beneficial to women troubled with irregular mea-sturation.

Price 80 cents per box, or 8 for \$1.36. All dealers, or TER T. MILEURE Co., LIMITED. Toronto, Ont.

WILL LEAVE TORONTO EVERY TUESDAY

DURING MAROH AND APRIL

AT 9 P.M., FOR

MANITOBA AND THE

NORTHWEST

ViaGrandTrunk to NorthBay, thence Canadian Pacific. A colonist sleeper will be attached to each train. Passengers traveling without live-stock should take the train leaving Toronto at 1.45 p. m. Train leaving Toronto at 9 p.m. is for passengers traveling with stock.

Full particulars and copy of "Western Canada" from any C. P. R. agent, or C. B FOSTER, D. P. A., Toronto.

HIGH-CLASSHEREFORDS

We have for sale the following chrice young stock which have been bred from imported stock. Intend which have been bred from imported stock. Intending buyers will do well to inspect the following: 15 young bulls, 20 young helfers, and 15 cows; also 20 Barred Plymouth Rock cockerels. Correspondence invited.

A. S. HUNTER, Durham, Ont.

Oured to Stay Cured.

Attacks stopped permanently. Cause removed. Breathing organs and nervous system restored. Symptoms never return. No medicines needed afterwards. 21 years of success treating Asthma and Hay Fever. 58,000 patients. Book 57F Free. Very interesting. Write P. HAE OLD HAYES, Buffalo, N.Y. o

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. 0

FOR SALE:
Royal Tom, registered Clydestale Stallion, and imported-bred, rising 3 years. Beautiful color and first-class colt. For further particulars, write to WILLIAM FO3TER, Weston P.O. o

Indigestion cured to stay cured by using Satis Capsules. 50c. box by mail.

Booklet free.

BATIS REMP DY CO.,
P. O. box 156 Calif. P. O. box 156, Galt, Unt.

Advertise in the Advocate

Mild cases are sometimes cured by a single package. On sale at forty thousand drug stores. Dr. Shoop's Rheumatic Remedy



I will show you FREE how to cure yours

"I was helpless and bedridden for years from a bad rupture. No truss could hold. Doctors said I would die if not operated upon. I fooled them all and cured myself by the Rice Method. I advise all runtured persons to use this method," writes Mr. Robt. Howard Muskoka Co., Ont. A Free Trial of this marvellous Method sent Free to all who write at once, giving description of their case. Thousands have been tured and IT WILL CURF YOU. Write to-day.

Dr.W. S. Rice, 23 East Queen St. Toronto, Ont.

LAFAYETTE STOCK FARM

J. Crouch & Son, the Great Importers, of Lafayette, Indiana,



and the largest importers in the world of

GERMAN COACH, PERCHERON and BELGIAN STALLIONS,

have just received at their new sale barns, Bernard House, London, another car of Percheron, Belgian and German ('oach stallions. All are imported from France, Belgian and Germany, and are the largest prizewinners of 1904. We exhibited 100 head at the St. Louis World's Fair, and we have won more prizes in 1904 than all others combined. We guarantee every horse to be satisfactory, sure breeders, and back them up by a responsible guarantee. We sell nothing but good sound customers good. customers good.

MESSRS. U. V. O'DANIEL and R. P. WATERS, managers and salesmen, London, Ont

ADDRESS: J. CROUCH & SON, LONDON, ONT.

Have just received a new importation of 131 head—Percherons, Belgians and German Coach Horses.

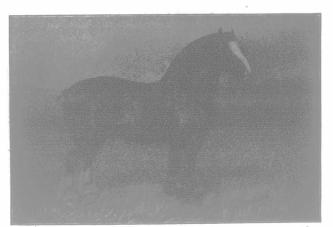
Special Notice to Our Readers.

When writing any advertiser in this issue kindly state plainly that you saw Ad. in the

FARMER'S ADVOCATE AND HOME MAGAZINE.

ALEX. GALBRAITH & SON,

JANESVILLE, WISCONSIN,



have on hand a magnifi-cent collection of

CLYDESDALES

Also a few choice

Suffolks, Percherons, Belgians AND

Hackneys

Prices, terms and guarantee to suit the buyer.

Twenty-five years in the front rank; of importers. Address as above. Send for new

Imported Clyde, Shire and Hackney

STALLIONS.



A few left on hand for sale that I wish to close out at from \$600 to \$1,000 each. These stallions are all bred from the best sires of Scotland and England. Such noted sires as:

King of Fashion (12195), by Baron's Pride (9122). Prince of Kyle (7155).

Harbling Harold (15649), by Harold (4629). Gunthorpe Advance (13136), by Bar None (2388).

J. B. Hogate, Sarnia, Ont., or Lennoxville, Que.

125 Percheron, Shire and Hackney .. Stallions and Mares ..

At the World's Fair at St. Louis I won more Premier Championship awards than any other exhibitor of live stock; I won every Premier Championship offered on Hackneys, also every Gold Medal but one. At Chicago International, 1904, on 20 head I won 34 prizes

I HAVE THE GOODS and will pay intending buyers' R. R. fare here from any part of Canada, sell you a good Stallion for \$700 to \$1,000, or choice of my barns for \$1,400, delivered in your town. I will guarantee stallions. I will sell against death for two years, and to get 60% mares in foal.

Time of payments made to suit the purchaser.

LEW W. COCHRAN, 607 West Main St., Crawfordsville, Ind.

You Can Kill Mustard Absolutely Free

in a field of growing wheat without injuring the grain, through using the

Spramotor

The proof is positive and the results . sure. The improvement in the crop will more than repay you for the trifling expense and the investment in the Spra. motor. Write for full particulars; free

SPRAMOTOR CO., 68-70 King St., Lendon, Ont.



Agents Wanted



with 20th Century Clipper PRICE \$7.50
They feel better, look better, work better, and are less liable to catch cold. Don't let your horses stand in the barn all night with a heavy damp coat of hair on. It weakens them and they loes flesh. If clipped in one fourth the time. Weighs only 15 lbs. Clips borse in 30 minutes. Send for Catalogue H CHICAGO FLEXIBLE SHAFT CO...

TO SECURE THE BEST RESULTS

QUESTIONS AND ANSWERS. Veterinary.

SALIVATION.

Cow slavers while chewing her cud. She eats well and thrives well. .I had her teeth examined, and the dentist could find nothing wrong. She has a great appetite, and will eat anything. E. A.

Ans.-Salivation is in some cases mere ly a habit, as it appears to be in your case. In other cases, it is due to some trouble in the mouth, and in others to some irritant weeds in the hay. Have her mouth examined again, and if nothing can be found wrong with the teeth, cheeks nor tongue, change the hay, and if the salivation continues, we must conclude that it is simply a habit, and as she is doing well, there is no occasion

LAME MARE.

Mare got kicked on the stifle in October, and the joint oil escaped. this stopped, and the wound healed. In about six weeks, it swelled and broke again. It again healed, but the joint remained swollen, but she seemed to be doing well. Three days ago, the whole leg swelled; is very sore, and she is very A. L. P

Ans.—This is a very serious case, and may prove fatal. If there is a veterinarian within reasonable distance, would advise you to send for him; but, if not, you will have to treat yourself. The recurrence of the swelling and soreness is due either to a wounded and decaying bone, a splintered bone, or to allowing the original wound to heal up externally before the cavity had filled. If she cannot place any weight on the limb, put her in slings. Bathe the leg, especially around the joint, long and often with hot water, and after bathing, rub with camphorated liniment, with which your druggist will supply you. It is possible this may dissipate the swelling. but it is probable pus is forming, and if so, it will break out again. If so, flush the cavity out three times daily with a five-per-cent. solution of carbolic acid until healed. There will in all probability be a chronic thickening, which repeated blistering will reduce some. I expect there will be a decided change in some way before you see this.

BRITONS, HOLD YOUR OWN!

Welcome, welcome with one voice. In your welfare we rejoice: Sons and brothers that have sent From isle, and cape, and continent, Produce of your field and flood, Mount and mine and primal wood Works of subtle brain and hand, And splendors of the morning land, Gifts from every British zone, Britons, hold your own!

May we find as ages run, The mother featured in the son; And may yours forever be That old strength and constancy Which has made our fathers great In our ancient Island state: And where e'er her flag may fly, Glorying between sea and sky, Makes the might of Britain known, Britons, hold your own!

Britain fought her son of yore, Britain failed, and never more Careless of our growing kin Shall we sin our father's sin. Men that in a narrower day, Unprophetic rulers they. Drove from out the mother's nest That young eagle of the west To forage for herself alone. Britons, hold your own!

Sharers of our glorious past, Brothers, must we part at last? Shall we not through good and ill Cleave to one another still; Britain's myriad voices call, Sons be welded each and all Into one Imperial whole, One with Britain, heart and soul, One life, one flag, one fleet, one throne, Britons, hold your own! And God guard all!

Do yourself what horse doctors charge big prices for trying to do. Ourse Fistula or Poll Evil in 15 to 30 days. Fleming's

Fistula and Poll Evil Cure is a wonder—guaranteed to cure any case— money back if it fails. No cutting—no sear, eaves the horse sound and smooth Free cook tells all about it—a good book for any pree owner to have. Write for it. FLEMING BROS., Chemists, 45 Front Street, West, Toronto, Can

Dr. Page's English Spavin Cure



For the cure of Spavins, Ring-bone, Curbs, Splints, Windsplints, wind-galls, Capped Rock, Strains or Bruises, Thick Neck from Dis-temper, Ring-worm on Cattle, and to remove all unnatural en-

unnatural enlarge ments.
This preparation
(unlike others) acts by absolding rather than blister. This is the enly 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 8 YOMERIME ROAD, LONDON, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:

Om

J. A. JOHNSTON & CO., DRUGGISTS, 171 King Street East, - Toronto, Ont.

IMPORTED

Clydesdales



My lot of selected stallions and fillies just landed were got by such noted sires as Senator's Heir, Lord Lovat, Prince of Carruchan (8151), Moncreiffe Marquis (9953) and others noted for their individual quality.

GEO. STEWART, Howick, P.Q.

Clydesdale Stallions and Fillies.

Imported and Canadian-bred. For sale: Two Canadian-bred stallions, rising 3 years, from imp. sire and dams, Also SHORTHURN Cows and Heifers for sale. Reasonable prices, For particulars write to

JAS. W. INNES, Woodstock, Ont

CLAYFIELD STOCK FARM

Clydesdales, Shorthorns and Cotswolds. 41 prizes won at World's Fair at St. Louis, 11 firsts, 5 champions. Will now offer my entire flock of rams and ewes at prices according to

J. C. ROSS, Jarvis, Ont. 0

IMPORTED CLYDESDALE STALLIONS

AND FILLIES. Also HACKNEY STALLIONS FOR SALE at reasonable prices. Come and see them, or write to

ADAM DAWSON, Cannington, Ont.

IMPORTED Clydesdale Stallions

For sale, reasonable. Come and see them or

Phillip Herold, V. S., Tavistock.

Burndennet Stock Farm—Clydesdales of the most fashionable strains. Imp. and Canadian-bred mares for sale reasonale. Also Berkshire pigs. For particular write to a S. GORMLEY, Unionville Stn. and P.O.

5 young stallions, 4 two-year-olds and 1 four-year-old, sired by Mains of Airies, Prince Alexander, etc. Prices moderate.

ALEX. McGREGOR, Uxbridge, Ont.

/d 311

DED 1866

Cure

Cure the cure of ns, Ring-nts, Wind-Capped Strains or os, Thick from Dis-

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LLIONS FOR SALE

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remier Championship. Premier Championships,
Reserve Grand Championships,
Three Reserve Championships.
Six \$100 Shire Horse Ase'n Gold Medals.
Six Secend Premiums.
Three Fourth Premiums.

Grand Championship. Two Championships. Five Diplomas. Nine First Premiums. Six Third Premiums. Two Fifth Premiums.

