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AND HOME MAGAZINE

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Census and Statistics
Dept. of Agriculture
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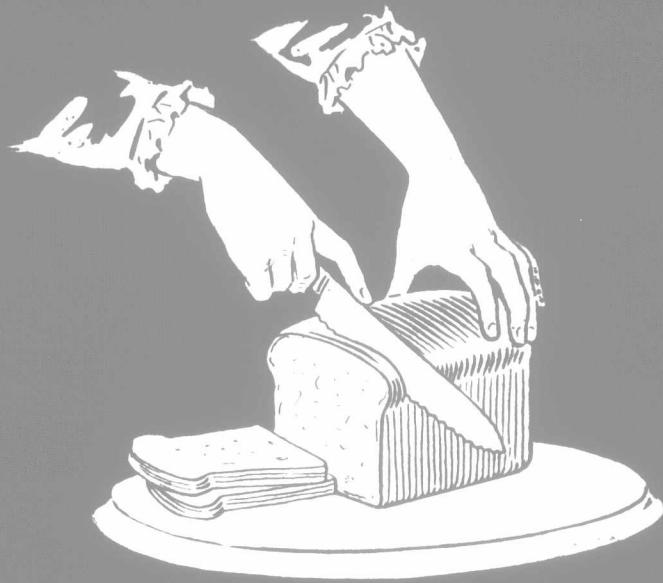
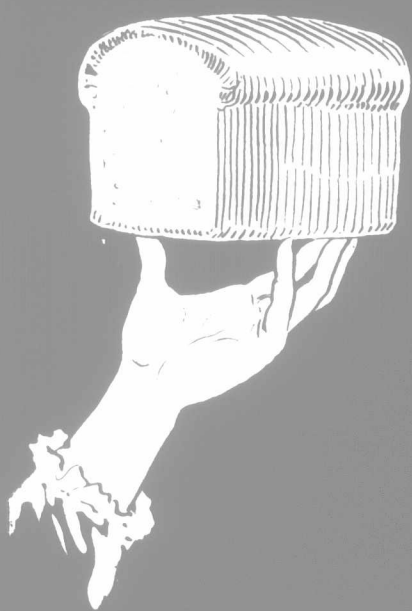
* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

VOL. XLV.

LONDON, ONTARIO, MARCH 31, 1910.

No. 914

Feels Light Cuts White Tastes Right



The Oven PROVES The Quality of

PURITY FLOUR

Milled From All Western Hard Wheat

"More Bread and Better Bread"

Western Canada Flour Mills Co., Limited

Bagpipes



We're the largest Bagpipe dealers in North America.

Lowrie's famous make is the kind we sell. Write to-day for

FREE CATALOGUE

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Chambers, Bags, Reeds, Etc., in big stock.

Repairs promptly done. Write for catalogue to-day.

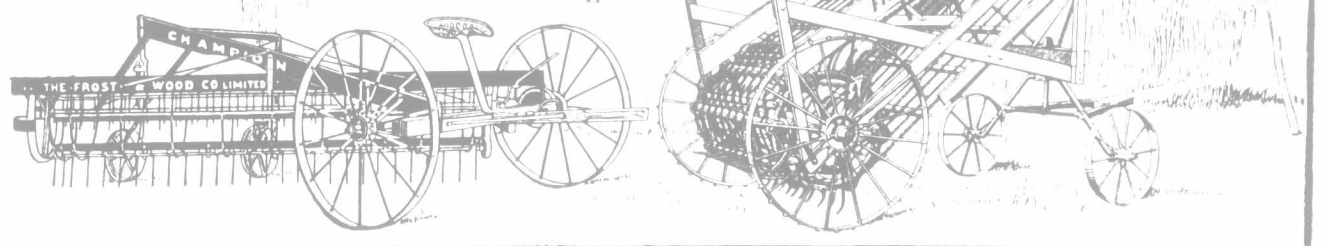
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LIMITED,
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Frost & Wood Co Limited

Do A Bigger Day's Work With Champion Side Delivery Rake and Champion Hay Loader

Sulky rakes are all right as far as they go, but you can do a far bigger day's work in the hay field by using the "Champion" Side Delivery Rake and the "Champion" Hay Loader. The Side Delivery Rake shakes up the hay so it will be in best condition for curing and leaves it in a continuous windrow ready for the "Champion" Hay Loader. This machine then follows along and loads the hay just as fast as you please—two tons in ten minutes. Just let us send you catalogue F 41 so you can see for yourself how much you require these machines.

Frost & Wood Co., Limited
Smith's Falls - Canada



Northern Ontario

The forest and mineral wealth of Northern Ontario has attracted many people from all parts of the civilized world.

One ninth of the world's reported output of silver in 1908 was taken from Ontario mines.

New discoveries of undoubted richness are being constantly reported from sections far distant from the far-famed Cobalt. Yet a more certain reward is insured to the settler who acquires for himself 160 acres of the rich agricultural lands now open for settlement and made accessible through the construction of railways and Colonization Roads.

The fertility of the soil is unsurpassed. The timber is in demand at a rising price. Mining, railway and Colonization Road construction, lumbering, etc., afford work in abundance to those who have not the means to remain on their farms continually. These also provide a market for farm produce at prices unequalled anywhere.

Cochrane, the terminus of the T. & N. O. Ry., on the G. T. P. Transcontinental Railway, now under construction, is in the same latitude as the southern part of Manitoba, and 800 miles nearer the seaboard.

That the experimental stage is past is clearly demonstrated. The country is rapidly filling up with settlers from many of the other Provinces, the United States and Europe.

For information as to terms of sale, homestead regulations and for special colonization rates to settlers and for settlers' effects write to

D. SUTHERLAND, The Director of Colonization,
Parliament Buildings, TORONTO.
HON. J. S. DUFF,
Minister of Agriculture.



Synopsis of Canadian North-west Land Regulations.

ANY person who is the sole head of a family, or any male over 18 years old, may homestead a quarter-section of available Dominion land in Manitoba, Saskatchewan, or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-Agency for the district. Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres, solely owned and occupied by him, or by his father, mother, son, daughter, brother or sister.

In certain districts a homesteader in good standing, may pre-empt a quarter-section alongside his homestead. Price, \$3.00 per acre. Duties—Must reside six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

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Deputy of the Minister of the Interior.

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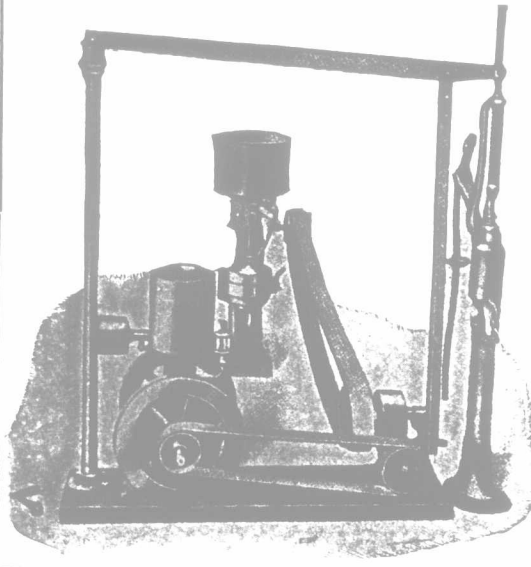
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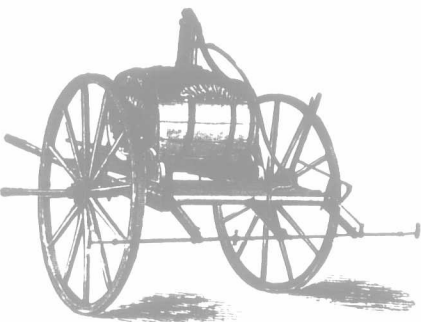
1½ TO 40 HORSE-POWER.



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Grain Grinders,
Pumps,
Tanks,
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Concrete Mixers,
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Send for catalogue.

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The HAND SPRAMOTOR No. 1 or No. 2 has 4 to 8 nozzles, all brass sprayer. The wheels and nozzles are adjustable, from 26 inches to 36 inches. Vertical adjustment from rack 16 inches. Automatic vertical nozzle adjustment brass spramotor. Ball valves, automatic compensating plunger. Mechanical agitator. It is mounted on a cart with strong, hardwood frame. Has 52-inch wooden wheels with iron hubs and steel axles. For one horse.

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Any size with the London Adjustable Silo Curbs. Wood Silos soon rot and fall down. Steel Silos have a very short life, as the acid from the corn eats the steel, and they soon rust out. There is always danger of such an edge around the edge caused by freezing. A CONCRETE SILO once built will last for ages. Costs less to build than steel silos and gives absolutely no waste of corn. Thousands of farmers testify to the merit of concrete silos. Send for Catalogue. We manufacture a complete line of Concrete Machinery to suit your requirements.

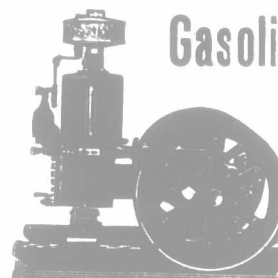
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Largest manufacturers of Concrete Machinery in Canada.

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Just suits the CANADIAN FARMER. It is simple in design.

Does not easily get out of "kilter." Your boy can start it.

LOOK HOW COMPACT.

No conglomeration of tank and pipes, always in the way.

Booklet No. 57 will post you on the principles of Gasoline Engines.

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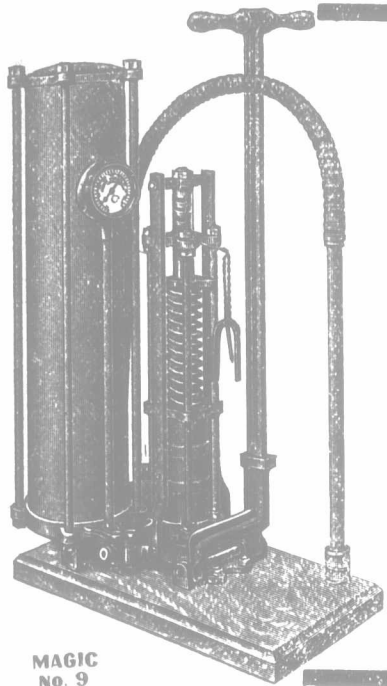
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Seed Oats and Barley—Improved Ligawa, pure, clean, plump sample; Mandscheuri barley, a grand lot. Satisfaction guaranteed. For prices, samples, write

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MAGIC PUMP No. 9.

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Challenge Power Sprayer.

Will spray 400 gallons an hour at 200 pounds pressure.

LITTLE GIANT No. 70.

High-powered barrel pump.

These pumps are made for DURABILITY, EFFICIENCY and POWER.

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It is a permanent solution of highest insecticidal and fungicidal power. Analysis is stamped on every package, and it is guaranteed by a strong CANADIAN COMPANY. It is not an experiment.

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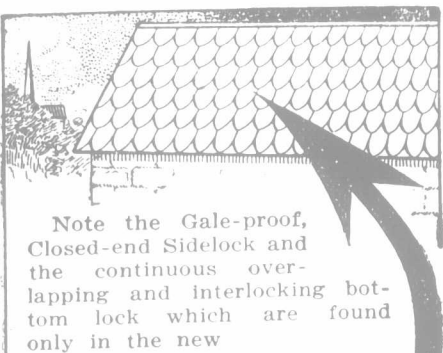
Arsenate of Lead will control Codling Moth, Potato Bugs, and all chewing insects. Will not burn foliage. Rains will not wash it off. Highest analysis of Arsenic Oxide.

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Note the Gale-proof, Closed-end Sidelock and the continuous overlapping and interlocking bottom lock which are found only in the new

"GALT" SHINGLES

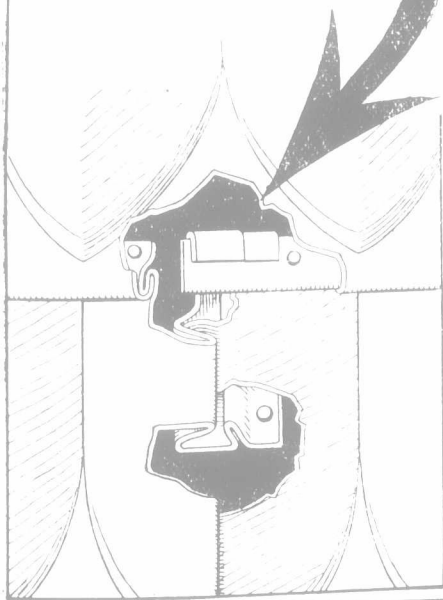
This ingenious and yet simple and easy-fitting construction makes a "Galt" Shingle roof absolutely weather-tight. It prevents wind from driving rain or snow up and out of the top end of side lock, as so often happens with ordinary metal shingles. There is not even the smallest opening—this cannot be truthfully claimed for any other steel shingle.

The material is the Best British Galvanized Steel embossed in a bold Gothic Tile pattern—a thing of beauty and of joy forever. Catalog "B-3" gives complete details of this newest and best shingle.

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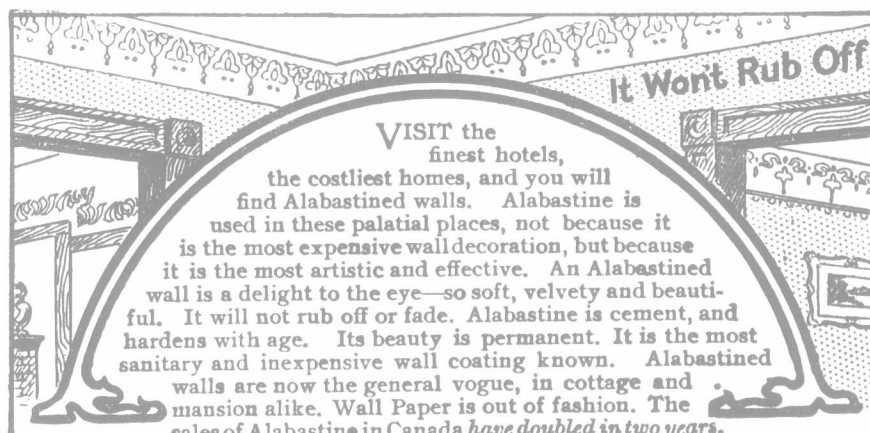
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Please send free particulars of your Color Scheme and Free Stencil offer to

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The Alabastine Co., Ltd., 31 Willow St., Paris, Ont.

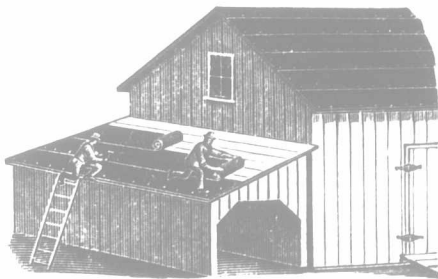


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Standard Woven Wire Fence

is heavy steel wire, well galvanized, and locked with the "Tie That Binds"—our exclusive invention, which being an oval loop allows a long bend in the running wires. STANDARD STEEL FENCE POST is No. 12 gauge steel, bent at right angle, and punched so that the fence is held secure without staples. Lots of fence facts in our book that you ought to know. Write for free copy and sample lock.

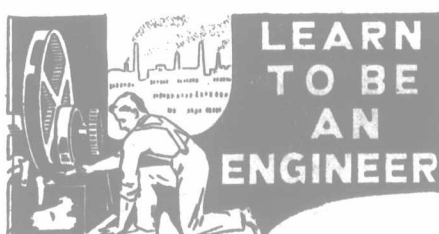
The Standard Wire Fence Co. of Woodstock Limited, Woodstock, Ont. and Brandon, Man. 15

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For steep or flat roofs, waterproof, fire-proof; easily laid; cheaper than other roofing. Send stamp for sample, and mention this paper.

HAMILTON MICA ROOFING COMPANY,
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Do You Intend Building a House, Barn, Greenhouse or Silo?

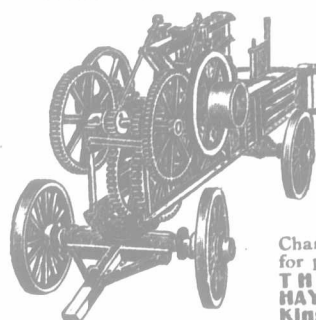
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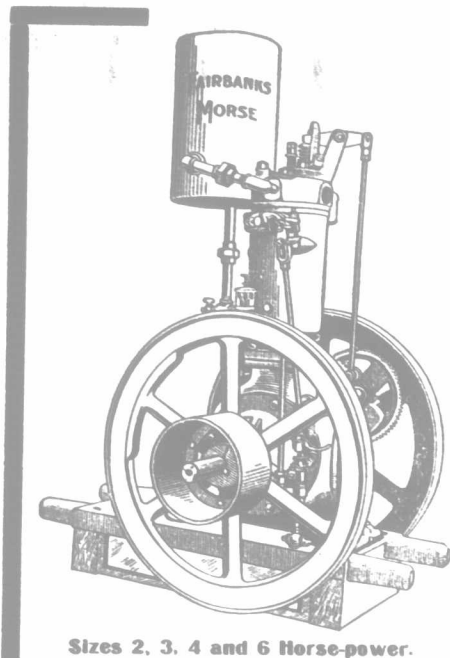
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FAIRBANKS-MORSE GASOLINE ENGINES

Portable Vertical Type with Evaporator Tank.
Especially Designed for Farm Work.