Our fourth carload of Shire, Percharon and Hackney stallions just arrived at our Our fourth carload of since, Perchards and macking stations just arrived at our London, Ont., stables, at the Reid Hotel, and with those already on hand make the best collection of stallions to pick from in Canada, many of them being World's Fair and International winners. A responsible guarantee given with every horse. We will sell a better stallion for the money than any other firm. TWENTY-SEVEN YEARS IN THE IMPORTING BUSINESS. Write for full particulars and new

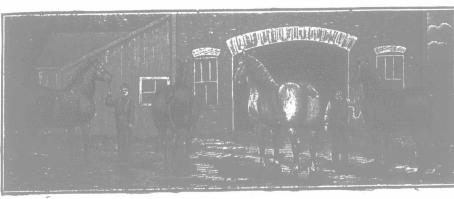
Trumans' Pioneer Stud Farm BUSHNELL, ILL., U.S.A.

Address H. W. TRUMAN, Manager, London, Ont., Branch.

J. H. TRUMAN,

Whittlesea,

England.



20-PERCHERONS-20

Have just arrived with our new importation, Jan. 31st, 1905, direct from France, of 20 high-class Percherons and prizewinners in France, from the best breeders in France. They are descendants of such noted champions as Brilliant, Besique, Romulus. Have personally selected every horse ourselves, using extraordinary caution to select nothing but good, sound, serviceable horses that will do our customers and the country good. Colors, black and dark dapple grays. They are large and blocky fellows, 3 to 5 years old, and can go like trotters, weighing 1600 lbs, to 2000 lbs., with the right kind of feet and legs. We have a few choice German Coachers and Hackneys that are also for sale. We will sell you a better stallion for less money than any other importers in America, with a guarantee as good as gold. Intending purchasers should visit our stables before buying elsewhere. Inspect our stock and get our prices. Terms made to suit purchasers.

HAMILTON & HAWTHORNE. - SIMCOE, ONTARIO. 82 miles south-west of Toronto, on G. T. R.

Your Horse Worth 75c.?

every Box.



If lame he is of no use to anybody. 75c will purchase a box of

STEVENS' DINTMENT

as used in the Royal Stables, with full directions and it will surely cure Splint, Spavin, Curb, Ringbone, and all enlargements in horses and cattle.

Price 75c. small, \$1.50 large box. A little goes a long way. Get a box now. If your local chemist cannot supply you, write direct to

Evans & Sons, Ltd., Montreal, Que. Agents for Canada.



SIMOOE LODGE STOOK FARM CLYDESDALES

Any persons wanting to purchase Clydesdale fillies and stallions for breeding should call on us before buying elsewhere, as we always have a number of prize-winners in our lot.

HODGKINSON & TISDALE BEAVERTON, ONT.

Long-distance 'Phone in connection with Farm 70 miles north of Toronto, on Midland Division of G. T. R.



Clydesdale Stallions

Our third consignment since Toronto Fair has just arrived, per S. S. Athenia, from Glasgow, which includes several of the best colts ever landed in America. Prices right. See this lot. om

JAMES DALGETY,

London, Ont.

QUESTIONS AND ANSWERS. Veterinary.

HORSE BLOWS HIS NOSE.

Horse in good condition and thriving well blows his nose when driving or S. I. standing in the stable.

Ans.-This is sometimes due to an irritant in the nostrils, and sometimes it is simply a habit, which cannot be corrected. Have your veterinarian examine him, and if he can discover any removable cause, have him operate. If nothing can be seen, you will simply have to allow him to blow his nose, as medicines will do no good.

MISCELLANEOUS.

1. Mare will foal about April 15. I feed mixed hay twice and oat straw once daily, with 11 gallons oats daily, also a turnip at night. I want to work her after foaling. Some tell me I should feed soft food before foaling.

2. After foaling, when she is at work, should she be milked after coming to the stable, before allowing the foal to suck? 3. Would it be well to give the colt oats as soon as it will eat?

4. At what age should a colt be weaned? 5. How long should a cow, in good

condition, be dry before calving? E.B. Ans.-1. The addition of a feed of bran daily to what you are feeding, and feeding good hay entirely, is all the change needed. Give regular exercise, or light

2. No; if the mare is quite warm, allow her to cool off before allowing the colt with her, and in such cases it is well to draw a little milk.

3. Teach him to eat chopped oats as soon as possible, and give him all he will eat, provided he gets plenty of exercise. 4. Any time after four months. 5. About six weeks.

BARREN COW, ETC.

1. Cow aborted a year ago, and will not breed since.

2. What is the best food for calves getting separator milk? D. C. R.

Ans.-1. The next time she shows costrum, oil your hand and arm, insert the hand into the vulva and press it forward until you feel the neck of the womb. If the opening into the womb be closed, endeavor to force it open with your finger. In some cases, the finger is not strong enough, and a sound must be used-a piece of hardwood, made very smooth and blunt and about half an inch thick, does very well. Breed her in about an hour after operating; of course, it is wise to employ a veterinarian to operate, as a man who has had no experience and little knowledge of anatomy, may fail to effect an opening. If the opening is not closed, the cause of sterility is in all probability due to diseased ovaries, and you had better fit her for the block. 2. A little finely-chopped oats with the hulls sifted out, mixed with the milk, and good clover hay, if available, as soon as they will eat.

DIARRHŒA AND LAMENESS.

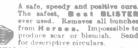
1. Cow fed on timothy, oat straw, bran and oat chop, has had diarrhoa all win-

2. Cow has swollen ankle and is very lame. She has been this way for two F. H. G. months.

Ans.-1. Continuous diarrhœa in a cow, fed as this one has been, indicates some serious chronic disease of the digestive organs, probably tuberculosis, in which case a permanent cure cannot be effected. It may be due to an irritant in the intestines. Give her a purgative of 11 pints raw linseed oil. After the purgative ceases to act, say in about 48 hours, give her 2 ozs. laudanum, 4 drams powdered catechu and 1 ounce prepared chalk in a pint of cold water as a drench every four hours, until diarrhoa ceases. If the trouble recurs, treat again without giving the purgative.

2. Apply hot poultices to the ankle, and keep them hot by pouring hot water on occasionally, until the heat and soreness disappears. Then, if lameness continues blister with 2 drams each biniodide of mercury and cantharides, mixed with two ounces vaseline, and applied the ordinary way by clipping the hair off and rubbing the blister well in. Repeat the blister every month, as long as necessary.

HORSE OWNERS! USE CAUSTIC BALSAM.



THICK, SWOLLEN GLANDS that make a horse Wheeze, have Thick Wind or Choke-down, can be re-moved with ABSORBINE

r 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 mankind, \$1.00 delivered. Cures Goitre, 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.

MARES to

choose from.

MORRIS & WELLINGTON. FONTHILL,

PERCHERONS at BARGAIN PRICES



to make room for our new importa-tion, for the next 60 days we will sell stallions at greatly red u c e d prices. while this

ONTARIO.

We have some of our best ones yet. Among them is a black not three years old, weighing 1900 lbe, with the best of breeding. Located three miles out of town, or two miles from Ruthven, on the Pere Marquette. We pay livery if not on hand to meet you. Address: o I. A. & E. J. WIGLE, ounty. Kingsville, Ontario. Essex County.

Burns & Sheppard, Proprietors,



Cor. Simcoo and Neison Sts., TORONTO. Augilon Sales of Horses, Carriages, Buggles, Barties, etc. every Tuesday and Friday at if o'dlock. Special Sales of Thoroughbred Stock con-defield. Consignments collected. Correspond-cate will fortive printips attention.

This is the best market in Canada for either buy'll or saller. Noarly two hundred heroes call dash work. Clydes Hackneys



FOR SALE: Nine choice imported

Clydesdale Stallions By such noted sires as Hiawatha, Prince of Kyle, Ornament, Ascot and Sir Hugo.
Also six choice imported HACKNEYS, by the English champlon, Garton Duke of Connaught, and others.
All are rare good individuals. Determined to reduce stock, will make prices and terms to suit customers A rare chance or a good stallion at a right price Millbrook is on G. T. R., 18 miles north of Port Hope. Call or write.

T. H. HASSARD, MILLBROOK, ONT.

Belgian Stallion—Undersigned has for sale stallion, Armiateur, No. 4158; dark bay; weight, 2100 lbs. Price reasonable, JOHN MCKEWZIE, Hartley P. O., Omt. Woodville station.

Standard of the World for 60 years. Used on 250 millions annually. One dipping kills Ticks, Lice and Nits. No smell. Keeps flock clean a long time. Increases growth of wool. Dipping Tanks at cost. end for Pamphlet to Chicago.

Send If local druggist cannot supply send \$1.75 for \$2 (100 gal.) pkt. to EVANS & 80N8, Ltd., Montreal and Toronto. WM. COOPER & NEPHEWS, Chicago, III. O

THE SUNNYSIDE HEREFORDS



Imp. Onward in service
Eight choice bulls of serviceable age; this includes
i two-year-olds, all of the
blocky, heavy type, at
prices that will move them.
We can yet spare some
cow and heifers. Inspection invited. O'NEIL BROS.,

Southgate Or Ilderton Sta., L. H. & B.; Lucan Sta., G.T.R. Ont.

If you want Aberdeen-Angus Bull or Cow, a good have six young bulls sired by Imp. "Prince of Benton," champion Angus bull of Canada in 1903 and 1904.

JAMES BOWMAN, Elm Park, Guelph, Ont.

BARGAINS for 30 days. Durham cow bull, \$100; two dark red bulls, 9 months, \$50 each; Yorkshire boars and sows, 30 to 40 lbs., at \$6 each; our yearling stock boar, quiet and a good getter, \$15. W.R. BOWMAN, Mount Forest, Ont.

VALLEY HOME STOCK FARM S. J. PEARSON, SON & CO.

Breeders of Shorthorn Cattle, Berkshire Swine & Shropshire Sheep.

For sale, seven young bulls fit for service, four from imported sires and dams. All pure Scotch breeding, of choice quality. Prices away down for quick sale. No reasonable offer refused. Also a choice lot of young Berkshires. Visitors welcomed.

Meadowvale P. O., Tel. & Station on C. P. R. Six miles from Brampton on G. T. R.

THREE IMPORTED

Shorthorn Bulls Four imported cows in calf, home-bred cows, heifers and young bulls, all of straight Scotch families. Four imported Shropshire rams, eight imported ewes and any number of Shropshire and Cotswold ram and ewe I mbs of the highest class, is what I can show you now, and all will be priced at moderate prices.

Robert Miller, Stouffville, Ont.

Representative in America of Alfred Mansell & Co., Shrewsbury, England.

A. EDWARD MEYER Box 378, Guelph, Ont.

Breeder of High-class Scotch Shorthorns Princes Royals, Brawith Buds, Villages, Nonparells, Minas, Bessies, Clarets, Urys and others. Herd bulls, imp. Chief of Stars (72215), 145417, -32076-, Loyaly, Prince -50757-. Some oboice yearling helfers for sale, Correspondence solicited. Visitors welcome. Telephone in house.

RTHORNS FOR SALE

Six young bulls, 20 cows and heifers, by that grand bull, sire of unbeaten Fair Queen and sister Queen Ideal, first-prize senior heifer calf at the International, 1904.

H. K. FAIRBAIRN, Thedford, Ont.

Choice Scotch-bred ones, for sale at moderate prices. For particulars,

J. & W. RUSSELL, Richmond Hill, Ont Yonge St. trolley car from Union Station, Toronto, passes the farm.

For Sale—I still have some young cows with calves at foot for sale. Good animals and well bred. Hugh Thomson, Box 556, St. Mary's, Ont.

Choice Shorthorn Bull, 16 months old; Choice and from excellent milking strain. Apply, GEORGE LEWIS,

Lot 10, Con. 7, London Tp., Ballymote P.O.



Know it by the lump and the limp—a hard, bony growth on the inner side of the hock joint, usually low down and a little forward of the center of the leg—a quick hitch with the sound leg, and a stiff movement of the lame leg, bearing the weight on the toe, most noticeable in starting.