Special Terms

TO
FARMERS

Send me Catalogue G. E. 102, F.A.,
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Our Gasoline Engines meet every requirement demanded of an engine for general farm power. They are so simple that an ordinary farm hand can operate them, and in addition are practically fool-proof and frost-proof. Thousands of other farmers have found these engines money-savers on the farm, and you can realize the same results.

Send for our free catalogue TO-DAY, describing our complete line of Farm Engines. It means money saved for you.

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TESTED SEEDS
TRUE - VIGOROUS - RELIABLE

Have Produced the Finest Crops for the past thirty years.

If you grow crops of any kind or description, a request by mail will bring you our handsomely illustrated catalogue. Write at once. Do it right now. May mean dollars in harvest.

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Our soil being a deep, rich sandy loam, and our many years' experience in commercial strawberry growing, helps us to offer you first-class, vigorous, well-rooted plants. Leading varieties. Send for price list to-day.

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GILSON GASOLINE ENGINE

For Pumping, Cream Separators, Churns, Wash Machines, etc. Free Trial. Ask for catalog-all sizes.

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A Commercial school of the highest grade. A school without a superior in the Dominion. Catalogue free.

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You can operate the Aspinwall No. 3 Potato Planter without the assistance of another man. The Aspinwall No. 3 not only saves you the extra man's pay, but also plants one-third faster than machines requiring two men. The hand that handles the seed on the Aspinwall No. 3 is the iron hand. Unlike the human hand, it never gets tired. It drops 99 per cent. good. You can use different sizes of seed and vary the distance of planting without requiring change of pickers. No other planter can compare with it in accuracy or handle as large a range of seed.

Send for our catalog F1. We are largest manufacturers of potato machinery in the world, and we can give you valuable facts on profitable potato culture.

The Aspinwall Mfg. Co.
Jackson, Mich., and Guelph, Can.

Aspinwall
No. 3 Potato Planter

WHEN YOU BUY, BE SURE THAT IT IS A

Tolton Harrow

ALL STEEL

ALL STEEL

Section and Flexible All-Steel Harrows with an unequalled record. A large variety suitable for the requirements of any country, made in different widths to suit purchasers. Pre-eminently the most efficient, strongest, and longest-wearing Harrows is our unqualified guarantee. Parties wishing a first-class Harrow will do well to write us direct or apply to the local agent. Address Dept. F.

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For Security Invest in Our Debentures.

One of the most stable of secure investments are our Debentures. Secured by assets of over \$4,000,000 loaned after most thorough investigation on first mortgage real estate only. Rate of interest is 4 per cent., payable half-yearly. Our Debenture investment needs no attention—causes no anxiety. Write or call for full information.

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KINDLY ANSWER THE ABOVE

PURE BONE MEAL IS THE CHEAPEST FERTILIZER.

THIS PLANT FOOD IS ALL FROM OUR CANADIAN SOILS AND SHOULD ALL GO BACK SEND FOR PRICES, ETC.

THE W.A. FREEMAN CO. LIMITED
HAMILTON, CANADA.

SEED CORN Twenty-one varieties. All will grow. Fifty years' experience. Send for free catalogue.

M. A. Jones, Ruthven, Essex Co., Ont.

The Farmer's Advocate and Home Magazine

"Persevere and
Succeed."

Established
1866.

Vol. XLV.

LONDON, ONTARIO, MARCH 31, 1910

No. 914

EDITORIAL.

Weed seeds are the most vital of any. Most ground has plenty of such already. Don't sow more.

Second Chambers, being commonly less directly representative than the so-called "Lower" Houses, naturally become bulwarks of class interest and privilege.

Do not sow smutty grain if you can conveniently help it. But, if seed oats, barley or wheat is used that is in any degree affected with smut, treat it with formaldehyde.

With France, Germany and the United States actively suing for favor, Miss Canada must experience a flush of self-conscious pride to realize her present and prospective importance as a factor in world commerce.

If you have a hard-clay hillside, not too steep to mow, seed it to alfalfa. If you have no such land, sow alfalfa, anyway, on the likeliest field you have. A sweet soil, well-drained both above and below, clean, and in good heart, is demanded.

Cold comfort for the dogs is Dr. Rutherford's non-committal speculation that if the muzzling order is strictly obeyed it may be withdrawn in about a year's time. His words will probably sound the death knell of many a nondescript canine.

If every American President could spend a few weeks in Canada every year, prior to his inauguration, as President Taft used to do, it would conduce greatly to international amity. Personal acquaintance is an effective parry of international friction and ill-will.

We must still preach the gospel of clover. Sow it liberally on the fields, seeding down every white-straw grain crop. Scatter it in handfuls about the buildings, along the lanes and roadways, and in waste places everywhere. Its foliage and bloom will gladden your heart, its tissue will fatten your stock, its growth will enrich the soil. Blessed be clover. We do not yet fully realize its virtues.

Every Canadian citizen should know what his legislators are doing. "The Farmer's Advocate" makes it a point to present each year a succinct review of legislation bearing upon agricultural interests enacted at Ottawa, as well as at the Provincial capitals of the Eastern Provinces. The agricultural legislation and appropriations of a whole session are thus presented in a nutshell. This week the Ontario Legislature's work is thus reviewed. Read carefully, informing yourself concerning new laws, and amendments to the old.

The water-powers of Canada are roughly estimated as capable of a possible development of nearly seventeen million horse-power, said Hon. Clifford Sifton, in his inaugural presidential address at the first annual meeting of the Conservation Commission. Of this enormous energy, only about 511,000 have been developed. Were there no other natural asset worth guarding, this alone would amply justify the utmost efforts the Commission may put forth to secure the economical development of natural resources on behalf of the public, to whom they now and always should belong.

Seed Corn Should Be Tested.

At the Corn Show, held in Essex last winter, Professor Klinck gave very full and clear instructions in one of his daily lectures as to how to determine whether seed corn was vital or not, by examination of the grain itself. He added, however, that while an expert might be able by this means to reject much seed that should not be planted, the actual condition of vitality could only be certainly known by a germination test. He strongly advised all planters to make such a test, more especially for the coming season, as the fall of 1909 was unfavorable for the thorough ripening and drying of corn for seed. It is not wise to plant corn that fails to test at least 90 per cent. of vital grain.

The ordinary method of testing is to take from the grain, after being shelled, 100 kernels, and plant these where conditions for germination are favorable, in a flower-pot or on the surface of a box of moistened sand kept covered with a damp cloth, and at the temperature of a living-room. In a week or less it will have sprouted, and the number germinating strongly can be counted. The root-sprout is the first to appear, and Prof. Klinck warned against judging of vitality by its appearance only. Some kernels that send forth a root may fail to throw a strong upward shoot. Before determining percentage, it is better to wait until the upward sprout has had time to show itself.

But a test of a sample taken from bulk seed is not altogether satisfactory. If there is shown to be any considerable percentage of dead grain, the ordinary practice is to plant just so much thicker; but, as the planter cannot distinguish between good and bad kernels, and as they do not always come in the same proportion, the result is an uneven stand, some hills having too many stalks, and others very few, or none at all. For that reason, and also because it is well to reject not only dead seed, but that which is weak in vitality as well, the ear test is strongly recommended.

With the following method, a man can place to test six to eight bushels of corn in one day, but most Canadian planters require but a portion of that amount. A tester, in the form of a shallow, open-topped box, can be made from ordinary inch lumber, and of any convenient size, say, about two by three feet, and three inches deep. Through the sides and ends holes are bored about two inches apart, and one-half inch from the top. Through these holes light wire is strung from side to side and end to end, dividing the box into squares. The tray is then filled up to the wires with sand, and moistened thoroughly. In place of holes and wires, tacks may be driven in the upper edge of boards, and fine cord stretched across and lengthwise from these, the tray being previously filled level with sand.

The ears to be tested should be arranged in rows on the floor, corresponding to rows of squares in the box, where they will be undisturbed until tested. Remove five kernels from the different parts of ear No. 1, and place them in the first square in the upper left-hand corner, designating this as square No. 1, row 1. Do the same with ear No. 2, placing the kernels in a respective square of the box, and so on with the whole. Kernels should be placed on the sand with the germ side up, and with the tip towards you, so that when the cover is lifted off, the condition as to germination can be seen at a glance. Cover with a thick piece of moistened cloth or old carpet, and keep at a temperature of 65 to 70 degrees F. After five days, the tester should be examined, and every ear that does not show vigorous root and stem sprouts should be discarded.

Automobile Crimes and Convictions.

While Mr. Stock's bill, aimed to secure stricter regulation of automobile traffic, and to increase the penalties for infraction of the law, failed to pass the Ontario Legislature, nevertheless some progress in Legislative opinion has been registered. In the discussion which took place when the bill came up for its second reading, some plain things were said by members on both sides of the House, and the general feeling seemed to be that, unless some auto drivers mend their manners, the Legislature next year will pass a law which will sharply help them to do so. Premier Whitney is reported as having declared that drastic legislation against reckless driving was necessary, and that chauffeurs must understand that their right to the road is secondary to that of pedestrians or drivers of horses. Hon. Mr. McKay said that drivers seemed to think that, with the toot of their horns, they were heralding the advent of a king. Several members plainly charged a large percentage of motorists with deliberately violating the law every time they went out. Mr. McElroy, of Carleton, mentioned the case of a woman in his county who had been bedridden for five years, and would never be able to get out again, because of one scoundrel's conduct.

Provincial Secretary Hanna, in reply to a question by Mr. Stock, gave the number of convictions under the Motor Vehicles Act during 1909, with the names of the offenders and of the convicting magistrates, and the amount of fines and costs imposed in each case. He was also to have given the number of imprisonments, but, though magistrates had the option of imposing fine or imprisonment, or both, there was not one such case to report.

The number of fines imposed, 313, seems very large, especially when, as is well known, only a small percentage of those guilty are even arrested. By the way, a very large proportion of the persons fined were Toronto people. But the amount paid in fines is pitifully small. The largest fine imposed was but \$40, the smallest \$1.00, with an average of \$5.00 for the lot, with expenses extra in some cases. Automobilists can well afford to smile at the idea of such fines proving a deterrent to rich law-breakers.

Gold Mines in Our Orchards.

A despatch last week from Beamsville, in the center of the Niagara District fruit belt, reported that a land boom was on in the vicinity of the Horticultural Experiment Station at Jordan Harbor, as high as \$1,000 an acre being paid for peach land which seven years ago would scarcely have brought over \$200. Of course, this is a genuine peach district, but right in this very section is at least one man who, having grown both peaches and apples extensively and successfully, declares that, with the same attention to each kind of fruit, there is as much money in apples as peaches, even in that specially-favored locality. These two facts should open some people's eyes. Apples can be grown over a large area of Canada almost as well as in the peach belt of the Niagara District, if not better. Indeed, the keeping quality is rather superior in the less southerly latitudes. If land, therefore, is selling at \$500 to \$1,000 an acre in the Niagara District, what are good apple orchards worth in other sections, or, rather, what can they be made to realize? Last year's returns from "The Farmer's Advocate" demonstration orchard at Lambeth indicated a clear profit equal to 13 1-3 per cent. interest on a hypothetical valuation of \$1,000 an acre. It was estimated last winter at over 14 per cent., but failure to realize the full estimated value on the No. 3

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

PUBLISHED WEEKLY BY
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JOHN WELD, MANAGER

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,
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It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
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apples then on hand, owing to dull market during the winter, accounts for the slight modification. Make allowance for an extra favorable season, but take into account the fact that high wages were paid to men inexperienced in orchard work, that the spraying and other work could be improved upon by experienced men, and that many extra expenses were entailed incident to long-distance management, and astonishment must be expressed at the showing made. Yet these results have been duplicated and even surpassed by others. It is just a case of good culture and management. There are gold mines in our orchards. Why let them lie unworked?

Long-delayed Justice.

Ontario sheep-breeders are congratulating themselves that Mr. Bowyer's bill to amend the dog-tax and sheep-protection act has become law. It passed the third reading without opposition, though a stiff fight against it had been put up in committee. The amount of tax to be paid by the owner of one dog remains the same as before, \$1.00, but for each additional dog owned, possessed or harbored by him, \$2.00 yearly has to be paid. The fee for bitches is increased from \$2.00 to \$3.00, and, if more than one is kept, \$5.00 must be paid for each one additional. A spayed bitch is to be taxed at the same rate as a dog, upon producing proof in writing from a veterinary surgeon that it has been spayed. But much more important changes in the existing Act were made by simply repealing certain clauses. Formerly, upon the petition of 25 ratepayers, any municipal council might declare the law inoperative, and even where dog taxes were levied it was permissible to apply the money received from this source to other purposes than first paying sheep-owners for losses by dogs. These qualifying clauses of the old Act are by the new one repealed, and all municipal councils are in future obliged to collect dog taxes, and payment for sheep killed by dogs is to be a first charge on such funds.

In fair play to sheep-owners, such amendments should have been made long ago.

Forty Dollars' Profit Per Acre from Hill-sides.

Many hundred thousand acres of clay hillsides in Canada are worked for a return which, after deducting value of labor and manure, hardly leaves interest and taxes on the land. Most of these hillsides, where not springy, and not too steep for haymaking, could be easily made to yield \$10 clear profit per annum; that is, where there is not an excessive area on a farm.

Such land is ideal for growing alfalfa. Once a good catch is secured, it may usually be counted on, with proper management, to remain for ten to twenty years or longer on these hard-clay slopes, though not on the knoll-tops or loamy places; on these it is liable, in a few years, to be winter-killed, or crowded out by grass. But about nine times out of ten a clay hillside, if seeded under favorable conditions as to tilth and freedom from grass or weeds, will be good for, say, 15 years. The harder the clay is, the better, but, remember, you want good surface, as well as subsoil drainage.

Now, such a stand will produce, as a rule, three cuttings a year, aggregating not less than five tons of cured hay per annum. That hay is the choicest made upon Canadian farms. Horses will often leave oats for it. Cows milk on it as on no other feed, especially when added to a ration of silage. Sheep, pigs and poultry relish and thrive upon it. Here is the chemist's explanation of its virtue:

| | Digest- ible pro- tein. | Digest- ible carbo- hydrates. | Digest- ible ether extract. |
|-------------------|----------------------------------|--|--------------------------------------|
| | p. c. | p. c. | p. c. |
| Wheat bran | 12.2 | 39.2 | 2.7 |
| Alfalfa hay | 11.0 | 39.6 | 1.2 |

This shows that alfalfa hay contains nine-tenths as much protein as bran, and practically as much of the elements that produce heat, fat and energy. Make allowance for the greater percentage of crude fibre it contains, and for the fact that one may not always expect to cure it in first-class condition. Say it is worth three-quarters as much per ton as wheat bran for feeding along with corn silage and other carbonaceous roughage. That would be \$15 a ton. At that rate, five tons per acre would be worth \$75. Twenty dollars would easily pay for the harvesting of the crop. Five dollars would more than pay rent and taxes, and five to ten dollars set aside for several years would soon recoup the original cost of seeding down, as well as the risk of failure in securing a catch. That leaves forty to forty-five dollars clear profit per annum.

Now, this is no fairy tale. It has been and can be done. But, of course, a good deal depends upon how one uses the hay. An animal fed on alfalfa alone will not likely return fifteen dollars per ton for that feed. But most farm rations are deficient in protein. Many feeders buy bran and other proteid concentrates to supply the lack. It is good economy to do so, but better economy to grow one's own protein in the form of alfalfa and clover. The stockman or dairyman who will grow ten to twenty acres of alfalfa a year, and feed the hay judiciously in moderate quantities to good stock, along with corn silage or fodder, can make it worth fifteen dollars a ton as a substitute for bran. If he does not, it will be the fault of the curing, the feeding, or the animals. Alfalfa is the greatest bonanza we have in field husbandry. The acreage should be increased tenfold.

The standing field-crop competition is a capital idea. Almost any farmer with a good fanning mill can prepare a passable exhibition sample of threshed grain, but the standing-crop competition lays stress on the essential features of good farming and grain-growing. This is the sphere in which emulation should be stimulated. Then, by encouraging the exhibition of sheaves and seed grain from the winning fields at the leading fairs, the scheme is carried through to its logical conclusion. Go in for the field-crop competition if your agricultural society is holding one. If it is not, persuade it to provide for one.

What Ails the Canadian Hen?

Nothing, except that she is not numerous enough. The trouble is with her owners, and the middlemen who handle her products. We plume ourselves on being a great agricultural country, and yet Canada had to fall back on Russia for eggs this season, just as New York City did on Austria and Germany. Last year Canada imported 583,270 dozen eggs more than she exported. Think of it! Importing eggs from Russia, China, Japan, and over a million dozens from the United States, in all, 1,136,120 dozens, while we exported only 552,850. Eggs from the peasant poultry-yards of despised Russia, laid down in Canada at 22 cents per dozen, while our city and townspeople were clamoring for the "strictly fresh" home-laid article at 35 and 40 cents per dozen. And yet, on the most conservative estimate, any self-respecting hen will pay her owner \$1 clear profit for eggs alone, over the cost of feeding, every year. So far as returns per dollars' worth of feed is concerned, she is the most profitable stock the farmer produces. Prof. F. C. Elford, of the Macdonald College, figures out, from the last census data, that the profits from the Canadian hen amount to 239 per cent., as compared with 95 per cent. from milk cows, 88 per cent. apples and other fruit, and wheat 31 per cent. It is estimated that there are about 25,000,000 head of poultry altogether in Canada, or only 35 per farm, whereas there should be at least over 60,000,000 birds, which, on the basis of \$1 per hen profit for eggs alone, would yield the enormous sum of over \$60,000,000 per year in profits to the farms of the country. Not bad for "Biddy"! There is no manufacturing business in the country which in magnitude approaches the egg and poultry trade. The demand for eggs is immense, and it is increasing, and will increase still faster, because of the multitude of ways in which they are now used, and because of the advancing cost of other foods.

That Canada should be an egg-importing country, when she ought to be exporting millions of dozens, is deplorable. Enough eggs are wasted every year through bad methods in Canada to take the place of all we have to import. Two remedies for this condition of things are in sight: First, keep more good hens on the farm, and give them better care; second, stop the frightful wastes that prevail under the present system of marketing eggs. The statement has been frequently made that what is wasted on many Canadian farms would keep in comfort the larger families that live on many farms like those of Denmark, France, Sweden and Germany, and we believe it is not far from the truth, taking the egg business as a sample. All farms and all districts are not alike, for many are managing their egg business well, but they suffer through having to take lower prices, which are scaled down to make up the losses from the bad and indifferent. On too many farms eggs are not gathered regularly every day, they are not kept clean, they are wet, roosters are allowed to run with the flock the whole year round; eggs are kept too long exposed, sometimes to excessive heat or cold; they are sold to itinerant peddlers, or traded at the corner grocery; they are carelessly handled, and, as stated by John A. Gunn, of Gunns Limited, Toronto, and Gunn-Langlois, of Montreal (two of the largest and most reliable concerns in the packing-house and produce business in Canada), competition is so keen, especially in Ontario, that buyers are afraid to reject inferior or bad eggs for fear of losing customers, so everything goes. There are Canadian firms that bury enough bad eggs every year to buy the best farm in the counties where they are located. A careful estimate, made for the United States Department of Agriculture, shows that "dirties," "mouldy and bad flavors," "breakages," "chick development," "held eggs," and "rotten," total up 17 per cent. of a loss. In Canada, Mr. Gunn says about half (8 per cent.) of this is an absolute loss, and there are also additional losses through the cost of buying and carriage of all this trash. Figured at 18 cents per dozen, and allowing 5 cents per dozen off the remaining 9 per cent., the total loss amounts to the enormous sum of \$1,850,000 per year, which could and ought to be saved to the farmers of Canada! The Gunns have been in the business 40 years, and

should know what they are talking about, and, being farmers as well, they know both ends of the deal.

In addition to educational efforts through the press and otherwise, Mr. Gunn proposes two lines of reform, one legislation making it a punishable offence to sell or offer for sale bad or rotten eggs; and, second, a system of co-operative circles or associations, similar to those in vogue in Denmark. Danish eggs command a far higher price in the best markets of Great Britain than Canadian. The Danes now produce more and better eggs than formerly, and realize greater profits, due to honest and businesslike methods of collection, and a concentrated and universal system of co-operation, the rules of which are rigidly enforced, down to the stamping of the number of the producer and his circle number on the large end of every egg, receiving cash on delivery to the regular paid collectors, and a subsequent division of ultimate profits which the directors may be able to declare after the disposal of the eggs in the best available markets. What intelligence has done for Denmark, it can do for Canada. The principles upon which the Danish egg business is conducted are simple and sound, and can, in the main, be adapted to fit Canadian conditions.

If I Were a Farmer.

By Rev. A. C. Crews.

If I were a farmer, I would consider myself the most fortunate man in the world, in having the privilege of cultivating a part of God's earth, and helping to provide for the needs of others. Knowing city life as I do, its dangers and disadvantages, I would not hanker after it, but would rejoice in the freedom and independence which the dweller in the country enjoys. Away from the dust and noise and smoke of the town, I would have glorious times communing with nature, and co-operating with nature in bringing about results that are really worth while.

If I were a farmer, I would give the closest attention to making my home as comfortable as possible. The house would be built on high ground, just far enough away from the road to be free from dust, and surrounded by beautiful shade trees, arranged in a circle about the house, and not in straight lines. Between the house and the trees I would have a well-kept lawn and a few flower-beds. Of course, there is no money in flowers, shrubbery, trees and well-clipped grass, but these things add to the happiness of those who live on the farm, and help to make the young people contented with their lot. After all, it does not take very much time to look after matters of this kind. A few minutes each evening will work wonders.

What about the inside of the farmhouse? It may seem impracticable, but I would go in for having all the conveniences that can be found in a modern city home, such as hot-water heating, acetylene gas, hot and cold water in the kitchen, telephone, etc. These things cost a little, of course, but it is better to have them and enjoy them than it is to salt money away in the bank.

If at all possible, I would arrange to have a daily paper left at the door every evening, and after the toil of the day I would find out what was going on in the world. I would subscribe for one or two of the best magazines, such as the young people of the family would enjoy, and also have a well-selected library. Of course, I would subscribe for "The Farmer's Advocate," and read every word of it. If I discovered in my daily work anything of value, I would give other farmers the advantage of it by writing to "The Farmer's Advocate," and would help myself out of many difficulties by using the Question Department of this excellent journal. I may say, in passing, that while about 100 papers pass through my hands every week at the present time, I read few of them more carefully than "The Farmer's Advocate." It is a paper of which the farmers of this country should feel proud.

I would provide a piano or organ for the living-room of the home, and some interesting games, such as crokinole, etc., which could be enjoyed by young and old during the long winter evenings. If I could possibly afford it, my sons should be sent to the agricultural college, and the daughters to some good school. I would take an interest in having the very best sort of public school in the neighborhood of my farm, and would advocate securing a first-class teacher and paying him a good salary. I would put myself in direct opposition to the cheese-paring policy of some rural trustees, who seem to think that their principal duty is to keep down expenses.

I would advocate the establishment of a lending library in the most convenient place, which would contain the latest and best books on agriculture and horticulture, together with a good assortment of general literature, including some of the best works of fiction. This could be established and maintained by co-operative effort, without appealing to Mr. Carnegie for assistance.

During the fall and winter my family would do their share toward cultivating a social life that would add to the pleasure of living. Some jolly evenings would be arranged in each other's homes, and a big sleigh, with plenty of straw in the bottom, would frequently take a crowd of young folks—old folks, too, for that matter—to a teaming, concert, or other entertainment. There can be no doubt about it, many girls and boys become dissatisfied with farm life because, in too many cases, there is "nothing doing" during the long winters. In reality, there is no class of people who can have such a splendid time as farmers. A little originality and determination will soon overcome whatever difficulties there may be in the way. A revival of the old-fashioned spelling-match and singing school would not be a bad idea, by any means. There is one neighborhood in the County of Halton where there are an unusual number of good singers, and the church choir compares favorably with any of the city organizations. What is the explanation? Simply this: A few years ago a musical enthusiast conducted a singing-school, which was attended, season after season, by nearly all the young people. The winter evenings were passed pleasantly, and a knowledge of a refining art imparted that will never be forgotten.

Of one thing I am absolutely sure, I would have a carriage with two or three seats, that would take the whole family to church and to town. What a shame it is that in so many barns there will be found nothing in the way of a driving rig but a light buggy, or perhaps two, that will seat only two persons. Of course, this vehicle, with its close-communion accommodation, is very convenient and appropriate for the young man of the family for certain very interesting trips that he will probably want to make quite frequently; but, as a means of accommodation for the family it is of little value. How often it happens, on Sunday, that father and mother go off, together, to the church, two or three miles away, in the top buggy, leaving the young folks to get there the best way they can. As a result, in many localities, the church services are but slimly attended. Give me the old-fashioned carriage that will hold six or eight people. I am afraid, however, that there would be difficulty in obtaining one, as they seem to have passed out of existence almost completely. Look into the shed of a country church on a summer day, and it will be remarkable if, out of twenty conveyances, you find more than one or two carriages with more than one seat.

If I were a farmer, I would not consider myself as the sole breadwinner, and entitled to keep the purse, but would recognize the fact that my wife and grown-up children were partners in carrying on the concern. There would be either a common purse, or else each one would have a regular monthly or weekly allowance. What a humiliation it is for a hard-working woman to be forced to go and ask her husband for every dollar she wants, and make full explanations as to how it is to be expended!

The younger boys and girls of the home should be encouraged by giving them a special interest in the chickens, the calves or the pigs. Let a boy have a heifer, for instance, as his very own; let him take care of her, with the understanding that, when disposed of, her value shall be placed in his hands. In a similar way, some of the hens could be given to the girls, who might be permitted to sell the eggs to meet their own personal expenses.

If something of this kind were done, young folks would love the farm more, and be more ready to remain upon it. Boys and girls who never have a cent of their own to spend often get restive and dissatisfied.

I would make my will while in perfect health, and leave my affairs so that they could be settled up, in case of death, without confusion or disagreement. I would not be guilty of the injustice of giving a hundred-acre farm to each of my sons, and leaving two or three hundred dollars apiece to my daughters, but would give the girls their fair share of the estate.

If I were a farmer, I would make a study of the business, and work the land on scientific principles for all it was worth. I would give special attention to stock, and have around me the finest that could be secured. It seems to me that it does not cost any more to keep a good animal than a poor one. The first price may, perhaps, be greater, but after the horse or cow is in the stall, the one with a pedigree does not eat any more than the "scrub." Consequently, I would go in for the very best of everything. I would also buy the best machinery, and would not allow it to remain outdoors to be ruined by the weather, but would see that it was safely housed when not in use.

As far as time would permit, I would take part in the public life of the community, and if my neighbors saw fit to elect me to the township or the county council, would not decline the nomination. I would particularly interest myself in securing good roads throughout my township.

Almost everybody who lives and works in the city in these times, arranges to take a holiday in the country during the summer, and a very pleasant and healthful habit it is. The farmer, of course, cannot think of a summer vacation, for this is his time of toil, but there is little to prevent him taking a winter holiday. If I were a farmer, I would arrange to spend a week or two in the city in the month of January or February, and, of course, would take my wife along. If I lived within two or three hundred miles of Toronto, I would plan to visit that great city at the time when the wonderful concerts of the Mendelssohn Choir were on, or the annual exhibitions of the art society, and so get a taste of the delights of the best music and art.

Much of what I have suggested may be entirely visionary, but I would like nothing better than to have a good farm somewhere in the Province of Ontario, where I could work out some of these ideas. If such an opportunity were mine, I would not envy any man who lives.

HORSES.

Fitting a Stallion.

Please give a daily ration for fitting up a stallion of 1,400 pounds. Is there any certain ration that will make him more sure? H. S.

There is no particular food that will have the effect you mention. All food given should be of first-class quality. You do not mention the class to which your stallion belongs. I suppose he is a coach or large carriage horse, but, as regards ration, this makes little difference. For his morning meal, give 7 pounds good timothy hay, and 7 pounds whole oats. Water before feeding, and again about an hour after he has finished eating. In an hour longer, groom him well, and



Slipton King.

Shire stallion; bay; foaled 1907. Junior champion, London Shire Show, 1910. Sire Blythwood Kingmaker.

then give him five or six miles gentle exercise, either in harness or on the line. Rub him down well after you fetch him back to the stable, and put him in his stall (we assume you have a box stall of reasonable size for him). Give him water again before his midday meal, which should consist of about 4 pounds hay, 7 pounds rolled oats, and 2 or 3 pounds raw roots, either carrots, turnips or mangels. Give him water again about an hour after his meal. At noon, his evening meal should be prepared. It should consist of about 7 pounds cut hay, 6 pounds rolled oats, and a teacupful of linseed meal. This should be mixed in a water-tight box or vessel of some kind, over which boiling water should be poured, and the mixture then covered tightly. This allows the mixture to become well steamed, practically cooked, and is very palatable, and gives good results. About the middle of the afternoon he should again be taken out to exercise, and given five or six miles, as in the forenoon. As he becomes accustomed to exercise, the distance may be gradually increased. It will be good practice to rub him down again after this exercise, before putting him into his stall. In the evening he should be again watered, before giving him the meal that has been prepared. In about an hour after he has finished his evening meal, he should again be given water, and fitted up for the night.

As to the amount of bulky food that should be given a horse, I may say this must to some extent be regulated according to individuality. I have given about the amount the ordinary horse of 1,400 pounds should be fed. If you find that it is more than he will eat with apparent relish, you should reduce the amount; but I do not think it would be wise to increase the amount, even though he would eat more, as it would probably give him "too much middle."

The potency of a sire probably depends as much upon his general care as upon the food he eats. One of the chief reasons why many sires are not as potent as they should be is the fact that they get practically no exercise, except during the stud season, hence the necessity of daily exercise, as recommended. In fact, a horse makes a better sire if he gets regular exercise at all times.

"WHIP."

Horse Prospects and Stallion Values.

Editor "The Farmer's Advocate":

Whilst the horse market to-day demands four distinct classes of horses, heavy-draft, carriage, saddle, and roadsters, the draft horse offers to the farmers of Canada the best chance, from a financial standpoint. One advantage he possesses over the breeder of the lighter classes is that he has fewer sacrifices to make on account of blemishes and imperfections, very little allowance having to be made for a small blemish on him. But if a road or carriage horse has a deformity, however slight, as a splint, or throws out a small curb or spavin, it invariably detracts greatly from his selling value. The draft horse is ready at three years of age to earn his own living. He is more tractable, and more easily trained. He can be raised for \$100, or less, and will sell at from \$200 to \$300, according to soundness, quality and weight.

Few departments of agricultural industry of this great country are more important than that of draft-horse breeding, and prices never ruled higher than they do to-day. The demand for first-

class geldings and mares of suitable age, weighing 1,400 pounds and upwards, is in excess of the supply; in fact, all kinds have had a market value. Good ones have sold high, while poor ones have paid well enough to encourage the scrub and low-grade producer to continue his work.

There is a growing consciousness that a great many of our horses are not what they should be, and every breeder should feel it his duty to assist in improvement. We should not breed in a way to add to the unmarketable product. If, through penuriousness or ignorance, we still insist upon perpetuating the low-grade animals, by mating to poor sires, or, in the case of men who have road and draft mares, breeding to the same horse, and that often a horse of neither class, we must expect to be in possession of plenty of nondescripts.

Perhaps the present high-grade draft horse is the farmer's ideal horse. Many doubtless consider him the best horse for general-purpose in the world, while others might prefer a lighter and swifter-moving horse for farm work, and for long-distance travelling. I am inclined to think that the ideal general-purpose horse, or horse suited for all kinds of work, is almost impossible to raise or buy. Yet, we have very many useful horses that can only be classed as general-purpose, unless someone is uncharitable enough to say that such are only scrubs and nondescripts, yet these horses will often, in the ordinary farm operations, especially plowing, harrowing, and such work, on soft ground, tire out the heavier-footed draft horse.

There is nothing in the character of the present horse market that seems suggestive of radical changes in the future. We are no more going to return to the horses of twenty-five years ago than we are to other styles and methods of those days. The Canadian people do not progress in that way. The coming trotter must fly; above 2.20 cuts no figure now. Not many will raise phenomenal trotters. Good roadsters, weighing 1,100 pounds and upwards, will be good-paying products for the next few years, at least. We shall always want plenty of good draft horses, and the best-paying type will never be lighter or poorer than the market standard of to-day.

In general, the type of draft horses demanded to-day are, of weight, 1,500 pounds and upwards. They must have good feet, sloping pasterns; clean, flat bone, without any tendency to beefiness about the legs; a good strong, short back, with a well-sprung rib; and the more ambition and action and quality he possesses, the more valuable he will be.

The cry that the horse will soon be put out of business has been raised so often that it is ancient history, almost as old as the horse. In the advent of the railway, the cry was raised that the day of the horse would soon be over. Instead of the railway supplanting the horse, it has increased the sphere of his usefulness. Next came the tram or electric cars, then the cry was there would be no market for horses in cities; it was well known the horse cars used up a lot of horses. Now we have the prototype of those theorists saying to breeders that their realm has been invaded, and the horse must make way for the automobile. Yet, his usefulness and money value goes merrily on and up. He continues to improve in type, to grow strong and fat, and increase in numbers.

There is a growing demand for Canadian-bred draft stallions and mares, and there need be little fear of its stopping as long as Canadians endeavor to conduct their business on a fair and legitimate

basis. That this course has not always been pursued, we know full well. There are few parts of Canada that have not been visited by the "stallion syndicate promoter," and many syndicates have suffered thereby, although most of these "promoters" sell their stock as "imported." Many who buy do not know whether such is the case or not, or whether the papers and pedigrees produced would stand as correct if examined at the National Records Office at Ottawa. A number of horses sold in the Maritime Provinces at prices ranging from \$1,200 to \$2,200, proved utterly useless as stock-getters. That they were imported, there is no doubt; bought for a song on account of some imperfection, in France or the British Isles, they are shipped here, and sold at handsome profits.