New cases, old and bad cases, the very worst cases, cases where firing has failed, are cured by Fleming's

Spavin and Ringbone Paste
Guaranteed to cure the lameness for good
—may or may not take off the lump. Easily
used by anybody, and a single 46-minute application usually does the work—occasionally two required. Write for Free Hore Book
before ordering. It gives all the particulars,
and tells you what to do for other kinds of
blemishes.

FLEMING RROS., Chemiata, 45 Front Street, West, Toronto, Can

SCOTCH

85 head in our herd.

The choice breeding bull, Imp. Greengill Victor, a Princess Royal, bred by W. S. Marr, heads herd. We have for sale a dozen young bulls of the strongback, deep-body and short-leg kind; some from our best imp. cows. Also 20 imp. females and 20 home-bred females, all of well-known Scotch families, either in calf or with calf at foot.

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

LOCUST HEDGE STOCK FARM SHORTHORNS

Seven grand young bulls, fit for service, sired by the Princess Royal bull Imp. Prince of the Forest = 40409=. o

JAS. & ED. CHINNICK, Box 425. Chatham, Ont

864 - HILLHURST FARM - 1905

Scotch and Scotch-topped SHORTHORNS

Broad Scotch =46315= (Sittyton Butterfly) at head of herd. FOR SALE: Young bulls by Lord Mounts'ephen, Joy of Morning and Scottish Beau, 12 to 18 months old. Prices moderate. o

JAS. A. COCHRANE, Compton Co., P. Q. Hillhurst Station.

Three Scotch-topped Shorthorn Bulls

FOR SALE. 2 by Prince Gloster =40998=, one by Collynie Archer (imp.). The names of such bulls as Royal Barmpton (imp.), Stanley (imp.), Prince of the Realm (imp.), Earl of March and Revenue =21053 = appear in the pedigrees. Good individuals; must be sold. Inspection solicited. Visitors welcome.

Stations: Myrtle, C. P. R.; Brooklin, G. T. R.

WM. D. DYER, Columbus, Ont.

Queenston Heights Shorthorns

FOR SALE-Two Scotch bulls, from imported sires and dams. Strictly high-class and of choicest breeding. Write for particulars,

HUDSON USHER, Queenston, Ont.

YOUNG SHORTHORNS for sale, either grand Golden Drop show bull, Kinellar Stamp (Imp.). Inquiries cheerfully answered. SOLOMON SHANTZ, Haysville P. O. o Baden Sta. Plum Grove Stock Farm.

SCOTOH-TOPPED SHORTHORNS Nine young bulls ready for service; also several heifers by Scottish Baron 40421 (imp.), for sale reasonable. Come soon and get first choice.

H. GOLDING & SONS,

Thamesford P. O.
Stations, Thamesford, C.P.R.; Ingersoll, G.T.R.

High-class Shorthorns—We have now for sale prizewinner, and one yearling; al.o a number of young cows and helfers.

BROWN BROS., Lakeview Farm, Orono, Ont Newcastle Sta., G. T. R.

First-class Shorthorns—Young cows and heifers of fashionable breeding. Also Shropshires of different ages. Write for prices, etc., to T. J. T. COLE, Bowmanville Stn., G. T. R. o Tyrone P. O

THOS. MERCER, Box Markdale, Ont.

Breeder and importer of CLYDESDALE HORSES, SHORTHORN CATTLE and YORKSHIRE PIGS. Car lots a specialty.

Shorthorns, 6 bulls, 6 to 18 mos., by Provost = 37865 =. Forprioes write to RIPHARD WILKIN.
Springfield Stock Farm. o Harriston, Ont.

Wm. Grainger & Son Hawthorne Herd of Deep-milking Shorthorns.

Aberdeen Hero (imp.) at head of herd. Present offerings 6 good young bulls by Scotch sires. Come and see what we have. Londesboro Sta. & P.O. 0

QUESTIONS AND ANSWERS. Miscellaneous.

EMMER SEED.

I noticed in the "Farmer's Advocate" for March 16th an article on Emmer, by A. S. W., Prince Edward Co., Ont., and thought I would try some of it this year. Where can I get seed? A. H. Ans .- Try the seedsmen advertising in

TO DEHORN CALVES.

the "Farmer's Advocate."

Would you kindly answer through the Farmer's Advocate" what would prevent horns growing on young calves, and J. D. how to use it?

Ans.-Get from your druggist a small stick of caustic potash, which must be kept air-tight when not in use. Wet the incipient horn slightly with spittle, and rub it with the potash; repeating in a day or two, if necessary. Be careful that the caustic does not run down on the calf's head.

POINTS OF JERSEYS.

1. Is the Jersey breed subdivided into different classes? If so, what are they? 2. What is the best color for a Jersey cow?

3. If divided, which is the best for outter?

4. How can I judge a cow for butter producing by her appearance? I presume this will apply to selection of bull.

F. G. S.

Ans.-1. No. 2. There is no best color. Some of the best are black, some brown, some ight, some fawn; some have white markings, others are solid of the colors

3. The churn and scales decide. 4. It is impossible. The pail, the scale

and the Babcock test, or churn, are the only reliable tribunals.

PLANTING CEDAR HEDGE.

I intend to plant a cedar hedge this spring. Would like to know the proper time to plant, and how should the ground be prepared, and how big should the cedars be? J. D.

Ans.—About the first of May is the best time to plant cedars, though either earlier or later will do. The finer and mellower the soil is, the better chance there is for the trees. For best results the ground should be prepared the fall previous to planting. The first season after the hedge is set out, a space of a foot at least on each side should be kept thoroughly hoed, or mulched with straw or sawdust. Choose cedars from two to height of a foot and a half when planted. These are more likely to grow than smaller ones.

PROTECTION FROM LIGHTNING

I intend building a barn this summer, and am undecided what kind of roofing to use, whether metal or cedar shingles ? The matter of choice seems to hinge on the fireproof qualities of the metal roofing. Those interested in the sale of this kind of roofing claim that a barn covered with galvanized steel shingles is practically lightning proof; that it is better protected than a barn with a wooden roof, equipped with lightning rods, and that a barn so roofed has never been known to have been burned by lightning. Can you give me any information on this point through the columns of the "Farmer's Advocate," also any other points on the question of roofing you may be able to give will be thankfully received. A. E. R.

Ans .- We cannot say what truth there is in the claim that a building with a metal roof has never been struck by lightning; but we believe that a building so roofed, if fitted with galvanized-iron eavetroughs, from which conductor pipes reach the ground, or other sufficient metallic connection between the roof and the earth, would be as safe from light ning stroke as it is possible to be made with lightning rods. You can, however if you cover roof with shingles, out of galvanized wire, at very slight cost, make o any that are put up.

DOTTANT

Potash as Necessary as Rain

The quality and quantity of the crops depend on a sufficiency of

Potash

in the soil. Fertilizers which are low in Potash will never produce

satisfactory results.

Every farmer should be familiar with the Every farmer should be failmfar with the proper proportions of ingredients that go to make the best fertilizers for every kind of crop. We have published a series of books, containing the latest researches on this all-important subject, which we will send free if you ask. Write now while you think of it to the

GERMAN KALI WORKS 98 Nassau Street, New York.

BELMAR PARC SHORTHORNS

We offer six splendid young Scotch bulls and a really choice lot of females at prices that will pay you. Address:

PETER WHITE, JR., PEMBROKE, ONT.

FLETCHER SHORTHORNS Our herd of breeding cows, both imported and home-bred, are of the most fashionable Scotch families. Among the really good sires which have been used are Spicy Robin 28259, winner of 3rd prize at Dominion Exhibition, Toronto, and Joy of Morning (imp.) 32070, winning 1st prize at same exhibition, 1904. Stock of either sires for sale. GEORGE D. FLETOHER, Binkham P. O., Ont, Erin Shipping Station, C. P. R.

Shipping Station, C. P R. Belvoir Stock Farm SHORTHORN BULLS, various ages; imported and home-bred, by imp. Gay Lothario, a Cruickshank Lavender.

a Cruicksnank Lavender.

OLYDE STALLION, 2 years old; sire imp.,
dam a winner, grandam 1st Highland Show.

YORKSHIRES—Sows and boars, various
ages; not akin. Three imp. boars and 5 imp.
sows to select from, and their progeny. Prices
right, Also honorable dealing. RICHARD GIBSON, Delaware, Ont.

SHORTHORNS

One red bull calf, and one red three year-old heifer to calf May 1st. Al from good milking strain. To be cold cheap.

GLENAVON STOCK FARM,

W. B. Roberts, St. Thomas Stn. Sparta P. O.

SHORTHORNS and CLYDESDALES

Spicy Count (Imp.), 5 thick, fleshy bulls. 12 months old; a few heifers and p splendid Clydesdales; 3 mares registered. All young.

JAS. MCARTHUR Pine Grove Stock Farm. GOBLE'S, ONT.

RIDGEWOOD PARK STOCK FARM SCOTCH SHORTHORNS

Special offering, on account of shortage of feed: Imp. and Canadian-bred cows and heifers, some first-class show stuff of leading families, including Missies, Mayflowers and Village Girls, and by such imp. sires as Imp. Favorite (83469), Nonpareil Archer and Marquis of Zenda. No fancy prices. Satisfaction guaranteed. Visitors met by appointment and always welcome. E. C. & E. C. ATTRILL, Goderich, Ont.

CLEAR SPRING STOCK FARM

HIGH-CLASS SHORTHORNS

A specialty. Present offerings young bulls and heifers from first-class stock. Correspondence or inspection of herd invited,

JAS. BROWN, Thorold Sta. & P. O.

Scotch Shorthorns—Three young bulls. One by Scottish Beau, imp., dam Lady Ythan 5th, imp.; 2 others by Invincible, second prize, Toronto, 1904; also helfers of like breeding and quality.

G. H. OKE, Alvinston, Ont.

ELMHEDGE SCOTCH SHORTHORNS.
Stamfords, Minas, Nonpareils, Crimson Flowers, Marr Floras and Lavinias. Our herd will stand comparison with any. We reserve nothing: 45 head of both sexes, all ages, for sale. O James Bowes. Strathnalm P.O. Meaford Sta.

WILLOW BANK STOCK FARM — 1855

Old Established Herd. Special offering of SHORTHORNS, either sex; also choice BERKSHIRE PIGS, fit for service. o JAMES DOUGLAS, Caledonia, Ont.

NDED 1866

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RES v York.

RC ing Scotch of females Address:

BROKE, ONT.

THORNS both imported st fashionable sally good sires cy Robin 28259, on Exhibition, np.) 32070, win-on, 1904. Stock np.) 32070, windon, 1904. Stock

Farm ious ages; im-Gay Lothario,

.. Ont. Erin

old; sire imp., hland Show. boars, various ars and 5 imp. ogeny. Prices elaware, Ont.

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HUR BLE'S, ONT. OCK FARM ORNS

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KFARM THORNS

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Sta. & P. O. ng bulls. One th Beau, imp., thers by Invin-4; also heifers

inston, Ont. ORTHORNS e reserve noth ges, for sale. o .Meaford Sta.

ARM - 1855 rd.

HORNS, either E PIGS, fit for Caledonia, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

COACH HORSE, MARK D'OR.

In answer to question re pedigree of Coach stallion, Mark D' Or, we have received route cards for this horse for the seasons of 1901 and 1904, with description and pedigree, which may be had by the enquirer by addressing the "Farmer's Advocate," London, Ont.

TRY NITRO-CULTURE.

Is nitro-culture of any use to make crops grow on poor land?

Ans.-Prof. Harrison, of the Ontario Agricultural College, Guelph, on page 379 of the "Farmer's Advocate" for March 16th, offers to send out samples of nitroculture for test. Our correspondent can make a test for himself, and in case he does, we request him to report results to this paper. Have any of our readers already tested it, and with what results?