An excellent article from the pen of Dr. D. C. Smead, in the Tribune Farmer, deals with this question in a way we like. He says, in part:

"Where do they get these horses they sell? They buy some of them of breeders of renown, who sell the horses to them for nominal sums, by reason of their being faulty in some way. In breeding horses of the highest type, there will always be an occasional colt foaled that is defective in some way. The breeder himself does not like to sell him direct to a customer, who might later on 'put up a kick,' and injure the breeder's reputation. He, therefore, is willing to sell to a promoter, who can jockey up and fatten up, or even dose up, an inferior colt or horse so that he will look like a good horse. The price paid is usually from \$200 to \$300 to the breeder, occasionally \$500. This is the limit. Then the promoter starts out prospecting. He locates in some business center in a rural district, where he has learned there is a desire among the farmers to secure a draft stallion. He gets introduced to some men of influence in this district, and then he plies his art. He uses lots of palaver on this man by saying he has been directed to come to him as a man of note in this county, and a man whose word carries weight with it. He desires to engage this man for a compensation to assist him in the good work he is doing by installing a first-class stock horse in that section of the country. A liberal fee per diem, with a share of stock thrown in, induces this 'influential man' to introduce him to farmers, and he arouses their interest by telling him he has a stallion of the finest breeding ever known in France, Belgium, England or Scotland. He has purchased him for about half his real value, and could barely get out by selling him to the company for \$2,500 or \$3,000. He was a dealer in horses, and yearly bought several thousand horses for city use, and he only sold this stallion at so low a price by reason of his expecting in a few years to come to that section to find horses to buy of this horse's get, for which he would pay from \$500 to \$1,000 a pair. He would be glad to buy four-year-old half-blood geldings at \$300 a head if he could only find them in this section, but he of necessity had to go to some other locality for them, and get poor stock at that. Thus it was he was offering this remarkable fine-bred stallion for so low a price. If the farmers here would not readily take hold of this matter, he should take his horse further West, and there sell him quickly for \$5,000."

We do not think it is at all necessary to pay fabulous prices. There are firms in Canada and the United States selling stallions, better far than some of the ones referred to, at half the price. As Dr. Smead says, further, "Farmers can just as well go to some reliable breeder and buy as good horses of any draft breed in the world at from \$500 to \$1,000," and further adds that two or (possibly) three men are enough to form a company in owning any one stallion.

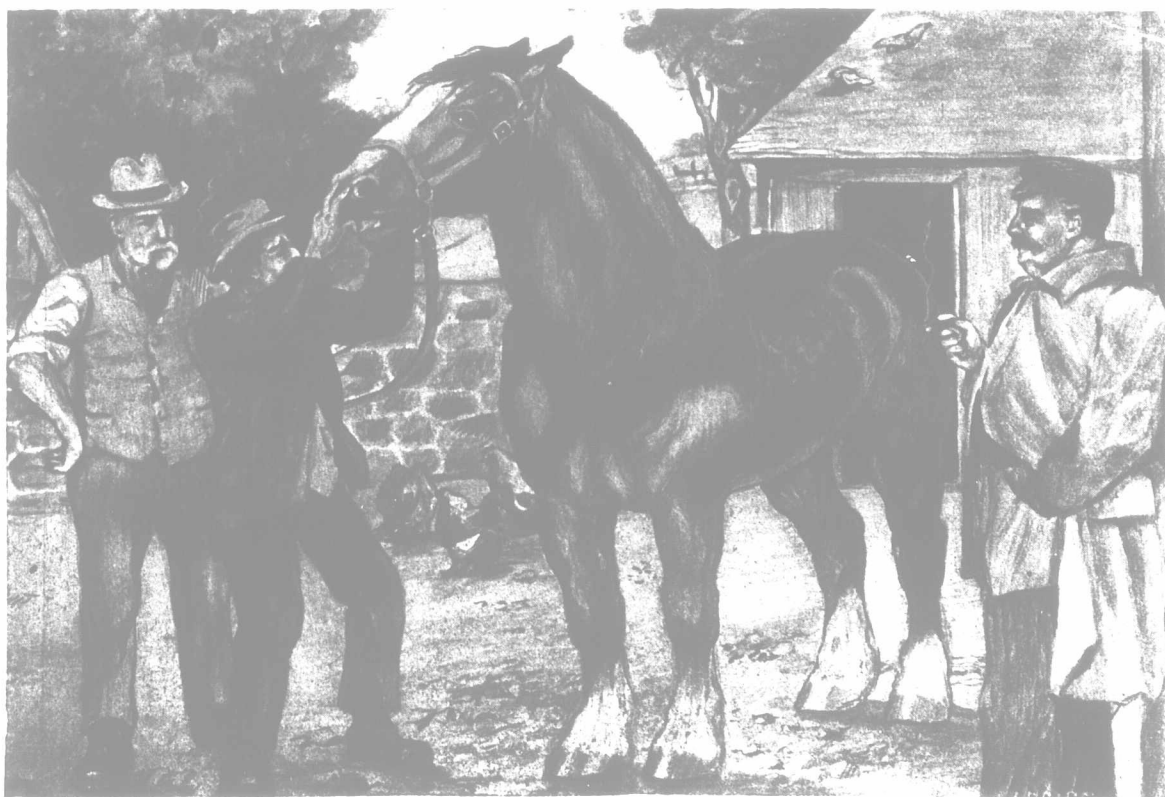
In conclusion, would say, if farmers will only keep their best mares, or, if they have no good ones, try and get them, breed them to the best draft stallion—if they do this consistently, and use ordinary care and judgment in this business, they can hardly fail to make a success of, and profit from, the breeding of draft horses.

A. HECTOR CUTTEN.

Colchester Co., N. S.

Transmissible Diseases Among Horses.

One of the interesting lectures before a class of farmers recently at University Farm, in Minnesota, was by Dr. Lipp, of the Veterinary Division, on the subject of Transmissible Diseases Among Horses. He divided spavin and kindred bony diseases into two classes. In the first class he placed those that result from injury, and in the second those that result from faulty conformation. A sound horse, of proper conformation, that receives a kick, and then develops a bony disease, would clearly belong to the first class. There would be little danger of such disease being transmitted to offspring. On the other hand, if by reason of faulty conformation, a horse develops a spavin, when employed at ordinary work, the offspring from such horse would not inherit spavin, but would be predisposed to the disease on account of an inherited faulty conformation. He then applied the same reasoning to various other diseases and showed that the disease itself is not



The Hoss Buyers.

(Drawing by Jas. E. Price.)

often transmitted, but the weakness is transmitted, which frequently requires but a short time to develop into the disease under favoring conditions. To sum up, the doctor cautioned farmers against using not only unsound animals for breeding stock, but advised most strongly against using animals of faulty conformation.

In reply to a question Dr. Lipp discussed navel disease at some length. This disease is caused by the entrance of germs into the colt's body through the stump of the navel cord. The germs causing navel disease live in the stable, on the walls, in manure and filth on the floor, and sometimes on the skin of the dam herself. He advised perfect sanitary conditions about the barn and stalls as the best preventive. He would thoroughly clean the stall in which the mare is to foal, and disinfect it with whitewash, to which crude carbolic acid was added. He would cover the floor with clean straw, and have the mare thoroughly washed about the roots of the tail as late as possible before foaling, so that her parts may be free from germs, and the possibility of germs entering the navel through contact with the mare would be reduced to the minimum. Then he would bandage the colt's body with antiseptically clean swaths, using also antiseptic cotton as a pad on the navel, on which a five-per-cent. solution of carbolic acid—one ounce of acid to nineteen of water—is used. The bandage is also considered a support to the young animal's body, preventing undue strain on the abdomen.

We might add that the veterinary editor of "The Farmer's Advocate" does not approve of the bandaging, the application of antiseptics being all that is needed.

What to Start Breeding With.

Editor "The Farmer's Advocate":

J. A. Fraser certainly gave a grand sketch of the Standard-bred horse in your issue of March 10th, and I would like to discuss with our worthy editor and some of my fellow readers one statement he has made. That is, "If a farmer wants to raise horses of the heavy-draft purpose, he will only be wasting time by trying to produce what he wants by crossing his country-bred mares with draft stallions." This looks all right for the farmer who has lots of money, and can buy just what he wants. If I were rich, I would buy pure-bred Clydesdale mares, and raise the best Clydesdale colts I could. But, you remember the old saying: Some of us, at least, have to creep before we walk. I have a small roadster mare that can travel ten miles an hour, that I bought two years ago for \$114. She raised one roadster colt that was a freak in legs. I then bred her to an imported Clydesdale. That winter—that is, a year ago—while at the Farmers' Institute meeting, I heard a young man make a lengthy speech on raising horses. He went into all the details, such as staying up nights with the mare, and assisting the colt to get the teat, and used the same statement as Mr. Fraser does. I asked, "Surely you do not mean for me to sell my little mare?" He said, "Yes, sell her, and buy a Clydesdale, if you like the Clydesdales." Well, my little mare foaled in June, out in the field, some time in the forenoon, and brought her colt to the barn at noon for a drink. No sitting up nights or assisting the colt to the teat with her. Now, this colt has the action, spunk, form and weight very little short of some pure-breds, and would probably sell for as much to-day as I paid for her mother. Now, why is this colt not a splendid foundation for some heavy horses? If I keep breeding her and her offspring to the best Clyde I can, can I not get as much pleasure and profit out of it as the rich man, with his imported stock? How long before I will be raising horses that will be worth as much as his? I believe the average writers, like Mr. Fraser, are a little too sweeping for some of us farmers; that is, in suggesting such radical changes as selling the stock we are used to, and buying expensive kinds. I believe we make our mistake, not at the foot of the ladder, but, after we get up two or three rungs, we jump off and start over again. But, you say, none of the herd-books recognize anything but stock raised off stock that has been already registered. Let me tell you a little story: A number of years ago, an old farmer, Mr. Field, living down in an Eastern State, placed his small boy, Marshall, as an apprentice to a good old honest village storekeeper. After the boy had been there a short time, his father went to the store one day for groceries. While making purchases, he asked the storekeeper how the boy was getting along. The storekeeper, not wishing to offend in any way, gave the old man an apple, and said he had better take the boy home and teach him to milk cows, as he would never make a storekeeper. It is hardly necessary for me to add that this boy was no other than the great Marshall Field, merchant king, railroad director, and one of the richest men in the world.

Now, my kind friends, when you put a good article on the market, you can always sell for a good price; it matters not what it is, from a castle to a mouse-trap. And when you manage to sell a registered animal for more than it is worth, you have found a sucker, and the ways of the

sucker are like the ways of the transgressor. Now, I am not trying to offend anyone; neither am I referring to the rich farmer, but simply to the average farmer, who, like myself, has to work for his bread and butter. My motto is, "Improve." Improve everything from the farm to the hen. Don't sit down and pay for other people's improvements, or you will lose all the pleasure, honor and profit that is in it.
Oxford Co., Ont. THE YANKEE BADGER.

Treatment of Mares at Foaling.—I.

There being such diversity in mares as to form, disposition, class, breeding, etc., each requires special consideration to enable a manager to apply the most successful treatment. For instance, mares of lively disposition, if permitted, will take sufficient exercise to maintain themselves in healthy condition, while phlegmatic ones, if turned out, will not exercise themselves, consequently such animals require forced exercise in frequent, well-regulated quantities, once (or preferably twice) a day. Therefore, general principles of treatment are all that can be advised, special requirements being left to the manager to consider. The lively-dispositioned animal may be turned into a good-sized paddock or field where they will exercise themselves sufficiently to keep the various organs of the body in an active condition, and, as many organs are compelled to perform more work in the mare when in foal than when not in foal, more particularly the digestive system, which is required to assimilate sufficient food to maintain the mare and nourish the foetus, the circulatory system must force an extra quantity of blood through the additional blood vessels, namely, those of the foetus. Weakness in this system is the cause of swelling of the legs and along the belly sometimes occurring in pregnant mares, more frequently in advanced pregnancy.

The respiratory organs must partly purify the extra amount of blood. The other organs are also taxed, but not to the same extent, and, as exercise is necessary to induce and maintain activity in any of them, it must be insisted upon. Therefore, the phlegmatic (dull) animal should be forced to take exercise, which may be by gentle work, given frequently, at least once a day, preferably twice; and such work, carefully given, will not injure a lively animal. Along with the exercise, the animal should have a variety of palatable, nutritious feeds, such as early-cut, well-cured, mixed clover-and-timothy hay, in sufficient but not over-abundant quantities, fed two or three times a day in such amounts as will be consumed in one to two hours at each meal, and some oat straw permitted between meals, if hay is fed only twice a day. Along with this, give from one-half to one gallon of oats two or three times a day (the amount depending upon whether she is working or not), mixed with the same quantity of wheat bran. The oats may be boiled two or three times a week for the night feed, with half a pound or so of ground linseed added when mixing the bran with the oats after boiling; a reasonable quantity, from 4 to 8 pounds, of roots once a day, at night, when the mash is not fed, giving access to good water and salt as desired, the quantities of grain and roots to be governed by the size, weight and character of the animal, and the work performed.

During the period of gestation, care should be

taken not to make sudden changes in food. If change must be made, bring it about gradually. Also, prevent undue excitement, such as fright from some unfamiliar object, such as a railway train, an automobile, a dead animal, or the sight or smell of blood, as excitable mares have aborted from such causes; and, if the mare is worked between shafts, they should be wide enough to prevent pressure upon the abdomen. And, while many mares are the better for regular, careful work, if not worked regularly they are better not worked at all.

As the period of gestation advances, and delivery is about to take place, which period varies, but in the majority of cases is about 335 days after service, and is generally marked by development of the mammary glands, a filling of teats, and frequently an accumulation of waxy substance adhering to the teats, a dropping or sinking of the tissues of the croup, and tumefying of the tissues of the vulva, at this time, the mare should be carefully watched, so as to render assistance, if necessary. Have the animal placed in a clean, comfortable box stall, well-aired, lighted and bedded.
J. STANDISH, V. S.
Colchester Co., N. S.

Oak Bay, a suburb of Victoria, B. C., having been brought into disrepute by race-track gamblers from California, has forbidden racing within its limits.

LIVE STOCK.

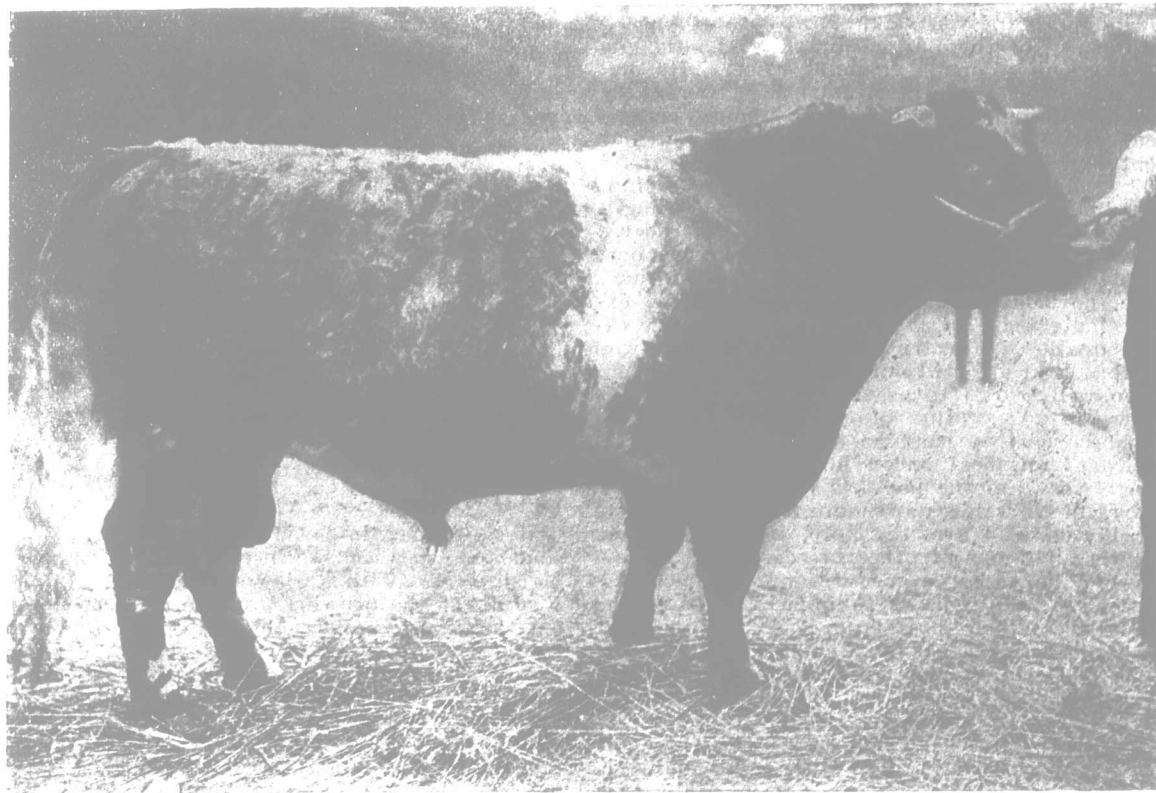
Ewes Disowning Lambs.

"In handling a flock of sheep," says Peter Norris, of Dufferin Co., Ont., to "The Farmer's Advocate," "a special room should be provided in which lambing ewes may be put. If they are allowed to run with the rest of the flock, sometimes the lambs wander away, and, after rubbing against other sheep, their mothers disown them."

"A sure remedy for ewes refusing to suckle their own lambs, or other lambs, for that matter, is to place them in a stanchion made of two eight- or ten-inch boards, so placed that the ewe's head is held, and that she cannot turn to smell the lambs. In three days a ewe will be kind to the lamb or lambs. It seems, as the lamb feasts on her milk for these few days, the smell becomes satisfactory to the mother. I have also known cases in which a motherless lamb was fostered by having it wrapped in the web that surrounded the newly-born lamb."

What Ram Lambs Lose the Farmer

Sheep-dealers on the Toronto markets at the present time make a difference of 50 cents per cwt. between ram and ewe and wether lambs. Later on, say by the middle of October, there will be a difference of \$1.00 per cwt. Dealers on the Buffalo market discriminate in favor of ewe and wether lambs at the rate of \$1.50 to \$2.00 per cwt., or 1½c. to 2c. per pound. There were 160,000 sheep and lambs sold on the Toronto market last year, fully half of which would be lambs, and ninety per cent. of these were rams.—[From Toronto market report, October 3rd, 1907.]



Dairyman.

Shorthorn bull. First in class over 30 months old, Birmingham, England, 1910.

Yorkshire Swine.

By H. S. McDiarmid.

There is no class of live stock kept on the farm to-day that should receive more care in breeding and management than swine. Every thoughtful farmer knows that a very large proportion of the food consumed by hogs is highly concentrated, and therefore is costly food; and, consequently, anything that can be done to improve the economical feeding of hogs, the same will be financially bene-



An English Yorkshire Boar.

ficial. It is, therefore, a fortunate thing for the hog industry of Canada that many breeders of pure-bred swine find their business a profitable one, and also find a good home market in Canada for their breeding stock. With intelligent care in feeding, and selection of breeding stock, the future of this industry will be greater, and even more profitable than it is to-day. The breeder, however, should ever keep in mind, no matter what breed he is using, the bacon type, and to me it appears the best, other things being equal, for the Canadian farmer to breed the breed of stock that produces the best finished product. The Yorkshire is, beyond doubt, the best bacon hog in the market to-day.

The Improved Large Yorkshires, as they are known in America, or the Large White Breed, as designated in England, are one of the three principal white breeds of that country—the Large White, the Middle White, and the Small Yorkshire or Small White. The general opinion is that these breeds have come originally from the Old English hog, a large white class of animal, inhabiting Yorkshire and other counties of England from a remote period. The Small Yorkshire owes its refinement in a measure to Chinese crosses, and the Middle Yorkshire is the outcome of a cross between the Large and the Small Yorkshire breeds. The Old Yorkshire was long in the head, in body and legs, was narrow, had very large ears, and was coarse of bone. It was hardy and prolific, but slow in maturing. Their improvement commenced, it is thought, more than a century ago. The White Leicester, introduced early in the last century, and crossed on the Old Yorkshire, effected considerable improvement, and the blood of the Small Yorkshire has also had an influence in the improvement.

About sixty years ago, or probably more, Yorkshire pigs were first imported to Canada. These pigs were much the same style of pig as the Middle White Yorkshire of the present day. But, about 1880, Wm. Davies, of Toronto, began the advocacy of the Large Yorkshires as the pig the farmers of Canada should raise. He and others imported them here, but they were very coarse and large. They were coarse-boned, coarse-haired, and lacked the quality of most of our present-day Yorkshires. As a result of careful breeding and selection, and good judicious feeding, our leading breeders have succeeded in producing a hog that combines to a very satisfactory degree the desirable size, with smoothness, strong bone, without coarseness, early maturity and prolificacy. We see, nowadays, at our large exhibitions, excellent individuals of great size, length, and excellent quality. Our enterprising breeders, who have done, and are still doing, much for the breed, are too well known to need mentioning.

There is no question of the popularity of the breed, because they combine the desirable characteristics of an ideal bacon hog to a remarkable degree; they are the packer's favorite, generally. Breeders of Yorkshires are more numerous than of other breeds, and are, therefore, registering more stock than patrons of other breeds.

In our bacon-hog contests, and bacon-carass competitions, the Yorkshires invariably lead, and the quality of their meat is unexcelled.

A typical Yorkshire boar should be long and deep in body; large, but free from coarseness and wrinkles. Top line strong, and slightly arched from tail-head to top of neck; side lines straight and parallel; bottom line straight. This conformation gives a long, deep side, a full and deep heart-girth, a light even shoulder, a well-fleshed back, and a rump well carried out and full; a well-developed ham, and all parts of the animal free from flabbiness, which means cheap meat, are essential. The bone of a first-class boar should be

large, with quality, free from coarseness, and flat. His legs should be straight, and his pasterns strong and springy. His head should be free from coarseness, and should show masculinity and strong character, being broad between the eyes, ears well carried, and of good size, but not drooping; snout of medium length, and of fair size. His crest should be well developed, and his whole make-up should indicate masculinity and strong individuality.

The ideal sow should have most of the characteristics of the ideal boar, but should be free from the masculine appearance, should show strong breed character. Her bone will not be so heavy, and her side will be deeper. She, in addition to the above, should have at least twelve well-placed and well-developed teats.

From the feeder's standpoint, the Yorkshire compares favorably with other breeds. Experiments—and they are the only accurate means we have of determining—indicate that it is not so much a matter of breeds, but much more a matter of individuals of any breed, that give best results from food consumed by them; and, of course, all our principal breeds have been used in these experiments, as well as their grades and crosses.

The Yorkshires are probably not quite so good grazers as some of the fatter breeds, but, because of their strong limbs and hardy constitution, and growthiness, are probably the best pen feeders of them all.

I am a breeder of Yorkshires because I recognized in them the hog that best suits our great bacon trade in Britain, which is our best market. From the Yorkshires we get our best sides of Wiltshire bacon, and the quality of the meat is of the best, the lean and fat being evenly mixed, and of about equal proportion, and finely flavored. Then, the Yorkshire is the largest, and, indeed, the handsomest of the breeds of hogs in Canada to-day, and, to my mind, their feeding qualities are unexcelled, they being able to produce pork of



A Baker's Dozen and One to Spare.

Photographed on the farm of the President of the William Weld Co., Middlesex Co., Ontario.

No. 1 quality just as cheaply as the Berkshire, Poland-China, Essex, Hampshire, Chester White, or any of the thicker, fatter breeds can the pork of much less value as a Canadian product in the British market. Another point in the Yorkshire's favor is the size of the litters produced, and the splendid mothers the females of the breed are.

As a farmer and breeder, I would advise the farmers of Canada to breed pigs that best suit a great and growing trade; and, from present indications, I judge that the farmers of Canada see in the Yorkshire a hardy, prolific, large breed that they need to produce to suit the best demand of markets at home and abroad. We have in Canada hardly any room for the thick, fat, lard hog. A Yorkshire sire in a common-bred herd is a great advantage. He gives size, growthiness, length, and large litters. The Yorkshire is the strongest breed, and is, therefore, able to impress upon his progeny more markedly his excellent qualities, than a sire of any other breed.

Scattering Contagious Abortion.

Editor "The Farmer's Advocate":

I have long intended to write you on an evil that to me seems to need bringing before our legislators. With a view to remedying the same, I speak of the growing practice of farmers selling out their herds because they have contagious abortion. Near here, within the last two years, there have been several sales of infected herds. The result will be obvious: it will spread to healthy herds, and cause loss to many farmers. And again, a young man starting farming, without much capital, has at present to run an awful risk, for he probably has to buy his cows at sales to start on, whereas an older farmer can raise his stock, and miss the evil. And so, to a certain extent, the young man, who can ill afford the loss, has to run the greater risk.

Don't you think, Mr. Editor, that it should be made a criminal offence for a man to load his trouble onto his neighbor in this way, rather than beeing his herd or curing it?
Ontario Co., Ont. NIVAT NON NIVAS.

THE FARM.

"Alfalfa" as a Crop and Feed.—I.

Editor "The Farmer's Advocate":

Alfalfa, or lucerne (*Medicago sativa*), is a plant that has probably been used for hay longer than any other cultivated plant. It was held in high esteem by the Romans during early times, and from that time to this it has been in favor wherever the best agriculture has been practiced.

It is a hardy, perennial, leguminous plant, which produces upright stems, flowers in purple clusters, and roots which penetrate deeply into the ground. Under favorable conditions, this plant furnishes material of high nutritive value for all kinds of stock.

Alfalfa has one great advantage over other forage crops, in that it penetrates very deeply into the soil. Thus, the whole soil is in use.

Next, remember that the plant uses the whole of the growing season, and it is the only crop the farmer grows that does this. It is hardy, and the cold has little effect upon it. As soon in the spring as the sun has slightly warmed the earth, the alfalfa starts its growth. Light frosts do not affect its growth, and soon after the corn is planted the alfalfa is ready to cut. Thus, one crop is secured almost by the time the corn is ready to be cultivated. Then, in about thirty or thirty-five days, there is a second crop ready. Then, about thirty or forty days later, a third crop is ready for cutting.

Best of all, the forage which the alfalfa plant produces is the richest and most palatable that the farmer can grow. The alfalfa, when cut at the right time, is very rich in protein. This is the compound that makes the red flesh and red blood in all animals. It is also that which goes to nourish the brain, the nerve and vital process. It is also rich in the elements which enter into the composition of bone.

In Ontario, alfalfa is grown for the production of hay, green fodder, pasture, seed, green manure, silage, and other purposes.

Horsemen of the present day have the universal opinion that, for the raising of horses, there is no food that approaches the value of alfalfa, both for pasture and for hay. Some of the finest horses found on the market have been reared on alfalfa pastures, and fed a light ration of it during the winter. The essential feature is that it should be fairly mature when cut, and not mouldy or musty. When alfalfa is fed, less grain is required. Horses doing regular work should not be fed more than one pound of hay per hundred pounds of live weight per day.

To the cattleman and the dairyman, alfalfa is increasing in favor. It is one of the best flesh and milk producing foods available at the present day. Cows fed alfalfa hay as part of their ration will give milk as with no other possible combination of foods. Alfalfa is nearly as rich, pound for pound, as wheat bran, and, therefore, we get an insight as to its value as a food.

For pasturing purposes it has no equal, owing to its rapid growth, its palatability, and its milk and flesh producing constituents.



Typical Yorkshire Sow.

It is an excellent food for sheep, if not fed in too large quantities.

As a food (both as pasture and hay) for hogs it has no equal. It is exceedingly good for young, growing hogs, and for brood sows, as a pasture, and gains from fattening hogs can be

made much more economically when it is used with grain, than without it.

Among the soil-enriching crops, alfalfa takes first place, and of this I will now speak.

Alfalfa belongs to the same order of plants as clovers, and it enriches the soil the same as all clovers do, by the growth of bacteria upon its roots. These bacteria have the power to take nitrogen from the air and store it up. When the ground is then plowed, it is found to have been wonderfully improved by the addition of the nitrogen. Then, by its deeply-penetrating roots, it feeds upon the lower depths of the soil, and draws up to the surface the stores of fertility of the lower soil. Thus, the surface soil is greatly enriched. When alfalfa is again sown on this soil, the crop will yield better than before. Of course, in time this will not hold good, as the soil will become exhausted of the mineral elements of plant food. Then it will be found necessary to add something to the ground in the shape of fertilizers. However, alfalfa adds to the available fertility and increases the productivity of the land in several ways. The bacteria on the roots of the plants take nitrogen from the air, and change it into food for the plant. Much of this nitrogen is contained in the roots, and when these are plowed up and decay, the soil is very greatly enriched in nitrogen. Also, much rich material is brought up from the subsoil, and made available as plant food. The continued dropping of leaves also adds to the humus and nitrogen of the soil.

Estimates made at the New Jersey Experiment Station indicate that the plantfood gathered by an acre of alfalfa in two years was equal in nitrogen to that contained in 3,500 pounds of nitrate of soda; in phosphoric acid, to that contained in 600 pounds of superphosphates; and in potash, to that contained in 1,200 pounds of muriate of potash; the whole having a commercial market value of \$124.00.

Then, if the farmer who has some depleted land is able to get an alfalfa field established, and saves the hay from it, he can, by feeding with care, saving the manure, and putting it out upon another tract of land, enrich this sufficiently to grow alfalfa. Thus, now, by growing two fields of it, using the hay and saving the manure, he is able to enrich a third field. Thus, in a short time he may have all of his farm in a productive state, and yielding him profit, where before he had loss.

Thus we get a slight idea of the value of alfalfa as a crop and as a feed. G. S. DUNKIN, O. A. C., Guelph.

Thin Seeding of Grain.

Editor "The Farmer's Advocate":

An old and influential journal like "The Farmer's Advocate" must time and again refer to the same topics. This is useful, if the paper is to do its duty faithfully. We must remember that every year adds new readers of its instructive pages, many of whom have become subscribers because of lack of necessary knowledge in a calling new to them. Talking with a young man whose father was a tradesman, and who had recently bought a farm for the boys, he spoke of how they were handicapped for want of farm knowledge. When asked what farm papers they took, he replied: "None; father does not believe in them." "That is bad," I said. "Yes," he replied. "I know it is. Only last year we were stuck, not knowing what to do, when, by chance, I got a copy of 'The Farmer's Advocate,' which con-

tained the very information we needed, and it was worth dollars to us." Doubtless, many could give like testimony. So, when we see articles on familiar topics, we may be sure that someone will find it interesting and instructive reading.

The quantity of seed grain to sow per acre for best results is a much-disputed question. Some argue that the better the land, the less seed is required, and, for poor soils, more; others hold the opposite view. We give here our experience, which may be helpful. We space our fruit trees to allow for root and branch development. We thin our roots for the same reason. Plants of all the grains require the same consideration. As a general thing, wheat, oats and barley are sown too thickly, while peas are not sown thick enough. It is computed that there are in wheat, per pound, 13,920 grains; barley, 12,000 grains; oats, 12,000 grains; large peas, 1,600 grains; small peas, 3,840 grains. At this computation, one bushel of each variety per acre would give, of wheat, 19 plants per square foot; barley, 13; oats, 9; large peas, 2.2; small peas, 5.3, or, it allows 7 square inches per plant for wheat, 11 for barley, 16 for oats, 65 for large peas, and 27 for small peas.

These figures seem to show that one bushel of seed per acre should be sufficient for wheat and barley; oats would require somewhat more, and peas much more. Our experience justifies these conclusions. We have grown very heavy crops of both wheat and oats from one-bushel sowing. Last year we sowed one acre of barley with one bushel, and the rest of the field with one-half bushel per acre. At harvest time there was little difference in the appearance of the whole field; the thin seeding gave the plumpest sample. One season we sowed thirty acres of fall wheat. We sowed part at the rate of 2½ bushels, part at 1½ bushels, and part at 1¼ bushels. It was a good wheat year, and at harvest all of it appeared equally good. The thick seeding gave most straw, but the heads were shorter. We threshed 1,200 bushels off the 30 acres. If the fall seeding is favorable, we now sow about 1½ bushels per acre, and consider any more a waste of seed. For spring grain, we usually sow about 2 bushels oats, 1½ barley, and 3 bushels of small peas; large peas would require 4 bushels. We have observed that side-oats do not tiller as do branching oats, and require to

be sown thicker. Peas require thick seeding, for the reason that insects and cutworms eat so many of the plants.

The advantages of thin seeding are a saving of seed, longer straw and heads, a plumper sample of grain, and it gives grass and clover seeds a better chance. The disadvantages are a greater liability to go down by heavy storms, and, should an early drouth occur, the stand may be too thin to yield well.

The advantages of heavy seeding are shorter straw, and more of it; not so liable to go down by wind-storms, and gives less chance for weeds to grow.

In closing, we would recommend the sowing of one acre of each class of grain thinly, and reserve that acre for seed, letting it stand until fully ripe. The grain will then have a better-developed germ, be plumper and heavier, and consequently will be worth much more for seed for the next season. This is especially true of barley; no grain suffers so much from early cutting; the straw being soft and weak, the hot weather dries it out before the grain is matured. FOYSTON BROS. Simcoe Co., Ont.

Field-crop Competitions.

In connection with the Field-crop Competitions, to be held throughout Ontario, provision has again been made for sheaf and threshed-grain exhibits at the autumn and winter fairs. Following are particulars of these two phases of competition:

Grain Exhibit at Winter Fairs.—Prizes will be offered by the Department for two-bushel sacks of grain at both Guelph and Ottawa Winter Fairs, the competition for which will be confined to prizewinners in the Standing Field-crop Competitions. Fuller particulars will be furnished later to the prizewinners.