RINGBONE TREATMENT.

How shall I treat ringbone on a colt K. S. J. two years old?

Ans.-Use biniodide of mercury, one part, and lard, or vaseline, six parts, mixed into a paste. Clip off the hair from the part to be blistered, and rub in the mixture with smart friction for at least half an hour. In forty-eight hours wash off, and apply a little lard or vaseline every day or two, till the part is healed, and in the course of six weeks or two months, repeat the treatment. The most satisfactory treatment for ringbone is to have a competent veterinary surgeon fire it. No treatment will remove the enlargement.

OIL CAKE AND FLAXSEED.

1. If ground oil cake is worth \$1.75 per cwt., how much should ground flaxseed be worth?

2. How much oil cake at \$1.75 per cwt. could be fed with profit to milch cows and beef cattle, weighing 1,200 They are now fed clover hay, roots and chopped oats, wheat and barley, mixed so as to weigh about 48 lbs. per bush

Ans.-It is impossible to express the relative feeding values of different foods in money. For most purposes, oil cake is worth just as much as ground flaxseed and in some cases possibly more than ground flaxseed, while for other uses the flaxseed would be more valuable. If your inquirer has plenty of oats, wheat and harley, I would not recommend for him to use much, if any, oil cake for feeding his steers. For the cows, a small allowance each per day, say about two pounds per day for each cow, along with their other meal ration would likely give good results. Of course, the oil cake would also be good for the steers, but I doubt whether it would pay to use it at the price mentioned G. E. DAY. Ontario Agricultural College.

THE COLUMBIAN AND CUTHBERT RASP. BERRIES

Advise me as to the merits of the Columbia raspberry. Would their color be against them for a general market herry to sell on Toronto market? How do they compare with the Cuthbert?

Ans.-Regarding the Columbian raspherry, I may say that although I think highly of this variety for home use, still I do not believe it would be wise to plant it extensively for the market. Its dark color is so much against it, particularly when placed for sale in contrast with the bright-colored Cuthbert. Even the fresh berries of the Columbian give the uninitiated the impression that they have been picked for a week or more, and discolored through age. Possibly in time the general public will become accustomed to the appearance of these dark varieties. and will be able to appreciate their merits. At it is, however, I do not think we have any variety which takes on the market better than the bright, showy berry of the Cuthbert. It might be well, however, to plant enough of the Columbian to enable the shipper to keep a few of these on the market, and in that way the public may become accustomed to them. On account of the wonderful productiveness of the Columbian, it would certainly be much more profitable than the Cuthbert, if the fruit could be sold for as good a price.

H. L. HUTT. Ontario Agricultural College, Guelph.

You have heard many times about Zenoleum. Have you ever determined by actual use on your own stock what its use means to you? Thousands of live stock owners have. After they try Zenoleum they are never without it. They know that the use of Zenoleum means more profit on every kind of stock, a gain figured in dollars and cents which amounts to many times its cost. Zenoleum puts and keeps animals in perfect condition, to thrive; it promotes health; kills all lice and vermin; destroys disease germs, prevents contagion, purges the stomach and intestines of worms.

Forty Agricultural Colleges Use And Endorse Zenoleum.

As a live stock raiser, are not these things important? It is because we know the good Zenoleum will do you, and because we want you to know, that we ask you to test

Wonderful Zenoleum. "Coal Tar Disinfectant and Dip." The Great Promoter of Animal Health. One gallon of Zenoleum will be sent you, express prepaid for \$1.50 and it will make 100 gallons of reliable disinfectant solution. Try it for the animal troubles and ailments that are worrying your stock: use it as a disinfectant, germicide and insecticide; for mange, scurvy, ringworm, canker, scab; for removal of stomach and intestinal worms; to cure calf cholera, abortion of cattle, chicken cholera, scab in sheep, cattle mange or itch, etc. We are satisfied that if we can induce you to make the trial you will become more than enthusiastic about Zenoleum. In addition to every representation made above, Zenoleum is guaranteed to be non-poisonous—absolutely harmless for internal or external use. Neither injures skin, discolors wool or roughens the hair.

We ask you to take no chances. Read the Zenoleum guarantee. If Zenoleum is not all we say it is or even what you think it ought to be you get your money back. No argument. Just Money.

Most all druggists handle Zenoleum—if yours won't supply you, we will. The prices of Zenoleum are: One gallon, \$1.50, express paid; two gallons, \$3.00, express paid; three gallons, \$4.50, express paid; and five gallons, \$6.25, freight paid. Send to us for booklets, "Veterinary Adviser," "Chicken Chat" and "Piggies' Troubles." Free. ZENNER DISINFECTANT CO., 113 Bates Street, Detroit, Michigan.

TROUT CREEK

A few very choice bulls and females, both imported and home-bred, with superior breeding. SEND FOR CATALOGUE.

JAMES SMITH. MANAGER.

W. D. FLATT, HAMILTON, ONT.

SPECIAL OFFERING OF SHORTHORNS and SHROPSHIRES

(Imp.) Scotland's Pride = 36098 = , 5 years old, Crulokshank Clipper, by the great sire, Star

a Cruickshank Clipper, by the great sire, Star of Morning.
(Imp.) Scottish Pride = 36106=, 4 years old, a grand sire, of the Marr Roan Lady family.
2 bulls, 2 years old, and 7 from 9 to 16 months.
20 imported and home-bred cows and heifers.
All of the most approved Scotch breeding.
30 Shropshire ewes, one and two years old.
25 ram lambs.
No reasonable offer refused. For catalogue or further particulars write

W. G. PETTIT & SONS, FREEMAN, ONT. 0

Burlington Jct. Station, Telegraph, Telephone. MAPLE LEAF

4 Choice Young Bulls For Sale. Also some cows and heifer and prizewinning Berkshire pigs. Terms reasonable. o ISRAEL GEOFF, Alma P.O. & Sta., G.T.R.

SCOTCH SHORTHORNS FOR SALE wo young bulls, 12 and 16 months old, both oyally bred; also fifteen heifers and cows, most of them in calf to a son of Lord Gloucester, No. 26995 DR. T. S. SPROULE, Cedardale Farm Markdale P.O. and Station.

SHORTHORNS and DORSETS

Write for what you want. Also a number of young Yorkshire sows for sale. D. Bartlett & Sons, - / Smithville, Ont.

HIGH- Shorthern Cattle AND OXPOND OLASS TOURS: Young stock, either sen. For prices and particulars write to LAS. TOURS SON, Walterston, Ont.

SPRING VALLEY SHORTHORNS Good bulls at reasonable prices, out of good Scotch cows, and by such bulls as Bapton Chancellor (imp.), Scottish Beau (imp.), Nonpareil Archer (imp.), Clipper Hero, etc. For further particulars, apply to KYLE BROS., Ayr, Ont.

SHORTHORNS & CLYDESDALES Present offerings, a few young bulls, sired by Prince of Banff (Imp.), also one registered Clydesdale stallion, rising 2 years. Prices low, considering quality.

DAVID HILL, Staffa, Ont.

J. A. LATTIMER, Box 16, Woodstock, Ont., Offers Shorthorn Bulls, fit for service. Also two shire sows in pig to imp. boar. All at prices that will induce you to buy. Write for further particulars.

MAPLE SHADE



Nine young bulls fit for service. Showing the finest Cruickshank breeding.

Good Size, Quality, Flesh and Bone.

Inspection invited. Catalogues on application. om

JOHN DRYDEN & SON, Brooklin P.O., Ont.

JOHN GARDHOUSE & SONS Highfield P. O., Ont., Breeders of Scotch and Scotch-topped Shortherns,

Shire Horses, Lincoln and Leicester Sheen. A good selection of young stock of both sexes always on band for sale. Scottish Prince (Imp.), Vol. 43, at head of herd. Royal Albert (Imp.) 20207, at head of stud. Farms 21 miles from Weston, G. T. B., and C. P. B., and electric cars from Toronto.

Shorthorn Cattle and Lincoln Sheep

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

Denfield, Ont.

J. T. GIBSON. MAPLE LODGE STOCK FARM

1854.

Eight very choice young bulls, of the best breeding and from first-class milk-ing cows. A few handsome heifers also for sale, and a few Leicesters. om

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

SHORTHORNS Two extra choice young bulls of serviceable age, from imported sires; also heifers.

LBICESTERS Choice yearling ewes, now bred to our stock ram; also a few good ram lambs

to offer. W. A. DOUGLAS,
Caledonia Station. Tuscarora P. O.

ABVERTISE IN THE ADVOCATE, F. G. JAMES,

Still have a few good young bulls to offer. Also an exceptionally good lot of heifers, among which there are show animals. Prices easy.

CATALOGUE.

H. OARGILL & SON, OARGILL, ONT. JOHN CLANCY, Manager.

BULLS YOUNG



town.

Mostly imported and from imp. sire and dam. Also a choice lot of cows and heifers.

All Scotch

JOHNSTON ARTHUR om GREENWOOD, ONT. Pickering, G. T. R. Claremont, C. P. R.

Scotch

Herd headed hy Imp. Royal Cham-pion. Young stock for sale from Imp. sires and dams. For particulars write to Markham Sta. & P. O. RD. ROBINSON,

Farm within town limits.

PINE GROVE STOCK FARM ROOKLAND, ONTARIO, GANADA. Breeders of choice

SCOTCH SHORTHORNS and SHROPSHIRES.

W. C. EDWARDS & CO., Ltd., Props. JOSEPH W. BARNET, Manager. om

T. DOUGLAS & SONS.

Strathroy, Ontario. SHORTHORNS and CLYDESDALES Present offerings: 12 young bulls of No. 1 quality, ready for immediate service; also cows and heifers of all ages. Also one impatallion and two broad mares. Prices reasonable. Visitors welcome. Farm one mile from om

For Sale—Two young Shorthorn Bulls, 11 months old, from imp. sires and imp. dams. Bargains if sold quick. BELL BROS., Bradford, Ont.

For Sale—Shorthorns, imported and home-bred; both sexes; herd headed by Imp. Royal Prince. Also Oxford Down sheep. All at reasonable prices.

JOHN McFARLANE,

Box 41. Dutton P. O., Elein Co., Ont.
Stations M. C. R. and P. M.

LIVE-STOCK EAR LABELS



GOSSIP.

THE SHIRE HORSE SALE. At the sale in connection with the Shire Horse Show last month in London, 125 head averaged £87 13s. 6d. There was a spirited demand for the best animals. The highest individual price was 400 gs., given for the stallion, King Carl (19738), by British Lad. The two-yearold mare, St. Ledger Beauty (46171), by Dunsmore Jameson (17972), made 340

As a stranger in Philadelphia, I was much amused by certain provincialisms. One of these was the use of the word " off" instead of "from." "Please buy flowers off me," say the youthful street vendors. One day, while waiting for some groceries, a young lady, evidently unused to housekeeping, approached the raw Irish clerk and timidly said : want some mutton to make broth. Shall I get it off the neck?" was the solemn reply, as the clerk pointed to the butcher busy at his block, "yer git it off that mon."

One of the most memorable sales of high-class Clydesdales that has taken place in recent years was that on March 9th, when practically the whole of Mr. Smith's celebrated Blacon Point Stud was dispersed at Lanark, Scotland. The thirty head, all of them females, averaged £152 3s. 7d. The following is the sale: Brood mares-Dark Rose, 110 gs. Baroness, 110 gs.; Cedric Princess, 315 gs.; Gladys, 220 gs.; Lady Primrose, 500 gs.; Beauty's Queen, 247 gs.; Ches ter Princess, 400 gs.; Royal Ruby, 400 gs.; Princess Royal, 180 gs.; Baroness of Bargany, 150 gs., Blacon Jewel, 150 gs.; Beatrice, 251 gs.

The Ayrshire herd of Mr. T. D. Mc-Callum, Danville, Que., now numbers 55 head, and is, as usual, in good working form. The cows that are milking are giving good returns, many of them having records of from 40 to 60 lbs. of milk per day, cream of which is being shipped daily to one of the largest hotels in Montreal. Upon this herd, the best of bulls is continually being used with the aim of still further improving the herd. Mr. McCallum's motto ever is advance. The last two bulls used in the herd were Imp. Napoleon and General White, bred in the noted Ogilvie herd. Several fine young heifers from those sires are being bred to Imp. Admiral Togo, bred by Mr. Mitchell, and imported by R. R. Ness, chosen by him on account of his ances-We are informed tors' dairy records. his dam was one of the heaviest milkers in Scotland. Among the milking cows are a bunch of deep-set, heavy milkers, with large teats, by Imp. Baron Renfrew. From this lot of cows and heifers, Mr McCallum expects to get some extra good young stuff, by Admiral Togo A few were shown at Sher-(imp.). brooke Exhibition from this herd, and landed the diploma on bull and diploma on young herd (home-bred), as well as several first prizes in single sections. When you want a good young bull or helfer, write Mr. McCallum, he always has some good ones for sale at right prices.

SIX SAYINGS TO REMEMBER.

"There is something better than making a living; making a life."

"Our success in life depends upon our will to do."

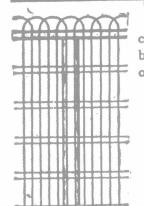
"It is never too late to be what you might have been."

'Great principles are in small actions. If we fail in our present circumstances to live nobly, we need not imagine we should have done better on a grander scale. Develop great character in simple

duties and in inconspicuous trials." "To be of good cheer in case of disappointment; exercise greater charity toward the erring, and make more allowance for the opinions of people whose views differ from thine; to smile more and frown less."

"To be honest; to be kind; to earn a little, and to spend a little less; to make upon the whole a family happier for his presence; to renounce, when that shall be necessary, and not be embittered; to keep a few friends, and these without capitulation; above all, on the same grim condition, to keep friends with himself-here is a task for all that a man has of fortitude and delicacy."

Special Lawn, Park or Garden Fence



This wonderfully popular fence is made of No. 9 special steel, galvanized WIRE, crimped or corrugated. The uprights are only 2 1/2 inches apart. There are 13 horizontal bars. The fence is usually erected on wooden posts and scantling, but the scantling can be omitted if preferred.

This fence is very durable, neat and serviceable, and surprisingly attractive. It is supplied in any lengths wanted. When desired we paint it white without extra charge. Further particulars on application. If local dealers cannot supply you, we will.

THE PAGE WIRE FENCE CO. LIMITED WALKERVILLE, ONT.

BRANCHES: MONTREAL, TORONTO, ST. JOHN, WINNIPEG

"Page Fences Wear Best."

First-Class Young.

And an excellent lot of cows and heifers. Scotch cattle, imp. and home-bred. Rich man's cattle at poor man's prices. Also high-class Yorkshire and Berkshire swine.

DAVID MILNE, Ethel, Ont., Huron Co. & J. A.

Elora Station, C.P.R and G.T.R. Salem P.O. Telephone in house.

Our herd of seventy-five head of Scotch-bred

SHORTHORNS

compares favorably with the best. Inspection and correspondence invited.



SHORTHORNS FOR SALE Four young bulls, including 22-months son of Mayflower 3rd, champion female at Winipeg and Toronto, 1904; also a few good heifers of same family. Primrose Day (imp.) at head of herd.

WM. McDERMOTT Living Springs, Ont., Forgus Station.

20 Cows and Heifers Good ones, Scotch-bred, at moderate Catalogues on application. H. SMITH, Exeter, Huron Co., Ont. Station adjoins farm. Long-distance telephone in residence.

Shorthorns—We have for sale several young bulls ready for service, sired by Royal Duke, he by Royal Sailor (imp). Also a few helfers and cows. bred to Wandering Count, by Wanderer's Last (imp).

J. R. McOALLUM & SONS, Fona Stn., Ont.

MOUNTAIN VIEW SHORTHORNS

Imported and home-bred, male and female, prize and sweepstakes winn various ages. Anything for sale.

S. J. McKNIGHT, Epping P. O. Thornbury Station

Auction Sale of Green Grove Shorthorns I will sell on my farm, February 14th, a choice selection of 25 bulls and heifers. Catalogues will be ready by Jan. 25th. W. G. Milson, Goring P. O., Markdale Sta.

J. WATT & SON-1 imp. BULL; also a number of imported and homebred cows and heifers, in calf or with calves at foot from (imp.) Royal Archer and Royal Star. Salem P. O., Elora station, G.T.R. & C.P.R. o

FOREST
VIEW FARM
HEREFORDS,
same lines; choice individuals, for sale. JOHN A. GOVENLOCK, Forest Sta. and P.O.



JERSEYS

For sale: Yearling bull, dam gave 6,000 lbs. milk with first calf; bull calf, from 1st-prize three-year-old heifer, Toronto, 1903; also a fine lot of heifers.
Also Cotswold ewes, a few good ones, o WILLIAM WILLIS, Newmarket, Ont.

140 - JERSEYS - 140 to choose from. 74 First Prizes, 1904. We have what you want, male or female.

B. H. BULL & Son, Brampton, Ont.

Over 50 head to choose from. number of young cows and heifers for sale. Six young bulls from 8 to 11 months old.

BROWN BROS.,

Barren Cow Cure makes any animal under fund money. Given in feed twice a day. "With your Barren Cow Cure I succeeded in getting two of my cows in calf—one 10 years old, and had previously been served repeatedly, to no purpose"—says M. E. Reeder, Muncy, Pa. Particulars from ________ om _______ L. F. SELLECK, Morrisburg. Ont.

MERTON LODGE HOLSTEINS



prizewinners as well as producers.

Forty head to select from. Such great sire as Sir Hector De Kol at head of herd. Present offerings: Young bulls, cows and heifers, all ages. Am booking orders for our entire crop of spring calves with glit-edge pedigrees. We quote prices delivered at your station. Safe arrival guaranteed. H. E. GEORGE, ORAMPTON, ONT.

We want you to remember that HOLSTEIN COWS

owned by me (formerly at Brookbank Stock Farm, Currie's) won all sorts of honors in milk tests at Toronto, Ottawa honors in milk tests at Toronto, Ottawa and Guelph (5 years), and among many other prizes in the show-ring, including sweepstakes at Toronto and Pan-American in competition with the best in the world. Our herd is always improving. We have now 5 cows whose official test average 22 4 lbs. butter in 7 days, 10 cows whose official test average 20.4 lbs. butter in 7 days, 15 (3 yrs. and up) whose official test average 19.0 lbs. butter in 7 days, 10 (3 and 4 yrs.) and up) whose official test average 19.0 lbs. butter in 7 days, 10 (3 and 4 yrs.) whose official test average 17 lbs. butter in 7 days, 10 heifers (average age 28 mos.) whose official test average 11 lbs. butter in 7 days. That is our idea of a dairy herd, and the kind of stock I handle. A few good young bulls, 1 to 13 mos., for sale.

GEO. BICE, Annandale Stock Farm, Tilsonburg, Ont

SHANNON BANK STOCK FARM FOR AYRSHIRES AND YORKSHIRES

Young stock of both sexes for sale from imported stock. Cedar Grove, Ont. W. H. TRAN.

Riverside

80 head to select from. 8 young bulls from 6 to 10 months eld, whose dams have official weekly records of from 17 to 21 lbs. butter; sired by Imp. Victor de Kol Pietertje, C. A. R. of M. No. 3, and Johanna Rue 4th Lad.

MATT. FICHARDSON & SON, Haldimand Co. Caledonia P. O., Ont.

Maple Gien Stock Farm offers for sale two choice Bull Calves, grandsons of Carmen Sylvia; also one from a daughter of the world's famous Inka Sylvia. Nearly ready for service. All are sired by sweepstake show bull, Ottawa, 1903. Address O. J. GILROY & SON, Glen Buell Out. o

IMPERIAL STOCK FARM HOLSTEINS. For Sale: Four bull calves, 5 months old, whose sire's three nearest dams average 21.79 lbs. of butter in 7 days. Also young bulls by the sire of first-prize herd at London.

W. H. SIMMONS, New Durham, Ont.

Boils and impure blood positively cured by taking Satis Sulphume. 50c. box by mail. Booklet free. SATIS REMEDY CO.

A. KENNEDY, SYP:

ters, the greatest sire of the tended pedigrees and prices.

Woodbine Holsteins

Herd headed by Sir Mechthilde Posch, whose four

Herd headed by Sir Mechthide Poson, whose four nearest ancestors average 25 lbs. of butter in 7 days in official tests. Cows, heifers and young bulls, sired by Homestead Albino Paul DeKol, a grandout of DeKol 2nd Paul DeKol, sire of 41 A. R. O. daughters, the greatest sire of the breed. Write for ex-

6 bull calves for sale, from 3 to 9 months old, bred from rich milking strains. Special prices to quick buyers. Port Perry, G. T. R., and Myrtle, C. P. R., Shipping Stations, Ontario County. OR. W. Walker, Utica P. O., Ont.

HIGH-CLASS HOLSTEINS AND TAMWORTHS Bulls ready for service, by the invincible sweepstakes bull, Judge Akkrum De Kol 3rd, and out of choice dams; also some choice bull calves. Tamworths of the most approved calves. Tamworths of the most app type. A few sows in farrow to offer. at once for prices.

A. C. HALLMAN,

Waterloo Co.

Breslau

Breslau, Ont.

Maple Grove Holsteins—In official tests they stand 1st for cow, 1st for 3-year-old, 1st 2-year-old and 1st under years old. Special inducements are offered in high-class buils to quick purchasers. For particulars address, H. BOLLERT, Cassel, Ont.

FOR SALE:

HIGH-CLASS AYRSHIRES

Special offering for next 30 days: Two cows at \$65 each; one bull calf, \$35; one yearling bull, \$45; also a few heifer calves, from \$20 to \$40 each, according to age. Poultry—Eggs for hatching, from W. Wyandottes, Silver-gray Dorkings, B. P. Rocks, Houdans and Black Spanish at \$2 per 15 eggs. All correspondence of the or the state of the sta

cheerfully answered. 0
WILLIAM THORN,
Trout Bun Stock Farm, Lynedoch, Ont.

WOODROFFE AYRSHIRES

25 head for sale, 4 to 20 months old, from cows named in my herd record, and sired by lst-prize bull at St. Louis World's Fair. YORKRHIRE SWINE of best breeding always on hand at moderate prices. suit purchasers. Inspection invited.

J. G. CLARK, - Ottawa, Canada.

Do you want to get a grand young bull or heifer, with breed-ing and individuality as good as the best? If so, write to o

W. W. BALLANTYNE, Stratford Stn. and P. O., Ontario.

MEADOWSIDE FARM Ayrahire Cattle, Shropshire Sheep. Berkshire Pigs, R. P. Rocks and B. Orpingtons. Eggs for hatching \$1 per doz. Young stock for sale.

A. R. YUILL, Carleton Place, Ont.

AYRSHIRES FROM A PRIZEWINNING HERD Hover-a-Blink, one of my stock bulls, and heifers for sale at reasonable prices. For particulars, etc., write to WM. STEWART & SON, Campbellford Sta. 0 Mente P.O., Ont.

AYRSHIRES, 4 choice bull calves four to service. Females all ages, bred for size and production. DAVID LRITCH, Prices right. Cornwall, G. T. R. CORNWALL, ONT. Apple Hill, C. P. R. om

Springbrook Ayrshires are heavy milkers and high testers For sale: Three bulls, 9 months old; 2 bull calves, dropped in January last; also females of all ages.

W. F. STEPHEN, P. O. box 101. O Huntingdon, Que. MAPLE CLIFF DAIRY AND STOCK FARM Breeders of Olydesdale Horses. Ayrshire Cattle, Perkshire and Tamworth Pigs. Young stock for sale at all times. OR. REED & OO.. - Hintonburg, Ont.