Sheaf Exhibit.—In addition to the above, arrangements have been made with the directors of the Canadian National Exhibition, to be held in Toronto, August 27th, to Sept. 12th, to donate \$240 in prizes for the sheaf exhibit of grain from the fields in the Standing Field-crop Competitions. Those eligible to enter are the first, second and third prizewinners. For this sheaf exhibit, the Province has been divided into three districts, and prizes amounting to \$80 will be awarded to competitors in each of the three divisions mentioned below for the following kinds of grain:

Fall Wheat.—First prize, \$6; second, \$5; third, \$4; fourth, \$3; fifth, \$2.

Spring Wheat.—First, \$6; second, \$5; third, \$4; fourth, \$3; fifth, \$2.

Oats.—First, \$6; second, \$5; third, \$4; fourth, \$3; fifth, \$2.

Barley.—First, \$6; second, \$5; third, \$4; fourth, \$3; fifth, \$2.

Division 1.—Includes Muskoka, Parry Sound, Haliburton, Nipissing, Manitoulin, Algoma, and other districts in New Ontario.

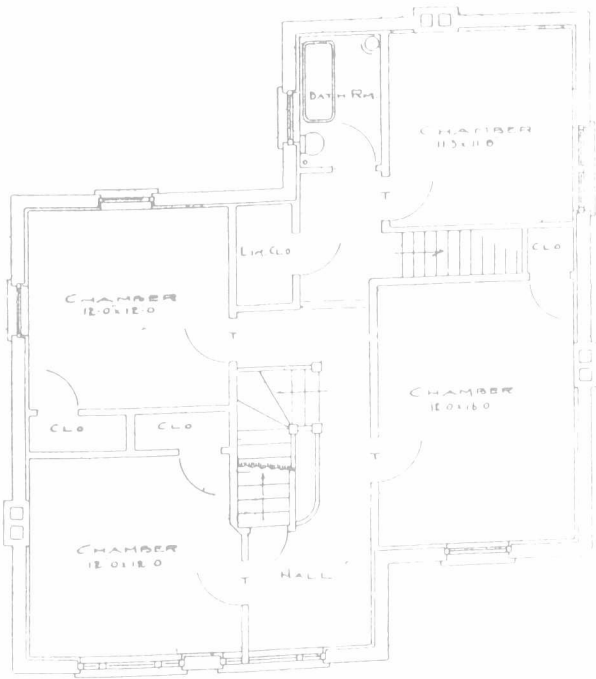
Division 2.—All counties east of York and Simcoe.

Division 3.—York, Simcoe, and all counties west and south-west of same. Each sheaf must not be less than eight inches in diameter, and must be boxed, and shipped C. O. D. to the Superintendent of Agricultural Products, Exhibition Park, Toronto, not later than August 20th. All entries for this exhibit must be made to J. Locke Wilson, Parliament Buildings, Toronto, before August 1st, 1910.

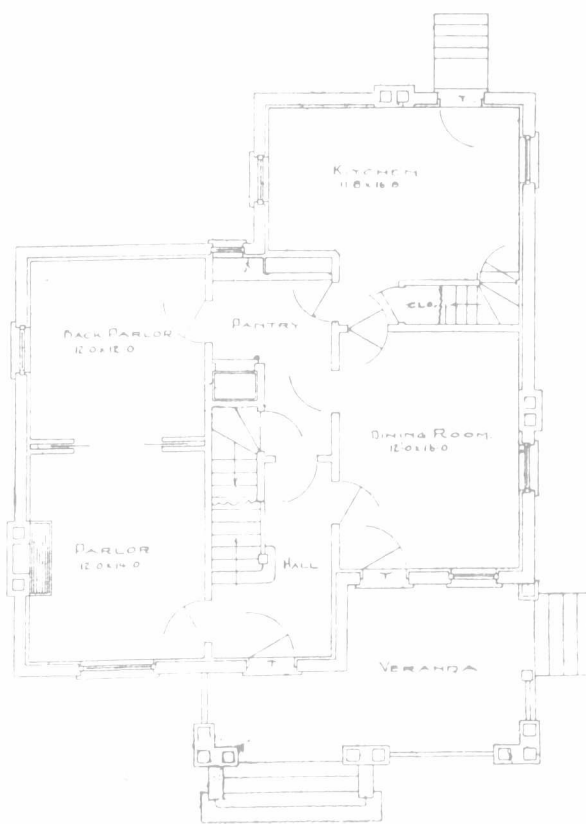
In addition to the above, the Directors of the



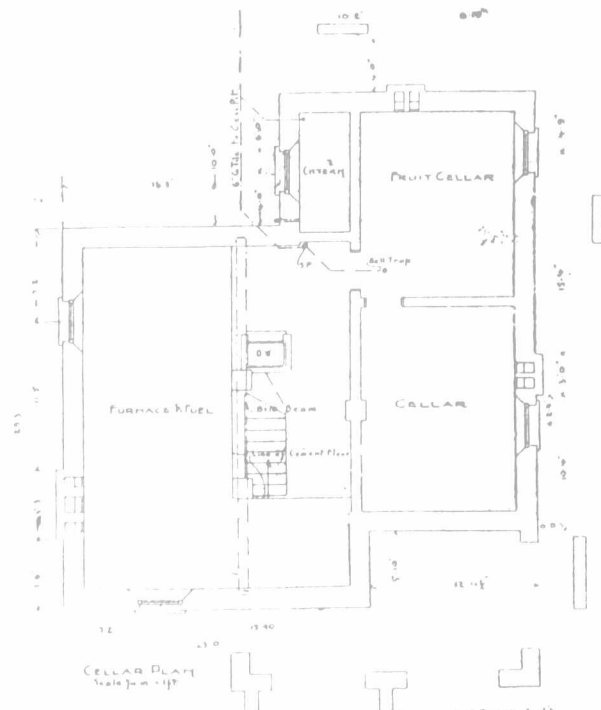
Elevation of Mr. Loghrin's House.



First-floor Plan of Mr. Loghrin's House.



Ground-floor House Plan.



Cellar Floor-plan of Mr. Loghrin's House.

Submitted without description, in Building-plan Competition, by Thos. A. Loghrin, Perth Co., Ont.

Central Canada Exhibition, Ottawa, offer prizes for two bushels of white oats, together with sheaf of same, to be taken from a field which has won a prize in the Field-crop Competitions during 1910. Those wishing to enter for the Ottawa competition must communicate with E. McMahon, secretary, Ottawa, who will forward prize list.

Experiments With Farm Crops.

The members of the Ontario Agricultural and Experimental Union are pleased to state that for 1910 they are prepared to distribute into every township of Ontario material of high quality for experiments with fodder crops, roots, grains, grasses, clovers, and fertilizers, as follows:

| No. | EXPERIMENTS. | Plots. |
|-----|---|--------|
| 1 | Three varieties of oats | 3 |
| 2a | Three varieties of six-rowed barley | 3 |
| 2b | Two varieties of two-rowed barley | 2 |
| 3 | Two varieties of hullless barley | 2 |
| 4 | Two varieties of spring wheat | 2 |
| 5 | Two varieties of buckwheat | 2 |
| 6 | Two varieties of field peas | 2 |
| 7 | Emmer and spelt | 2 |
| 8 | Two varieties of Soy, Soja, or Japanese beans | 2 |
| 9 | Three varieties of husking corn | 3 |
| 10 | Three varieties of mangels | 3 |
| 11 | Two varieties of sugar beets for feeding purposes | 2 |
| 12 | Three varieties of Swedish turnips | 3 |
| 13 | Two varieties of fall turnips | 2 |
| 14 | Two varieties of carrots | 2 |
| 15 | Three varieties of fodder or silage corn | 3 |
| 16 | Three varieties of millet | 2 |
| 17 | Two varieties of sorghum | 2 |
| 18 | Grass peas and two varieties of vetches | 3 |
| 19 | Rape, kale, and field cabbage | 3 |
| 20 | Three varieties of clover | 3 |
| 21 | Testing two varieties of alfalfa (lucerne) | 2 |
| 22 | Four varieties of grasses | 4 |
| 23 | Three varieties of field beans | 3 |
| 24 | Three varieties of sweet corn | 3 |
| 26 | Fertilizers with Swedish turnips | 6 |
| 28a | Two varieties of early potatoes | 2 |
| 28b | Two varieties of medium-ripening potatoes | 2 |
| 28c | Two varieties of late potatoes | 2 |
| 29 | Three grain mixtures for grain production | 3 |
| 30 | Three grain mixtures for fodder production | 3 |

Each plot is to be two rods long, by one rod wide, except No. 28, which is to be one rod square.

Any person in Ontario may choose any one of the experiments for 1910, and apply for the same. The material will be furnished in the order in which the applications are received, while the supply lasts. 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 will, of course, become the property of the person who conducts the experiment.

O. A. C., Guelph. C. A. ZAVITZ, Director.

Draining and Early Sowing Pay.

Editor "The Farmer's Advocate":

Wheat, oats or barley should follow a hood crop, and the land should be thoroughly plowed in the autumn, no matter what the previous crop has been. In spring-time the disk harrow will be found best on land where corn has been grown, as it will not bring the stubble to the surface. If the land is hard, it may require two diskings, and 2 or 3 times over with the smoothing harrow. If the land had roots on the previous year, the spring-tooth cultivator will be most useful, also followed by the smoothing harrows. If the grain is to be sown on sod-land, it should be plowed early the previous autumn, so as to get the sod rotted and firm in the bottom. In the spring, the disk will be found best, and with it the land should be gone over several times, then harrowed. The surface, to the depth of three or four inches, should be thoroughly pulverized before sowing.

In preparing for roots, the land should be thoroughly plowed in the autumn, and, if sub-soiled, all the better. If manure has been applied during the winter, it should be plowed under in the spring, about four inches deep, then thoroughly harrowed, ribbed and rolled before sowing. If land for corn is clean, and manure has been applied, plow about 4 to 5 inches deep, and with not too flat a furrow. Should the land be full of weeds, especially couchgrass or sow thistle, do not plow until the day before sowing the corn, then turn a furrow seven inches deep, if the soil will allow; if not, plow shallower. In all cases work the surface as thoroughly as if you were going to sow garden seeds.

Corn stubble should always be plowed for future crops. The seed-bed can then be made much finer. The two-furrow plow will work the land cheaply, and a better covering and catch of grain and clovers can be secured from the plowed land than from the simple-cultivated corn stubble.

I have used the disk, shoe and hoe drills, and, to my mind, there is no comparison between the others and the single-disk drill. The disk drill

runs more easily, sows evener, and pulverizes the soil better than any of the others mentioned. I have also used three different kinds of rollers, and the one I prefer by all odds is the flexible roller. The drum is larger, draws easier, although heavier, and hugs the ground, no matter how uneven it may be, and you can turn quite short at the ends without digging a hole or breaking the pole.

A good catch of clover can be secured by every farmer growing his own clover seed, and sowing more of it. The majority of farmers fail right here. They do not sow enough seed per acre, of good quality. Sow in the spring-time, as soon as the soil is warm and dry enough to germinate the seed. If the soil is raw and cold, do not sow any kind of seed. If sown with the disk seeder attachment, allow the seed to drop behind the disks, but directly in front of the chains. The chains will cover the small seed sufficiently. If sown by hand in a mixture, sow directly behind the seed drill, when the soil is fresh, then run the harrows over the field to cover the seed. After the grain is well up, and the soil dry, pass the roller over the land to smooth the surface. This

those tests it is demonstrated most conclusively how important it is that farmers should sow all their grain crops promptly, and, if possible, within ten days after the ground, prepared by plowing in the autumn, is ready for seeding.

At the present time we have fields drained, partly drained, and fields without drains. In every case where the drains are in, the soil is ready to work from one to two week earlier in the spring. There are two fields where the low lands are drained, and the high lands undrained. The high lands would appear not to require draining to the average person. I have no hesitation in saying that if this high land was underdrained the crop would be doubled each year. A few of the benefits of tile drainage are that it promotes filtration, renders the soil more porous, and facilitates through cultivation. It warms the soil by lessening evaporation. Soil well drained holds more moisture than if undrained. Drainage prevents the baking of the surface soil, promotes plant-growth by allowing the air to enter the soil, and deepens the root system by lowering the water level. It promotes fermentation of manures and prevents heaving of plants by frosts; and, by quick removal of the surface water, it lengthens the season for cultivation, and gives plants longer time to mature. Increased crops are, therefore, sure to follow. JOHN FIXTER, Macdonald College, Que.

Are We Ready for Spring?

Editor "The Farmer's Advocate":

The preparation for spring grain should begin in the previous fall. We generally skim-plow the stubble as soon as the crop is taken off. We then use the harrows pretty freely, and get the ground thoroughly pulverized. Sometimes we sow rape seed after fall wheat, and if we have a few nice showers, it will sometimes grow up to be a nice bite for the pigs and young cattle before winter. We always endeavor to plow again before it freezes up. This leaves the ground in good shape, so that the frost will finish up the pulverizing process, and thus have the ground in nice condition in the spring. We like to go over all the ground intended for spring grain with the cultivator as early as possible, just as soon as it will work without packing. Then, when we have gone over all the ground intended for spring grain, we come back to what we did first. If there is any manure to spare, we have it in a large pile in the field, and we then take the manure spreader and put on about three loads to the acre. Then we cultivate again, going across the way we did it the first time. The ground is now ready to sow, if it is dry enough, but we never approve of mudding it in.

We always see that our seed grain is well cleaned up, generally putting it twice through the fanning mill. The quantity of seed per acre will vary, according to the condition of the soil. If it is moderately rich in humus, and has been brought to a fine tilth, then, perhaps, 1 1/2 bushels of barley will be thick enough; or, 2 bushels of oats will be better than 2 1/2. But, if the ground is not in good condition, more seed will be required. I have seen a 13 1/4-acre field of oats headed out beautifully, and quite thick enough, on which there was only sown 16 bushels of seed. But the ground was rich, and in perfect condition. We have sown barley 1 1/2 bushels to the acre, and it was quite thick enough at harvest time; and we have sown 2 1/2 bushels, and it was too thin. It all depends on the state and condition of the soil, and, of course, not a little on the season.

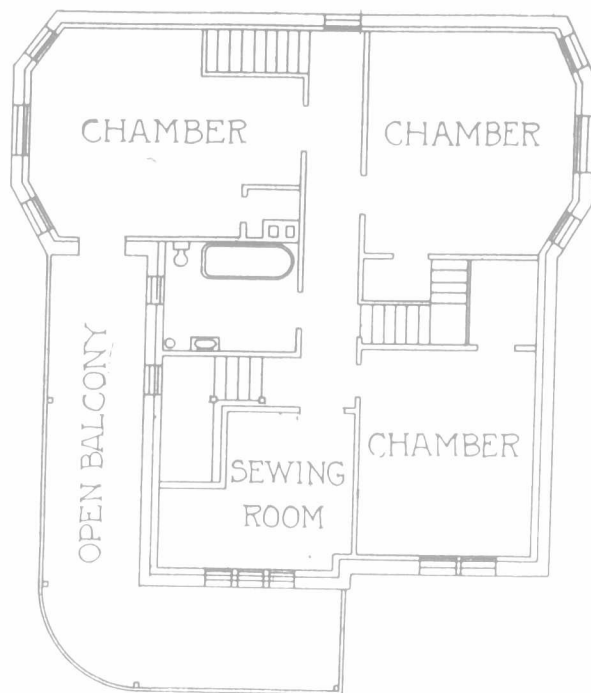
We are to plow a field of sod this spring. If the weather is dry when we plow, we will roll immediately, then go over it with the disk harrow; then, on part of it we will put about three loads of manure per acre with the manure spreader. We will then cultivate or disk, and then sow to oats. We will not plow the headland until most of the work is done, or, at least, not until the manure has been put out, which will make the work much easier for the horses. We believe in plowing the corn-stubble land in the fall.

We prefer seeding down to clover after corn or roots, and endeavor to have the soil as fine and loose as possible. When the ground is dry enough, we generally harrow and roll immediately after the grain drill, and, as a rule, we have good success.

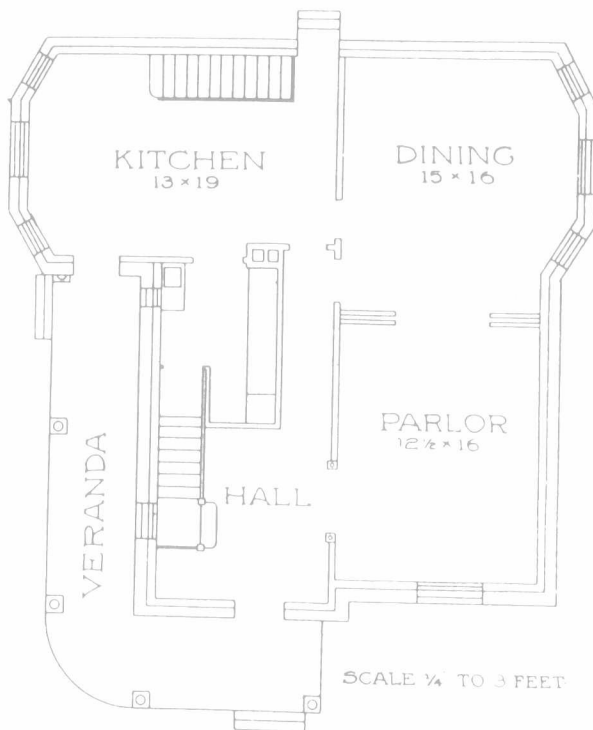
Disk grain drills are not much used here. We use a hoe drill, with rubber tubes. Our drill has also spring teeth, and we occasionally put these on, and broadcast the seed, but, in ordinary seasons I think that it is best to drill it in. It is then all covered up.