Farm adjoins Central Experimental Farm.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Box 156.

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ra charge.

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steins och, whose four outter in 7 days d young bulls, col, a grandson A. R. O. daugh-Write for ex-

AYR. DALE FARM 9 months old, Special prices F. T. R., and ions, Ontario lea P. O., Ont.

TAMWORTHS he invincible in De Kol 3rd, ne choice bull ost approved offer. Write

N, Freslau, Ont. dal tests they t for cow, 1st 1 1st under 2 are offered in ers. For par-

SHIRES

Cassel, Ont.

Two cows one yearling es, from \$20 to try—Eggs for s, Silver-gray as and Black rrespondence

edoch, Ont. SHIRES

d, from cows sired by latair.

pest breeding
es. Terms to ted. a, Canada.

grand breed-ood as NE, , Ontario.

ARM serkshire Pigs, oe, Ont.

NNING HERD ls, and heifers articulars, etc., r & son, le P.O., Ont.

alves four to; 1 bull fit for for size and Prices right. WALL, ONT.

y milkers and ers For sale: lves, dropped all ages.

ngdon, Que. TOCK FARM s Ayrshire orth Pigs. nburg, Ont.

MARCH 30, 1905

WILL GURE YOU FIRS

The physician who has not sufficient confidence The physician who has not sufficient confidence in his ability to cure his patients first, and receive his pay afterwards, is not the man to inspire confidence in those who are in search of honest treatment.

My acceptance of a case for treatment is equivilent to a cure, because I never accept incurable cases. I am satisfied to receive the money for the value I have given the patient, but I expect to prove my worth and show positive and satisfactory results before I ask for the fee. So, should I fall to cure the case, the patient loses nothing, while when I cure him I have given what is worth much more than money—I have given him his health again. I am the very first specialist in the Unites States who has had sufficient confidence in his ability to say to the afflicted,

say to the afflicted. NOT ONE DOLLAR NEED BE PAID UNTIL CURED

Dr. S. GOLDBERG,
The possessor of 14 Diplomas and certicates, who wants no money that he does not earn.

There is no guess work, no experiment about my method. I am a known expert in my chosen specialties, and offer you the best and only the best treatment. When your life or your health is at stake, inferior treatment (which leaves after effects worse than the disease itself), is dear at any price.

Have 14 Diplomas and certificates from the various colleges and state boards of medical examiners which should be sufficient guarantee as to my standing and abilities. It makes no difference who has failed to cure you, it will be to your advantage to get my opinion of your case free of charge.

PHYSICAL DEBILIT

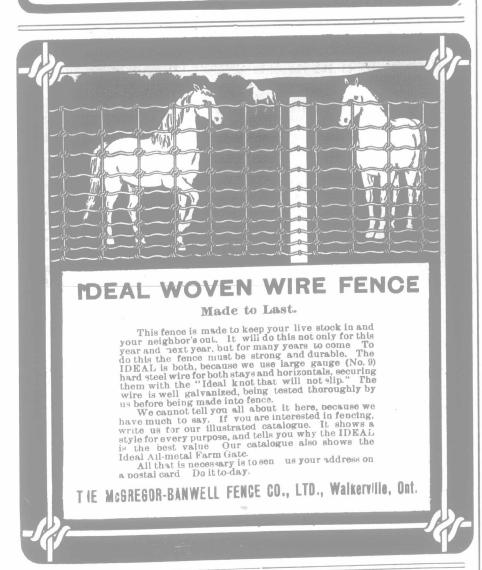
The Latest Method Treatment is a heaven-sent boon to nervous sufferers. There are scores and hundreds of persons suffering from severe nervous disorders resulting from overwork, hurry, worry, business and domestic cares, bereavements, dissipation, etc. To them life is one continual round of misery, while peace, comfort and happiness are impossible. They suffer from headache, loss of memory, mental depression, strange sensations, dullness, dizziness, restlessness, irritability, constant indescribable fear, forebodings, sleeplessness, weakness, trembling, heart palpitation, cold limbs, utter fatigue and exhaustion. In this class of cases almost immediate relief is afforded by my treatment. The use of narcotics and poisonous stupefying drugs is done away with, and permanent cures accomplished.

I Cure Nervous Debility, Varicocele, Stricture, Early Decay and Waste of Power, All Nervous, Chronic, Blood and Skin Diseases. X RAY EXAMINATION, ADVICE AND CONSULTATION

HOME TREATMENT

If you are in or near the city you should apply for treatment in person, but if you live too far away, write me a full and unreserved history of your case. You will receive as careful, conscientious and painstaking attention as if you were in my office daily. As men in different parts of Canada and Mexico, as well as all over the United States, are being cured by my system of home treatment. I feel fully justified in claiming that it is the most perfect and successful system ever devised. All physicians coming to me for consultation over obstinate cases which they are occasionally called upon to treat will receive the usual courtesies of the profession. Medicines for Canadian patients shipped from Windsor, Ont., all duty and transportation charges prepaid,

DR. GOLDBERG, 208 Woodward Ave., suite 435 Detroit, Mich.



Advertise in

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

GOSSIP.

Messrs. Smith & Richardson, importers and breeders of Clydesdale horses and Shorthorn cattle, Columbus, Ont., write: "We have made a number of sales during the last ten days. One carload of stallions and mares to J. W. Alcok, Medicine Hat, N.-W. T.; also one of our prizewinning stallions, Prince of Scotlandwell, to Mr. Thos. Brown, of Carleton Co., for the sum of \$1,700. Prince of Scotlandwell won second price in Ottawa in the spring of 1904, and fifth prize in Toronto last February. We also sold our stallion, Pride of Lyndoch, to go to Calgary, Alta. We still have a number of stallions and mares on hand, and our prices are right. Parties in need of either should see our stock before purchasing elsewhere.'

Mr. D. Milne, Ethel, Ont., reports the following sales of Shorthorns made re-cently: "To F. We'sh, Lurgan, Ont., the cently: young bull, Prime Favourite =56086=, by Ontario Gold =41028=, dam Roan Strawberry =57018=, to James Taylor, Kincardine, Ont., Maitland Hero Kincardine, Ont., =56085=, by Red Duke (imp.) =3608= (77585), dam Rose of Huron =51548= ; to Dan DeCourcey, Bornholm, Ont., Golden Choice =56080=, by Golden Conqueror (imp.) =36040=, dam Countess 2nd (imp.), by Count Amaranth (imp.) (74289). I still have a few of similar breeding and quality for sale. Amongst them is Gloster Prince =56082=, a good, sappy red, sired by World's Fair King =38431=, dam Duchess of Gloster F. =43793=; also a very pretty dark roan, thick, blocky, twelve-months-old bull of the Stamford family, and got by Scotland's Fame (imp.) =45225=, dam Roan Rose =51546=; also Star of the Realm =56089=, a pretty nine-months-old roan bull, by Scotland's Fame (imp.), dam Rosa Lenton 3rd =36329=, a Campbell Rosebud. These will be sold at very low prices."

Mr. H. Bollert, Cassel, Ont., writes 'The Maple Grove Holsteins are doing finely this winter, and in official tests maintain their high position. We recently had the three-year-old, Tidy Pauline De Kol, and her half-sister, Maple Grove Belle, officially tested. Tidy gave 56 lbs. 15 ozs. in one day; 393 lbs. 4 ozs. in seven days, and made 16.62 lbs butter, 85.7 per cent. fat, in seven days. was nearly two months after calving, with her teats raw with cowpox. She had previously given 66 lbs. daily. Belle gave 58 lbs. 9 ors. in one day; 401 lbs. 15 ozs. in seven days, and 16.33 lbs. butter, 85.7 per cent. fat in seven days, which places her at the head of all twoyear-olds in Canada to-day. Both helfers were bred here, which again shows that Maple Grove need not import stock in order to make large records. Sales also very satisfactory. The more recent are a bull to Mr. J. E. Harrison, Kincardine, to head his fine herd of purebreds; to Mr. W. H. Mallet, Teviotdale, a bull. Mr. Mallet has a fine herd of grades, having used pure-bred bulls for many years, and his large monthly cheques show the wisdom of his course. To Mr. J. H. Patten, Paris, a very fine hull to head his fine herd of pure-breds. It is unnecessary to give their breeding individually, they are the best, and their dams are Record of Merit cows with large records. One yearling helfer to Mr. W. O. Palmer, St. Sebastien, Que.; one yearling heifer to Mr. Alfred Babcock, Hartington, Ont. Both of these are bred to Mercena's Sir Posch, beyond doubt the richest bred bull in Canada. Three young cows to Mr. F. C. Pettit, Burgessville, two of which are in the Record of Merit. This is Mr. Pettit's second purchase from Maple Grove within the year, making ten head in all. And last, but not least, at a long price, the great Tidy Abbekirk to Mr. D. W. Field, of Brockton, Mass. Mr. Field is gathering all the great cows of the breed into his fine barn, and has a wonderful herd. It is a great loss to the dairy interests of this country to let such cows go across the lines to Uncle Sam's Territory, but this must be the case as long as our dairymen and breeders are not progressive enough and willing to pay a reasonably liberal price for the offspring of such cows. I still have some very choice bulls fit for service to offer."

Treated by Three Doctors for a Severe Attack of Dyspepsia,

Got No Relief From Medicines, But Found It At Last In

Burdock Blood Bitters.

Mrs. Frank Hutt, Morrisburg, Ont., was one of those troubled with this most common of stomach troubles. She writes:-"After being treated by three doctors, and using many advertised medicines, for a severe attack of Dyspepsia. and receiving no benefit, I gave up all hope of ever being cured. Hearing Burdock Blood Bitters so highly spoken of, I decided to get a bottle, and give it a trial. Before I had taken it I began to feel better, and by the time I had taken the second one I was completely cured. I cannot recommend Burdock Blood Bitters too highly, and would advise all sufferers from dyspepsia to give it a trial."

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 agrand lot of heifers and young cows for sale at reasonable prices. Write or come and see us.

F. H. NEIL & SONS, Telegraph & R. R. station. LUCAN, ONT.

Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live stock organisation in the world. Hou, John Dryden, Fresident, Toronts, Canada. Address correspondence to MORTINE REVERING, Secretary, Lafayette, Indiana. om

Champion Cotswolds—Silver medal ram, silver medal ewe. Won all first prizes except one at Toronto, 1904. A number of choice ewes, bred to imported ram, for sale. E. F. PARK, Burgeseville, Ont. o

SHROPSHIRES 20 yearling ewes, 45 lambs, both sexes included, from Imp. ram. For particulars write to GEO, HINDMARSH, Alica Oraig P. O., Ont

DORSHTS A few ewe lambs yet for sale. Prices reasonable. Apply to R. H. HARDING.
Mapleview Farm. o Thorndale, Ont. Mapleview Farm.

NEWOASTLE HERD OF Tamworth Swine and Shorthorn Cattle We have for quick sale some 50 head of Tamwe have for quick sale some so need of them-worth swine, including several boars ready for service. A grand lot of boars and sows, from 3 to 7 months old. A few sows bred and ready to breed. These are nearly all the direct get of Celwill's Chotos, our sweepstakes boar at Teronto for sevemal years. Also a beautiful Shorthorn bull calf, about ready for service; besides a few choice heifer calves, heifers well forward in calf, and cows in calf. All at forward in calf, and cows in calf. All at moderate prices. All correspondence answered promptly. Write for what you want—we can generally supply you.

OOLWILL BROS., NEWOASTLE, ONT. TAMWORTHS AND HOLSTEINS Our Tamworths having taken a share of the prizes offered at Winnipeg Exhibition, have taken the diploma for the best herd of four sows, besides other prizes. Boars and sows from one to six months and 2 yearling sows. Also 6 choice bull calves of right type.

Also 6 The Gully P.O. Bertram Hoskin, Grafton, G.T.R. The Gully P.O.

Large English Berkshires For Sale - One choice sow, bred, and a choice lot of both sexes, from 2 to 5 months, all of the bacon type.