We have a large steel roller that covers about nine feet. It is in two sections, each moving independently of the other, and we think it is the best kind of a roller. On land that is not seeded down it is a good plan to go over the field with the harrows a day or two before the grain comes through the ground, if the land is dry enough.

We have often noticed that, everything else being equal, the earlier that grain is sown, it is so much the better a crop. Quite a number of years ago there was a nice spell of weather in March and, as there was no frost in the ground,



First-floor Plan of Mr. Jamieson's House.



Ground-floor House Plan.

Submitted without description, in Building-plan Competition, by J. Jamieson, Simcoe Co., Ont.

will also break the crust, and help to retain the moisture in the soil.

Having charge of experiments with early, medium and late sowing, carried on for ten years, the following are the results: Do not sow until the soil is warm and dry enough to germinate the seed quickly, and do not lose a minute after it is dry.

The loss in crop of oats by delay of one week in sowing was over 15 per cent.; two weeks, 22 per cent.; and three weeks, 32 per cent. Loss in barley by delay of one week in sowing, 23 per cent.; two weeks, 27 per cent.; and three weeks, 40 per cent. Loss by delay in sowing wheat: one week, 30 per cent.; two weeks, 40 per cent.; and three weeks, 50 per cent. Loss by delay in sowing peas: one week, 4 per cent.; two weeks, 12 per cent.; and three weeks, 22 per cent. From

REPEATED

POOR COPY

I plowed a small field, and immediately sowed it to oats. It came frost and snow after that, but that was the best piece of oats I ever raised, good tall straw and heavy grain. The early grain gets a good start, and grows right along. Land that is over a gravel subsoil, perhaps, does not require draining, but land that is at all wet will pay a large dividend on the cost of drainage, if it is properly done. About 40 years ago, I recall a concession line in the Township of Whitby, on the north side of which was a farm well drained, that in one particular season yielded an average of 33 bushels of spring wheat to the acre. The farm on the south side was not drained, and did not yield 15 bushels to the acre. Two or three seasons like that would pay for all the cost of draining. D. L. Oxford Co., Ont.

How to Experiment With Fertilizers.

Editor "The Farmer's Advocate":

In "The Farmer's Advocate" of March 17th, on page 447, I read with great interest a letter by Alfred Hutchinson, in which he recorded the results of some fertilizer experiments, conducted in the years 1908 and 1909.

While fully appreciating the careful and observant attention which Mr. Hutchinson obviously bestowed on these experiments, I feel it incumbent on me to offer some explanation of the results obtained, lest they should mislead the uninitiated, and I am sure Mr. Hutchinson will pardon my criticism of his plan of experiment. The plan given by Mr. Hutchinson is as follows:

- Plot 1.—Check plot; no fertilizer.
- Plot 2.—Muriate of potash, 160 lbs. per acre.
- Plot 3.—Superphosphate, 320 lbs. per acre.
- Plot 4.—Nitrate of soda, 160 lbs. per acre.
- Plot 5.—Mixture of the three, 220 lbs. per acre.
- Plot 6.—Special brand of potato fertilizer, 320 pounds per acre.
- Plot 7.—Another brand, 320 lbs. per acre.
- Plot 8.—Farmyard manure, 20 tons per acre.

This, then, is the plan adopted by Mr. Hutchinson for his experiment on potatoes in 1908, and, with the omission of plots 6 and 7, for the experiment on turnips in 1909. In speaking of the results of the potato experiment, Mr. Hutchinson says: "If there is one fact more than another emphasized by these results, it is that no one can tell what fertilizer will give the best results until he actually tests them. Probably a majority would have banked on the potash, and the remainder would have guessed a mixture, or a special potato fertilizer, and yet superphosphate is away ahead of them all."

My deductions from the results would be as follows: Firstly, since potash, superphosphate and nitrate of soda, applied separately, each produce an increase over the check plot, except nitrate of soda applied alone to the turnip crop, which yielded rather less, all these ingredients are required in certain proportions on that soil; secondly, superphosphate having yielded the largest increase, phosphoric acid would seem to be the most deficient, and, therefore, the limiting factor of crop production on the soil in question. Further than this, the results prove nothing definite, since there was no proper basis of comparison. True, there was a plot which received a mixture of three separate fertilizers, we presume about one-third each of the quantities applied to the other plots, as the amount is given as 220 pounds per acre, just about enough to what the appetites of the plants. Of the composition of the two brands of "Potato Fertilizers" we know nothing, and should like to know whether Mr. Hutchinson does, but naturally a considerable proportion of their weight would be "filler."

Now, the three plant foods removed from the soil in the ordinary process of cropping are nitrogen, phosphoric acid and potash, which may be supplied in the forms of nitrate of soda, superphosphate, and muriate of potash, respectively. Each of these ingredients has its own special function to perform in plant life, and the addition of an extra quantity of one cannot make up for the deficiency of another, and one cannot compare the effect of an application of potash alone against superphosphate alone, any more than, in feeding live stock, one would compare the results of hay against roots, in order to find out which was the best stock food. Justus von Liebig, the celebrated German Agricultural Chemist, said that the plant-food constituent present in the soil in the smallest quantity determined the amount of crop which could be grown thereon, and this became known as "Liebig's Law of Minimum." The same idea may be expressed by "The strength of a chain is that of its weakest link." The weakest link in Mr. Hutchinson's soil seems to be phosphoric acid, so that it is not to be expected that he would derive much benefit from applications of nitrogen and potash, unless the demand for phosphoric acid were, at the same time, satisfied by an application of superphosphate. But Mr. Hutchinson has not proved by his experiments what results might be obtained from a properly-

balanced, complete fertilizer, applied in reasonable quantity. Three hundred and twenty pounds of superphosphate was probably a sufficient amount of this material to apply alone; perhaps too much for potatoes, as there would not likely be sufficient potash and nitrogen available in the soil to go along with it. Instead of reducing this quantity, then, for the mixture, if Mr. Hutchinson had applied full quantities of each ingredient, very different results might have been obtained.

Mr. Hutchinson says that his experience with fertilizers in England is now little more than a memory, and I am sure he cannot remember ever having applied as little as 220 pounds of a complete fertilizer for roots or potatoes in that country. Over there, it is quite usual to apply as much as 600 pounds per acre of superphosphate for turnips, phosphoric acid being the dominant ingredient in a fertilizer for that crop, and I should like Mr. Hutchinson to try the following application for turnips on his farm:

- 10 tons barnyard manure.
- 500 lbs. acid phosphate (superphosphate).
- 130 lbs. muriate of potash.
- 130 lbs. nitrate of soda, per acre.

Seeing that I have found fault with the plan of experiment employed by Mr. Hutchinson, I suppose it is up to me to suggest a better, so here goes:

- Plot 1.—Check plot, no fertilizer.
- Plot 2.—Complete fertilizer (potash, phosphoric acid, and nitrogen).
- Plot 3.—Without potash, but same quantities of phosphoric acid and nitrogen.
- Plot 4.—Without phosphoric acid, but same quantities of potash and nitrogen.
- Plot 5.—Without nitrogen, but same quantities of potash and phosphoric acid.

This five-plot test is the recognized nucleus of all fertilizer experiments, and is the primary plan to be adopted. If desired, the plan may be extended by the addition of further plots to which the fertilizer ingredients may be applied separately, or of others to test the efficacy of varying quantities and combinations. If manure is used in the experiment, it should be equally distributed over all the plots to insure a fair comparison, the sine qua non of such a test. I am sure that Mr. Hutchinson, as a sensible, thinking man, will admit the value of this plan of experiment, and trust he will put it to the test. I quite agree with Mr. Hutchinson's statement that fertilizers should be used supplementary to, and not as substitutes, for farmyard manure on root crops. Regarding the application of superphosphate to grain and corn, where the results were not apparent to the eye, it ought to be borne in mind that phosphoric acid will influence the grain and corn kernels more than growth of stem and leaf. Corn is a rank feeder, and will usually respond to judicious fertilizing. While grain crops also benefit from a fertilizer application, I personally prefer to have the grain follow a crop to which fertilizers have previously been applied, as there is likely to be a sufficient supply remaining in the soil to satisfy the wants of a grain crop.

I must apologize, Mr. Editor, for occupying so much of your valuable space, but the subject is both important and opportune.

Toronto, Ont. B. LESLIE EMSLIE.

Cost of Cleaning Seed Grain. 10

The average farm fanning mill will handle about forty bushels per hour, says a bulletin from the Extension Division of the Minnesota Experiment Station. At this rate, it is calculated that in eight hours two men can clean 320 bushels. This will make the cost something less than one cent per bushel. By setting a mill so only 10 per cent. of the very best seed is saved for seed, and the balance sold or fed, seed of first quality, and free from weed seeds, can be secured.

Ten per cent. of 320 bushels is 32 bushels. These 32 bushels will be usually free from weed seeds, and will contain, for the most part, the best breeding individuals in the grain. It will cost in labor from five to ten cents per bushel. One bushel per acre increase in yield will pay for this labor and leave a very handsome profit. An increased yield from two or ten bushels per acre, it is asserted, may be expected, if seed grain is properly selected.

Read from Childhood.

I am just in receipt of "The Farmer's Advocate" penknife, which you so kindly sent. I can assure you I appreciate your kindness very much. I can go back in memory at least 36 years and distinctly remember looking over "The Farmer's Advocate" when not more than a lad of eight. In fact, I cannot recall any other paper in our home at so early a date. I cannot say whether the paper has been continuously in our home or not, but as my memory serves, it has. I expect to keep right on taking it as long as I farm, and then I should not lose my interest, and could not well keep in touch in any better way than to keep right on reading your paper.

Brant Co., Ont. FRANK M. LEWIS.

Spring Work in Nova Scotia.

Editor "The Farmer's Advocate":

Now that spring is at hand, all agriculturists are turning their minds toward the various problems of out-of-door spring work. From the Maritime Province point of view, these might be classified under five headings: First, what is the best method of tillage for root and grain crops to be planted during the spring? This depends quite largely on the previous preparation of the soil. We believe in fall plowing as early as possible, running the harrow over weedy ground probably twice before the snow flies. Thus we germinate many weed seeds, and clean our land to considerable extent. If preparing this ground for roots—as we do in our four and five year rotations—we manure in the spring, and either turn manure under lightly or disk the same. On land like corn stubble, as soon as corn is harvested we cultivate with a spring-tooth harrow, and allow the land to lie for a week, in order to germinate weed seeds. If possible, we plan to sow this in the late fall, but we have had very good results with deep cultivation with spring-tooth and disk harrows. As our rotations are short, and we believe in but one application of manure in the rotation, this land, together with root land, is well tilled in the spring, and seeded to grain. If the spring is early, we always plan on leaving the land for two or three cultivations, six days apart, in order to kill weeds.

Another very prominent question is that of machinery. We seed all our grain with the disk drill. This gives excellent satisfaction, especially if the land is somewhat lumpy, or should there be loose straw on the surface. However, we used the hoe drill for several years, with splendid satisfaction, but the former sort is gaining favor strongly. We also use a heavy steel roller, put up by an Ontario company. The use of this depends quite largely on the class of soil, as well as on the season and crop. Very often we use this instrument to smooth our field before seeding, but we use it extensively directly after seeding in dry weather to compact the soil, and cause hasty germination. Again, after the crop is nicely through the ground, we run the roller over the grain to break the surface crust of earth, and we think it induces, to some degree, the stooling of the plant.

Another question so vital to all stockmen is that of securing a good catch of clover. Failure to do so may be due to six general causes, as follows: First, poor seed; second, poor tillage; third, inadequate drainage; fourth, weeds; fifth, absence of lime; and sixth, absence of nodule-forming bacteria. All these points must be considered, for the neglect of one, although other conditions may be favorable, will invariably cause a loss in crop.

Another question which presents itself is that of early seeding. Should our land be free from weeds, we plan to get the crop in as soon as the weather permits. We find that this invariably produces greater yield of crop, in grains by some ten bushels per acre, and proportionately with other crops. We attribute this to the following reasons: Early cultivation means conservation of the moisture accumulated during the winter, and this is a very important factor, especially in dry summers. It also induces drying out of the surface for seeding, and the killing of weeds. Invariably, we find a heavier root system, earlier maturity, more uniformity in ripening, and better weather for harvesting. Should our grain show somewhat yellow from early seeding in a wet spring, we often use 150 pounds nitrate of soda to correct this lack of free nitrogen in the soil.

But all these points are largely regulated by the amount of water in the soil. The drainage problem is of great importance on almost every farm in Eastern Canada, and the benefits of proper drainage have been most marked with us. Our best land at the present time was originally swamp land, but this has been thoroughly underdrained, and it nearly paid for the operation in one year. Other parts of the farm were late and cold, and, with a system of underdrains costing \$21 per acre, more than paid for the operation inside of three years. By underdraining these fields, we have made them uniform for seeding, thus obtaining better crops for the whole area. They are worked more easily and deeply, thus making crops more drought-resistant. We obtain better results from our manure, more uniform and stronger germination of seed, and thus heavier crops. We have saved a large amount of surface washing, which is so common in our irregular Maritime conditions, and the life of our machinery has been extended by several years. We have practically all classes of soils represented on our farm, from sand to clay, upland swamps, and reclaimed salt marsh, and in all cases where there were indications of the need of drainage, underdrains have paid not less than 10 per cent. on cost. Surely this is a good profit in itself, and we advise any whose lands need underdrains to start at once, even though he has to borrow money to do so.

E. S. ARCHIBALD.
Agricultural College, Truro, N. S.

Seeding Practice in Essex Co., Ont.

Editor "The Farmer's Advocate":

We do not grow any spring wheat in this district. In oats, the Banner and Silver Mine are the favorites, as they give a better yield to the acre, and weigh more to the measured bushel than other varieties that have been tried. In potatoes, the Early Rose seems to be the old standby for the light land, and the Rural New Yorker for the heavy soil, both kinds being good croppers and excellent keepers. The Irish Cobbler, an early potato, is taking a prominent place of late. Earliness in this crop is an advantage, as it insures ripening before frost. Very few roots are grown. The Learning and the White-cap Yellow Dent have the preference among varieties of corn, but I think there is more White-cap Yellow Dent grown than all other kinds combined, as it is almost sure to give a good yield of ears on any kind of land.

We make no difference in the amount of grain sown to the acre, whether seeding down with grass or not. Nine-tenths of the grain crop grown is seeded down. The common mixture is common red clover and timothy, in the proportion of 7 pounds of clover to 3 pounds of timothy seed per acre, and sown with the drill. The advantages of seeding the most of the grain area are that it secures autumn pasture and increased fertility of land.

Tomatoes are grown for canning, and cucumbers for the pickle factory.

No alfalfa is grown that I know of, and we grow no soiling crops.

There has been no increase in the corn area. All that can be taken care of is planted, and that has been the practice for some years. The order in which our crops are sown is, first, oats, then a mixture of oats and barley; then corn.

Essex Co., Ont. JOS. C. THOMAS.

Prof. Andrew Boss, Chief of the Div. of Agriculture in the Minnesota Experiment Station, states that something over 15,000 bushels of pedigreed seeds have been distributed at first hand to 3,248 co-operating seed-growers, and that these men have in turn supplied so many farmers that it is estimated that from one-fourth to one-third of the grain-growing area of Minnesota is now seeded annually to improved seeds developed at the Experiment Station.

Do not expect alfalfa to thrive on an acid soil. Thirty to fifty bushels of air-slaked lime per acre, worked into the soil before seeding, will often insure vigorous growth where the crop has done poorly before. Or the lime may be broadcasted on a field already under the crop.

THE DAIRY.

Testing Cream for Fat.

Editor "The Farmer's Advocate":

Testing cream for fat appears to be somewhat like marriage, of which an old writer says: "Marriage is a blessing to a few, a curse to many, and a great uncertainty to all."

Some use the 17.6 c. c., or milk, pipette, when measuring a sample of cream for the Babcock bottle. This is incorrect, and should not be used. The reason for this is that the graduated part of the neck of the Babcock bottle gives the percentage of fat in the sample when 18 grams of milk or cream are weighed or measured for a test. If less or more than 18 grams be delivered into the bottle, the reading will be less or more than the correct one by the amount below or above the standard of 18 grams. By using 9 grams, or 6 grams, and multiplying the reading by 2 or 3, correct results may be got by using less than 18 grams. Sometimes a special bottle is used, giving the percentage of fat directly when 9 grams, or 9 c. c. of cream, are used.