30 days.

Rose Bank Farm

Churchill, Ont. Rose Bank Farm

GOSSIP.

"We want a man for our information bureau," said the manager, "but he must be one who can answer all sorts of questions, and not lose his head."
"That's me," replied the applicant. "I'm the father of eight children."

Mr. Geo. M. Smith. Havsville. Ont. breeder of Large English Yorkshire pigs, writes: "Our hogs are doing exceedingly well. We just sold a fine young boar to Mr. G. Betchen, New Dundee, from Woodstock Lassie. And she has just farrowed a fine litter of ten, sired by Dalmeny Topsman 2nd. We are booking orders for them just now. They are a very fine litter, not a small one in the lot. Dalmeny Topsman tips the beam at seven hundred pounds, and is not fat."

Mr. Hugh Thompson, St. Mary's, Ont., in sending change of advertisement, "Thanks to the 'Farmer's Adwrites: vocate,' I have sold ail my Shorthorn bulls, except my imported one, as follows: To Michael Kelly, Downie, the yearling bull, Royal Butterfly; to David Louch, Belton, the yearling bull, Queenston Diamond, and to John Jickling, St. Mary's, Ont., the yearling bull, Wimple King 2nd. Those are all good animals, and the purchasers cannot fail to be sat-A slight mistake was made by your field marshal in his notes of my sales. The cow I sold to Kyle Bros., Ayr, was an English Lady cow, bred by the late W. B. Watt, Salem, Ont., and had a red bull calf at her foot by Scottish Beau (imp.), and a good one he is.'

The Woodroffe Herd founded in 1887, owned by Mr. J. G. Clark, Ottawa, inspected a few days ago by one of our staff, was found in fine condition, and paying well for the food consumed. Mr. Clark keeps a strict record of the amount of milk produced by each cow, weighing it individually at time of each milking. He has also been successful in producing and selecting cows with large teats, a very important point that was badly neglected a few years In this herd are several heavy milk producers that have also bred some choice young stock, some of which are Among the heaviest milkers in the herd for 1904 is Queen's Cwn, her record being 10189 lbs., testing 8.6; her record in 1903 being 11,262 lbs., testing 3.5. Next in order came Lennox Lass, with a record of 10,025 lbs. of 3.8 milk Maud S. of Hillhouse 13670 (imp.), that won the grand championship at the St. Louis World's Fair, is still in the pink of condition, notwithstanding the knocking about she got on the exhibition She produced 8,723 lbs. of 4.2 milk (422 lbs. butter within the year), and has at foot a very promising heifer calf that would make a grand start for a herd. Ayrshire Belle 7058 is another that has a very fine heifer calf at foot. She produced 8,190 lbs. of 3.6 per cent. The 20 head 1903, a total of 176,025 lbs. of milk, an average of 8,801 lbs. each, averaging a trifle better than 4 per cent. fat. 1904, the same number gave a total of 175,138 lbs., an average of 8,756 lbs. each, testing 4 per cent. fat, a very satisfactory record, and a test that every dairy herd should either stand or fall by Woodroffe Polly 13040, winner of the dairy test at Guelph, 1903, is still giving good returns, her record for the past year being 9,621 lbs. of 3.8 milk, besides a valuable calf. In the last three years nine cows from this herd won in dairy tests five firsts, three seconds, one third, and two fourth prizes, and last, but not least, is the great record that this herd made at the St. Louis World's Fair, a record that any breeder should feel proud of, particulars of which were given in the "Farmer's Advocate" of September 29th, 1904, a record that the community of Ottawa district recognized by presenting Mr. Clark with a beautiful silver trophy and an embossed address, showing their appreciation of the honors he had brought to the district and the

Dominion. Mr. Clark has several young things both male and female, sired by his St. Louis first-prize winning bull, for disposal, among them some really good ones that should be picked up early. Yorkshire swine are also bred at Woodroffe, and like the Ayrshires are kept for profit and not for fancy, none but the best being sold for breeders. When in need of such stock, make your wants known

We Offer \$1,000

For a Disease Germ That Liquozone Can't Kill.

fer \$1,000 for a disease germ that it cannot kill. We do this to assure you Liquozone goes into the stom that Liquozone does kill germs.

germs in the body without killing the germ can escape it and none can retissues, too. Any drug that kills germs sist it. The results are inevitable, for is a poison, and it cannot be taken internally. Medicine is almost helpless germs are killed. Then Liquozone, in any germ disease. It is this fact acting as a wonderful tonic, quickly which gives Liquozone its worth to restores a condition of perfect health humanity; a worth so great that, Diseases which have resisted mediafter testing the product for two years, through physicians and hospitals, we paid \$100,000 for the American rights. zone, and it cures diseases which medican rights. And we have spent over one million meet—wherever you are—can tell you dollars, in one year, to buy the first bottle and give it free to each sick one who would try it.

Acts Like Oxygen.

Liquozone is not made by comoounding drugs, nor is there any alcohol in it. Its virtues are derived solely from gas—largely oxygen gas—by a process requiring immense apparatus and 14 days' time. This process has, for more than 20 years, been the constant subject of scientific and chemical esearch.

The result is a liquid that does what oxygen does. It is a nerve food and blood food—the most helpful thing in the world to you. Its effects are exhilarating, vitalizing, purifying. Yet it is an absolutely certain germicide. The reason is that germs are vegetables; Dandruff—Dropsy

On every bottle of Liquozone we of-|and Liquozone-like an excess of oxy-

Liquozone goes into the stomach, into the bowels and into the blood, And it is the only way known to kill to go wherever the blood goes. No cine for years yield at once to Liquocine never cures. Half the people you of cures that were made by it.

Germ Diseases.

These are the known germ diseases. All that medicine can do for these troubles is to help nature overcome the germs, and such results are indirect and uncertain. Liquozone attacks the germs, wherever they are. And when the germs which cause a disease are destroyed, the disease must end, and forever. That is inevitable.

Asthma Abscess-Anæmia Bronchitis Blood Poison Bright's Disease Bowel Troubles Coughs—Colds Constipation
Catarrh—Cancer
Diarrhea

Hay Fever-Influenza Kidney Disease La Grippe Leucorrhea Liver Troubles Malaria-Neuralgia Many Heart Troubles Piles—Pneumonia Pleurisy—Quinsy Rheumatism Scrofula-Syphilis Skin Disea Stomach Troubles

Dyspepsia Eczema—Erysipelas Fevers—Gall Stones Goitre—Gout Gonorrhea-Gleet

Throat Troubles Tuberculosis Tumors—Ulcers Varicocele Women's Diseases

All diseases that begin with fever—all inflammation—all catarrh—all contagious diseases—all the results of impure or poisoned blood.

In nervous debility Liquozone acts as a vitalizer, accomplishing what no drugs can do.

50c. Bottle Free.

If you need Liquozone, and have never tried it, please send us this coupon. We will then mail you an order on a local druggist for a full-size bottle, and we will pay the druggist ourselves for it. This is our free gift, made to convince you; to show you what Liquozone is, and what it can do. In justice to yourself, please accept it to-day, for it places you under no obligation whatever. Liquozone costs 50c. and \$1.

CUT OUT THIS COUPON,

for this offer may not appear again. Fill out the blanks and mail it to The Liquozone Company, 458-464 Wabash Ave., Chicago. My disease is.....

I have never tried Liquozone, but if you will supply me a 50c. bottle free I will take it.

Give full address-write plainly.

Any physician or hospital not yet using Liquozone will be gladly supplied for a test.

HILLCREST HERD OF ENGLISH BERKSHIRES JOHN LAHMER, VINE P. O.

for young pigs for May and June delivery. A few good young boars on hand.

Woodstock Herd of Large White



Present offering: A choice lot of young sows, bred to Craig-crook Hero, 1st prize boar at Edinburgh, 1904. Also a number of imp.-in-dam boars and sows of September farrow. Pairs supplied not akin. Write

H. J. DAVIS, WOODSTOCK, ONT.

SHORTHORNS and BERKSHIRES JOHN RACEY, Jr.,

choice young sows in farrow; also young pigs and several young Shorthorn bulls. Prices very reasonable if taken at once Lennoxville, Que.

IMPROVED LARGE YORKSHIRES Special low prices on all stock through Feb ruary and March. I offer imported, and from imp. stock, boars from 6 months to 2 years Imported, and from imp. stock, sows in farrow one to three years. Sows ready to breed imp. stock. Weston Station. L. ROGERS

OHOICE LARGE ENGLISH YORKSHIRES

From imported and home-bred sows and boars. Sows and boars all ages for sale, and sows in farrow. Write Jas. A. Russell, Precious Corners, Ont.

Berkshires Uakdale



Of the largest strains Imported fresh from England. The produce of these and other noted Let me book your

L. E. MORGAN, Milliken Stn. and P.O.

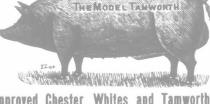
WOODSTOCK HERD of BERKSHIRES



Am booking orders for spring pigs, sired by Pol gate Doctor (Imp.) No. 78492. Geo. Thomson & Son, Box 1, Woodstock, Ont.

Owing to unforeseen circumstances, I have been unable to supply customers for

Now is the time to book your orders



Improved Chester Whites and Tamworths From this herd have been winners at leading exhibitions of Ontario and Quebec for a number of years. New importations, direct from England, will arrive in May. We have for sale choice lot of young sows, brad; also boars, 3 to 4 months old. Am booking orders for spring pigs. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe arrival guaranteed.

H. GEORGE & SONS, Crampton, Ont.

LARGE ENGLISH YORKSHIRES



most approved type, of both sexes, all ages, for sale at all times. We have more im in our herd than all other breed ers in

Pigs of the

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 champions and grand champions. Prices reasonable. D. C. FLATT & SON MILLGROVE, ONT

SNELGROVE BERKSHIRES



A number of large, good sows, to farrow in March and April, and expect to have some choice young pigs for sale. Now is a good

time to order. Our herd has won more first prizes at leading shows in Ontario than any other. Pigs of different ages for sale. Write for prices.
SNELL & LYONS, Snelgrove, Ont.

YORKSHIRES for sale, all ages, from imported prizewinning stock, of both sexes. Pairs not akin. GEO. M. SMITH, Haysville P. O., Ont.

Bargains YORKSHIRES during March and in April. Orders booked for Holsteins calves of both sexes. For description, price, etc., write Write me if you want any. For sale, cheap, pure-bred Berkshire boar, registered.

F.S. Wetherall, Rushton Farm, Cookshire, Que.

for Holsteins calves of both sexes. For description, price, etc., write

R. HONEY, Minster Farm, Brickley, Ont.

ORCHARD HOME HERD (Registered) Large English Yorkshires and Berkshires

Only choice stock kept, imported and homebred, of most approved type; selected with great care and at high prices. We ship, express paid. Take stock back if not satisfactory. We buy our breeders, therefore best not reserved. Our motto: "Quality and square dealing." Choice young stock at reasonable prices.

S. D. CRANDALL & SONS, Cherry Valley, Ont.

LARGE ENGLISH BERKSHIRES



A number of nice young sows, bred to imported boar, my imported boar, which are due to far-

which are due to farrow in April and May.
Also a few boars
ready for service.
Have some nice things three, four and five
months old, of both sexes. My herd won all the
champion prizes at Dominion Exhibition in
1904.

WILLIAM WILSON, Box 191, Brampton, Ont.

ENGLISH BERKSHIRES. Her Grace the Duchess of Devonshire's Berkshire Herd. Winners of 102 awards in 1904, including champion against all breeds in carcass competition, London Fat Stock Show. The breeding sown are sired by the champion boar, Baron Kitchener 8403. Polegate Decoy, Polegate Dame, Polegate Dawn—winners in England, Canada and United States—were exported from this herd. For prices and particulars apply to: Ocompton Estate Office, Eastbourne, or to F. A. Walling, 7 Cavendish Cottages, Eastbourne, Sussex, England oion against all breeds in carca s competition

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.

GLENBURN HERD OF

DRKSHIRES

winners of gold medal three years in succession, offers for sale until New Year's a number of fine young sows and boars, from 3 to 4 months old, at \$12 each.

DAVID BARR, Jr., Box 3, Renfrew P.O.

For Sale—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigrees and safe delivery guaranteed. Address:

6. B. GEORGE, Putnam, Ont.

MAPLE GROVE YORKSHIRES FOR SALE. Pigs from 2 to 7 months old, from imported and home-bred sires; sows in farrow. Reduced prices for 30 days. One extra large Toulouse gander and two Pekin bantam cockerels. T. J. COLE, Bev 158, Bowmanville,

Steel Roofing and Siding, \$2.00 per 100 Sq. Ft.

Painted red on both sides. Most durable and economical covering for Roofing or Siding, for Residences, Houses, Earns, Elevators, Stores, Churches. Pouliry Houses, Cribs, etc. Easier to lay and will last longer than any other covering. Cheaper than wood shingles or etc. Easier to lay and will last longer than any other covering. Cheaper than wood shingles or late. No experience necessary. A hammer and snips are the only tools required. It is semilate. No experience necessary. A hammer and snips are the only tools required. It is semilated high grade steel, Brick or Stone Siding at \$2.00 per 100 Square Feet. Pedlar's Patent Steel Shingles at \$2.50 per 100 Square Feet. Palned From Findley and From Store Siding and Cellings in all grades. Thousands of buildings through the Dominion covered with our Sheet Metal Goods making them FIRE, WATER AND LIGHTNING PROOF.

Send in your order for as many squares (10 x 10 feet) as you require to cover your new or old building. The very best roofing for this climate. We can suppy Eave Trough, all sizes, Corrugated or Plain Bound, Conductor Pipes, Shoes. Elbows, Spikes, Tubes.

All goods shipped day after order is received. We are the largest concern of the kind under the British Flag. Established 1861. Capital Invested \$150,000.00.

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F YOU COME TO ME AND I TELL YOU THAT I CAN cure you, I've got confidence enough in my treatment to take all the chances. I am curing hundreds of weak men and women every day, and I know what I can cure and what I can't. If you will secure me you need not pay until cured.

WEAK, PUNY MEN.

I know that no man remains a weakling because he wants to. I am sure that you want to overcome every indication of early decay that has shown itself on you. I don't think the man lives who would not like to feel as big and strong as a Sandow, and I know that if you have a reasonable foundation to build upon I can make you a bigger man than you ever hoped to be. I want you to know that, you who can't believe it, and I want you to have my book in which I describe how I learned that strength was only electricity, and how I learned to restore it; also I want to tell you the names of some men who will tell you that when they came to me they were physical wrecks, and are now among the finest specimens of physical manhood.

I have devoted my life to the development of manly and womanly vigor. I've made a great success. My methods are now being approved by the

greatest scientists and doctors, and copied. I've proven that electricity is the basis of all animal life, and that "weak men," dyspeptics, rheumatics, sufferers from lest energy, weak kidneys, pains in the back, head, chest and shoulders, from varicocele and its allied weaknesses, etc., are weak in electricity.

My Electric Belt Restores this Life in a Few Weeks and Cures every time.

You can have freedom from Pain and again be given life energy and the vigor of youth if you wear

McLAUGHLIN'S ELECTF

with free Electric Suspensory for weak men. Easy to wear-Cures while you sleep. Tell me where you are and I will give you the name of some one in your town that I have

Sore Back and Weak Kidneys Cured to Stay

Dear Sir.—Your favor of the 19th inst. to hand, and in answer would say that your Belt has made a permanent cure of my case. I have had no occasion to use your Belt for over a year, and my back feels as strong as ever it did, and have also no trouble with my kidneys. I can highly recommend your Belt to any who are troubled with sore back, weak kidneys, or from any other cause. I lose no opportunity in recommending the Belt to every one that I see in need of it. Yours truly, GEO. S. WEBB, Aberdour, Ont. Dr. McLaughlin:

Troubles Have Never Returned.

Dr. McLaughlin: Dear Sir,-You will think that I have forgotten you, but it is not so, as I have been away from home and just returned. With regard to the benefits I have received from your Belt, I must say that they are most lasting and permanent. I have had none of my trouble since I stopped wearing the Belt in 1901. Wishing you all manner of success in your business, I remain, yours truly, G. L. SAVAGE, Chesley, Ont.

Don't delay trying it. Your future happiness depends on your checking this drain upon your vitality, so stop it now and you can be sure of a long and vigorous life, full of the joys of a healthy vigor.

Don't drug. Drugs can't cure you, as you know, if you have tried them. My Belt cures because it increases your nerve power and vitality. Electricity renews the youthful strength; that cures. If you will call I will give you a free test of what I can do

call I will give you a free test of what I can do. SPECIAL NOTICE—Dr. McLaughlin's Electric Belt is the only electric appliance sold in Canada with which the patient has the care of a physician during the time it is used. Agents or drug stores are not allowed to seil my Belts.

FREE BOOK-Every who admires the perfection of physical strength should read my beautifully illustrated book. It tells how strength is lost and how I restore it with my Electric Belt. I will send this book, closely sealed, free upon request. If you are not the

man you should be, write to-day.

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Dear Sir-Please forward me one of your Books, as advertised.	
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COSSIP.

VALUABLE GIFTS TO THE OHIO AG RICULTURAL COLLEGE.

To the Editor:

Recently some very valuable gifts have been made to the College of Agriculture of the Ohio State University, for they add much to the working equipment in the Animal Husbandry courses.

Mr. J. McLain Smith, Dayton, Ohio, Secretary of the Red Polled Cattle Club. presented six head of registered Red Polled cows and heifers, one of which was This was a very valuable imported. gift, for the cattle were of choice breeds ing and represented superior individuals. Mr. Smith has long been a prominent breeder and importer of Red Polls, and has for many years taken a deep and unselfish interest in the welfare of the College of Agriculture.

Mr. John A. Gerlaugh, of Harshman, one of Ohio's celebrated Shorthorn breeders, has given the University a pair of select pure-bred white Shorthorn steers. One of these, a grandson of the great British bull, Marengo, has averaged nearly three pounds a day since birth, mine months ago. Mr. Gerlaugh, with com-mendable State pride, desired these for exhibition before the live-stock students and visitors of the University, as samples of high-class Shortnorn steers.

Ohio has some fine herds of Aberdeen Angus cattle. While not so well knows as some, that of Mr. O. A. Estle, of Springfield, is of much merit. Mr. Estle has just donated to the University pure-bred Angus steer calf, ten months old, that will be a credit to the herd and of much use among the steers used in class work.

Recently Mr. D. E. Williams; of Columbus, gave the College of Agriculture grade Hereford steer calf, a selection from a large bunch of choice young calves, that promises to develop into an indididual of unusual excellence.

The latest gift of the recent contributions is from Mr. James Buckingham, of Zanesville, O., one of the prominent citizens of Muskingum Co., a former member of the State Board of Agriculture and one keenly interested in agricultural progress. For many years of a long life, Mr. Buckingham has been much in-terested in problems of breeding, and especially so regarding horses. During this period he has collected many valuable books. He has now presented the University with several hundred bound volumes, some of which are of great value to animal husbandry students. Among the books given was the English Sporting Magazine, 1821-1838, 30 Sporting Magazine, 1821-1838, 30 volumes; American Turf Register, complete from 1880-60; Turt, Field and Farm, 80 volumes, complete 1865-92; Spirit of the Times, 9 volumes; Wallace's Horse Monthly, first 19 volumes; American Studbook, by Bruce, 4 volumes; Whyte's History of the British Turk, 1840; Darville on the English Rece Horse, 1846; Wallace's Yearbook, & : the Horse of America, by Forrester; The Wool Grower, 8 volumes, and the Country Gentleman, 68 volumes, as well as many other books. with the large collection of he.d. flock and stud books in the library, give Ohio State University live-stock students very unusual opportunities for reference.

The University greatly appreclates these gifts and the generosity of the givers. C. S. PLUMB,

Professor of Animal Husbandry. [The example of our Sir Wm. Mc-Donald is thus being daily followed to the benefit of agriculture.]

The veteran importer, Mr. Wm. Colquhoun, of Mitchell, Ont., has again secured a couple of big, sound, thick, wellbred horses for his season's trade. These were shipped to him last month by Messrs. A. & W. Montgomery, Netherhall and Banks, Kirkcudbright. One is got by the celebrated H. and A. S. and R. A. S. E. first-prize horse, Prince Shapely (10111*), and the other by the renowned Cawdor Cup horse, Prince of Carruchan (8151), which never won anything but a first-prize ticket when he entered a show-ring, and was awarded the Cawdor Cup more than once. Mr. Colquhoun has always purchased the thick. short-legged type of Clydesdale, with good feet and plenty of bone. These good feet and plenty of bone. two horses will doubtless please his patrons as well as the many brought out by him in the past.

THE FARMER'S ADVOCATE. ADVERTISE IN

IF IT'S NOT A GOOD MOWER IS IT WORTH HAVING?

Thousands of Canadian farmers demand Deering and McCormick mowers—they surely must be worth having. Ask your neighbor why he likes his Deering or McCormick he knows. He will tell you that they cannot be surpassed for all-around satisfactory mowing, due to the method of construction and the material used.

Ideal Mower

Made in Canada.

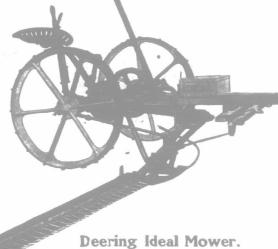
The unsurpassed cutting power of the Deering Ideal Mower is the result of a construction which is mechanically correct, together with sufficient strength of the various parts to give unyielding stability, and with sufficient weight to keep the wheels firmly on the ground at all times.

The working parts of the Ideal Mower are made of the best steel, malleable and wrought iron procurable. The pitman is long and strongly made of well-seasoned second growth hickory. The wheels are high and powerful, and connected by a heavy steel axle. The frame is stanch and wide, and straddles the cut grass so the wheels travel in clear tracks.

The main axle and the gear

The main axle and the gear shaft are provided with the famous Deering roller bearings, minimizing friction at these im portant points. Steel

bars are placed next to the beveled pinion to overcome end trust. The gears are rightly placed on the axle and the mower has admirable balprevent ing side draft.



4½-foot and 5-foot Cut.

THE DEERING LINE INCLUDES:

Deering Ideal Mower

Deering Ideal Giant Mower

Deering Ideal One-Horse Mower Deering Ideal Vertical-Lift Mower

DEERING McCORMICK

Vertical-Lift Mower

Made in Canada.

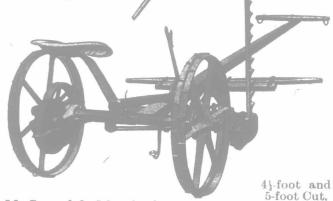
While the McCormick Vertical-lift Mower is specially designed for cutting on rough and stumpy ground, this machine is also well adapted for general use. In brief, it may be said to be an unexcelled all-purpose mowing machine.

The main frame is made in one piece, and therefore is substantial. It is equipped with devices which enable the operator than the property of a vertical residence is the contract of the c

to raise the cutter bar even to a vertical position or lower it withour stopping the team; therefore, with the McCormick verticallift mower the driver can cut close to a tree, stump or rock, and thus save all the hav.

The cutter bar on this mower, as on all McCormick mowers, is very strong, being reinforced with a heavy rib extending the full length of the bar.

The long pitman insures a smooth and evy stroke of the knife, the driving motion being almost straight and direct. The machine is light in draft



McCormick Vertical-Lift Mower.

THE MCCORMICK LINE INCLUDES:

The McCormick New 4 Mower The McCormick New Big 4 Mower.

The McCormick Vertical-Lift Mower.

The McCormick Little Vertical-Lift Mower

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