Some use an 18 c. c. pipette, and rinse the pipette into the cream bottle. With cream testing not over 30 per cent. fat, this method gives approximately correct results, for the reason that the specific gravity of cream, up to 30 per cent. fat, is practically one; i. e., one c. c. of such cream weighs 1 gram, therefore 18 c. c. weigh 18 grams. Above 30 per cent. fat, a slight error is introduced by using the pipette, and the man selling such cream suffers an injustice to a certain extent, if the sample be measured. To overcome this, we have suggested a correction factor of one-tenth addition for each percentage of fat above 30. For instance, if a sample of cream gave a reading of 36, the percentage of fat in the sample would be 36.6; if 38, the percentage would be 38.8; if 45, it would be 46.5, and so on. The object of this addition factor is to overcome the extra labor and expense of weighing samples, as compared with measuring, and to give more even-handed justice to those patrons of a creamery who send in the richer cream. It is not claimed that this is absolutely correct, because there is no such thing, but it is near enough for all practical purposes, and simplifies the work of testing. When we consider that one-half of one per cent. is within the "limits of error" in testing cream, it re-

moves the force of the argument that such a method encourages carelessness and dishonesty.

Those parties who shout for "absolute accuracy" when testing milk or cream, remind me of a man who read a well-known passage, "They strained at a gate, and tried to swallow a saw-mill." Then, we have those who advocate and use the scales for weighing samples of cream for testing. Many of the States in the neighboring Republic require by statute that scales or balances shall be used for this work. To those who believe in the use of the scales, we say, you certainly ought to use them. If we had a statute in Ontario requiring their use, all law-abiding citizens would of necessity use them. Under present conditions, it is a question if the scales give even "cold justice," because many of the scales are probably not sufficiently sensitive for accurate work. They often "stick." The operator who has put in a drop or two too much is inclined to "let it go at that," owing to the difficulty of removing the extra amount. On the other hand, if it is nearly balanced, he is afraid to add more, for fear that he may put in too much. From my own experience in handling students, I find that the average untrained man is more likely to make an error with a balance or scale than with a pipette. Dr. Babcock, the inventor of the test, no doubt recognized this practical difficulty when perfecting the test. He saw that the average man is much more likely to do reasonably accurate work measuring with a pipette than weighing with a balance, and that he can do the work much more rapidly by measuring than he can by weighing. All admit that a trained man, and a correct balance, will obtain more accurate results than can be got with a pipette, but there are practical difficulties in the way of using balances in ordinary creamery work.

If the creameries are prepared to use a correct balance, and will employ trained men to do the testing, then we should favor the use of the balance, and also testing of daily deliveries, but, under present conditions, we are doubtful of the practical value of the suggested change. The ordinary scale is far from accurate, and the conditions under which these are kept in average creameries are such as to render them inaccurate in a short time. One has only to examine the ordinary scale used in creameries to see the rusty condition of them in a short time. These scales have to be frequently renewed, and it is then difficult to keep them in such order that they will pass inspection every two years. At least, this has been our experience. If this be true for the ordinary scale, we can readily see how much more disastrous will be the effect of moisture, steam, etc., on a sensitive scale or balance.

COMPOSITE VS. DAILY SAMPLING.

The introduction of the "composite" method of sampling, whereby a representative sample is taken from each delivery of milk or cream, and the samples preserved for a month, or sometimes for only two weeks, meant a great saving in labor and expense for testing. Recently there has been an agitation tending to throw discredit upon the method of composite sampling, more particularly for cream. Where the composite sample has not been properly cared for, there may be justice in the claim that this method is unsatisfactory, but a man who is careless with reference to his composite samples, is likely to be careless with the testing of individual deliveries, and the latter plan makes an added expense for the buttermaker, creamery owner or manager, which is not absolutely necessary. Experiments conducted by an ex-student of the College in a creamery located in Western Ontario, during the season of 1909, confirm results obtained in the Dairy Department of the O. A. C., which show that, with reasonable care, the composite sampling for a month gives results which agree quite closely with those obtained by testing each delivery of cream. We have used a preservative made of about three parts bichromate of potash, one part corrosive sublimate, with good results—better than the old formula of 7 to 1. Full details of this work will appear in the Annual Report of the College, which will be out shortly.

H. H. DEAN.

Eastern Dairy School Examinations.

The final examinations of the Long Course of the Eastern Dairy School, Kingston, Ont., were concluded on Wednesday, March 9th. The total registration during this course was forty-nine, and of these, twenty-five took the final examinations, both written and practical, in Cheseemaking, Operating of Cream Separators, Buttermaking, Milk-testing, Boilers and Engines, as well as written examinations in Bacteriology and Dairy Chemistry. The following eighteen students were successful in passing in all subjects. The total number of marks obtainable was 900:

First-class Honors, 75 per cent. and over—F. M. Glass, Kingston, Ont., 729; G. A. Renwick, Westwood, 691; M. O. Trickey, Williamsburg, 682.

Second-class Honors, 60 per cent., and up to 75 per cent.—F. H. McDonald, Easton's Corners,

Ont., 657; Wm. Rourke, Cavan, Ont., 652; B. A. Reddick, Wooler, Ont., 628; Jos. Hennessy, Detlor, Ont., 621; J. McAllister, Pendleton, 617; A. H. Constable, Fleetwood, Ont., 602; R. A. Dougherty, Odessa, Ont., 577; John Hall, Rednersville, Ont., 576; J. H. Fawcett, Wolfe Island, Ont., 567; O. L. Davis, Greenbush, Ont., 550.

Third-class Honors, 40 per cent., and up to 60 per cent.—H. Steinburg, Orland, Ont., 528; H. Appleby, Morewood, Ont., 488; Jas. McFadzean, Ayer's Cliff, Que., 472; Wm. Davis, Wolfe Island, Ont., 457; German Seeley, Wallbridge, Ont., 451.

Watering and Stabling Cattle.

Editor "The Farmer's Advocate":

Seeing that the watering of cattle in stables was partly condemned a few months ago by Prof. Dean, I think those who have satisfactory water systems installed in their stables have been rather slow about defending what they have proved to be a good thing. The writer has, for the past three winters, attended to from 25 to 30 head of dairy cattle, that have been kept in the stable from December until May, water being kept before them in galvanized buckets, supplied by windmill. Others have been induced to use a trough erected in front of manger, on account of its first cost being less than that of the buckets and pipes; but when we consider that convenience adds to pleasure, and the saving of time and feed is money, the buckets prove to be the more economical. The trough is always in the way when feeding, and makes the task of cleaning the mangers very disagreeable, and if the mangers are not cleaned every day there will be more or less waste of feed, as well as danger of disease. The greatest advantage the method of watering in the stable with the bucket has over that of turning cattle out is that the bucket holds only about 15 pounds of water, and when emptied, it fills quite slowly. This makes it impossible for a cow to gorge herself with ice-cold water; it also gives her a chance to warm the water as she gets it. It has been said that a cow milking at full capacity will drink from 150 to 200 pounds water per day. Now, if this amount be taken, in either one or two drafts, it causes more or less of a chill. This means discomfort, and a smaller profit for feed than when the chill is prevented.

Our stable is 70 feet long, and 48 feet wide, with 10-foot space between stable and barn floors. The walls and stable floors are made of concrete. There are two rows of swinging stanchions, hung 3½ feet apart, lengthways of stable, and one row of large box stalls on the north side. An abundance of light is secured by thirteen large windows containing nine 10 x 14-inch lights. Ventilation is provided by means of two wooden boxes, or pipes, one at each end of stable, reaching to the peak of roof, with 3 feet of galvanized tin pipe and a hood above roof. In addition to this, there are 18 tiles or 4-inch holes near top of wall, several on each side and end of stable. These are left open, except when the outside temperature is 10 to 20 degrees below zero, but when the temperature rises 25 or 30 degrees above zero, some of the windows are raised a few inches, and the feed chutes left open. Drafts are avoided by keeping windows closed on the windy side. We have never had this stable filled to the limit of its capacity, but, with 30 head of cattle in it, and the ventilation regulated, we can keep water and turnips or mangels from freezing when the weather outside is 30 below zero. A low, dark, poorly-ventilated stable, with cows imprisoned in solid or stationary stanchions, or tied in narrow stalls, is not only out-of-date, but is not a suitable place to keep cattle that are expected to pay for their feed and the attention given them. The plan of providing a covered shed in which to water cattle is better than the open yard, but is a long way behind that of the individual bucket.

Frontenac Co., Ont.

G. E. W.

Factory Dairying in the U. S.

Two very interesting maps have recently been issued by the Dairy Division of the U. S. Department of Agriculture, illustrating the location and distribution of creameries and cheese factories throughout the different States of the Union. From these, the following figures have been compiled, which may be of interest to Canadian dairymen, as an indication of the extent to which factory dairying has been developed during the past few decades:

DISTRIBUTION BY STATES.

(First Ten.)

Creameries—1, Wisconsin, 1,000; 2, Minnesota, 838; 3, New York, 744; 4, Iowa, 592; 5, Pennsylvania, 461; 6, Michigan, 309; 7, California, 252; 8, Illinois, 247; 9, Washington, 245; 10, Ohio, 196.

Cheese Factories—1, Wisconsin, 1,784; 2, New York, 917; 3, Michigan, 235; 4, Ohio, 230; 5, California, 158; 6, Pennsylvania, 116; 7, Minnesota, 80; 8, Illinois, 68; 9, Oregon, 66; 10, Vermont, 49.

Total number of creameries, 6,235.

Total number of cheese factories, 3,846.

T. H. L.

APIARY.

Elementary Instruction in Bee-keeping.—I.

BENEFITS OF BEEKEEPING.

Far less interest than should be, and was at one time, is at the present day taken in beekeeping by farmers generally. When one wants to produce tons of honey, going into beekeeping on a large scale, it requires a special inclination to the work, and a considerable investment of capital. There are not many so inclined, but on most farms could be kept a dozen or so colonies of bees, to furnish one of the most delicious sweets in the world. Honey will not be consumed by the average family in the quantities it deserves if it has to be purchased. Were each farmer to keep a few colonies to furnish honey for the table, there would be little need for purchasing cough medicines for the children, and fewer diseases, now so prevalent, due to an excessive consumption of sugar.

Unless only two or three colonies are kept, there will be a handsome profit from a small farm apiary. In fact, the profit per colony can be considerably more in small apiaries than when the colonies are numbered by the hundred. In my experience, it is more profitable than any other rural pursuit I know of to be run in connection with a general farm. It is not my intention to give the impression that beekeeping is all play and no work. There is a certain amount of work that has to be done, but, when the apiary is small, this need not interfere with the other general farm work.

To me, no other work is so fascinating as that done with the bees. I may come home from the field tired and hungry, when a walk in the apiary will be restful, and make me forget about the cravings of the "inner man," too, till reminded of the honey, with other things, waiting on the table, by another family member.

To furnish oneself with this delicious sweet, for taking the place of cheap, unhealthy sweetmeats, is of no small importance. Children will have sweets, you know, because it is a natural craving of their system.

Bees have a work of yet more importance to fulfil. I refer to the great aid they are in the proper fertilization of blossoms. Most varieties of fruit are benefited by the bees at blooming time. Indeed, some varieties of pears and other fruit trees, as well as vegetables, are almost wholly dependent on insects for proper fertilization of the flowers. I said insects, for other little winged creations will help in this important work. But they generally are far too few. Yet, when the orchards or clover fields are of considerable size, even two or three colonies of bees, with all of the other insects aiding in cross-fertilizing, will not be sufficient in numbers for efficient work.

I know that all of you have seen deformed apples, such as where one side was not well developed. It may not have occurred to you that this is due to incomplete fertilization of the flowers preceding such fruits. The seed vessel on the poorly-developed side of an apple will be found to contain but an abortive seed—"kisses," as young folk call them, when naming apples. Now, of course, this poor seed does no harm, but such imperfectly-developed fruit is lower in market value. It is said that as many distinct fertilizations as an apple has seed vessels are necessary for the perfect development of perfect fruit. It may be thought that the bees from Mr. So-and-So's apiary will visit one's orchard. Quite true, but the bees may be too far away, or insufficient in numbers, to do thorough work. Then, cold and rainy weather may leave the bees little time for working on the blossoms. Don't you see, if you have a few colonies right under the trees, or at least near the orchard, that the chance for efficient cross-fertilization of the flowers are much increased. Says Prof. H. L. Hutt, Horticulturist, of the Province of Ontario: "I have noted repeatedly, in various parts of the Province, that some of the most productive orchards have been those in which honeybees are kept, and there is no question, in my mind, but that it would pay fruit-growers well to keep a few hives of bees merely for the purpose of insuring fertilization of fruit blossoms."

Clovers and plants, and also shrubs and trees, are benefited by the bees in this way. A Canadian beekeeper once reported, through a bee journal, that the yield of a field of alsike clover much visited by bees was one-third more than of other fields on similar land and similar conditions, but not within the flight of many bees.

Many other such cases have been noticed by observing persons, but let me conclude by giving the advice to keep a few colonies for insuring better fertilization of fruit trees, the clover and other plants, and have the honey stored, as an addition for our labor of tending the bees.

F. A. STROSCHEIN.

Wisconsin.

GARDEN & ORCHARD.

The Lime-Sulphur Wash.

Not many years ago the lime-sulphur wash was used almost solely as a dip to destroy scaly and other pests on sheep and cattle. It is still used for this purpose. Almost by accident, it was discovered that it would destroy certain scale insects, among them the San Jose scale. This soon brought it into favor with fruit-growers. Its popularity, however, has been more than doubled of late years by the discovery, first, that it has much merit as a fungicide, and will control most of the worst orchard diseases; and second, that it can be made in such a way as to be stored, and used as a summer spray on apple and other orchard trees. As a result of this latter dis-

covery, it is quite possible that it will displace Bordeaux mixture for orchard purposes. This is largely because Bordeaux frequently injures the appearance of some varieties of apples by russeting them, whereas the lime-sulphur does not russet fruit. Bordeaux, however, is too good a fungicide to be given up. For potatoes, grapes, and a number of other plants, it is still invaluable.

orange crystals will gradually form, and make spraying impossible. As there is a good deal of sediment in the home-boiled lime-sulphur, it should be kept well agitated while spraying.

DEVICES FOR BOILING THE WASH.

No expensive outfit is required for boiling the above mixture. Some use a large iron kettle holding from 20 to 30 gallons. Fig. 1 shows one of these kettles.

Figure 2 shows a very cheap and satisfactory outfit used by many fruit-growers. It is usually made large enough to boil sufficient for two barrels at a time. It consists of a close-fitting 2-inch plank, about 6 feet long, 3 feet wide, and 14 inches deep. On the bottom of this is nailed with wire nails a flat sheet of galvanized iron, or of ordinary sheet-iron. This sheet should be slightly longer and broader than the outside of the frame, so that it can protect the wood better. The box, thus made, is placed upon a brick or stone foundation about 20 inches high, with one end open and the other closed, but having a stove-pipe inserted in it. Some support the bottom by iron cross-bars, but others simply take extra precautions to nail it very securely, and leave out the cross-bars. At the one end, a faucet or molasses gate of about 1 1/2 inches in diameter should be placed about one-third inch above the bottom of the pan, so that the liquid may be easily drawn off, without letting the coarser sediment out. The faucet may be indistinctly seen at the front right-hand corner of Figure 2.

Boiling by steam is somewhat more pleasant than by direct heat from the fire. Recognizing this, some fruit-growers purchase a small steam generator, costing about \$65, capable of boiling two barrels at a time. Others have clubbed together and got a threshing engine to do the work. One of these, of about 15 horse-power, can boil from 8 to 10 barrels at a time (see Fig. 3).

Figure 4 shows an even larger boiling plant. The engine here is about 20 horse-power, and each tank holds several 40-gallon barrels.

Note 1.—When steam is used, care should be taken to see that the boiling is genuinely vigorous, and that the liquid dashes well up in the barrel. The steam itself passing into the water makes a noise which is often mistaken for boiling, and, consequently, poor mixtures are often made.

Note 2.—It is not safe to go by the color in boiling, as different kinds of lime sometimes give different shades of color, due to impurities that may be present. The only safe rule is to boil vigorously for one hour, or at least 45 minutes.

Note 3.—The formula, 20, 15, 40, is not infallible, but has given, on the whole, better results than any other. A larger amount of sulphur is sometimes used where it is desired to make a very strong wash. Some use larger proportions of lime, but there is nothing to be gained by this.

2.—COMMERCIAL LIME-SULPHUR, OR FACTORY-MADE LIME-SULPHUR.

The commercial lime-sulphur is a very convenient form of the wash, and is meeting with much favor. It differs from the home-boiled, described above, chiefly in being much more concentrated, in containing a much higher proportion of sulphur than lime, and in the capacity to be stored without danger of crystallization or deterioration, so that it is always ready for use whenever required, whereas the home-boiled must be used the same day as it is boiled, or else reboiled to bring into solution the orange crystals that form when it gets cold. For spring use, one gallon of the commercial wash will usually make about 10 gallons of diluted spray, and for summer use on the foliage, about 30 gallons. In some cases the barrels contain considerable sediment. Some fruit-growers like to have this present, but Prof. Parrot, of Geneva, N. Y., has shown by a series of experiments that there is very little merit in the sediment, and that, therefore, the barrels are better without it. So far as efficiency goes, there is very little to choose between the home-boiled and the commercial as a spring wash; though the writer believes that the advantage is slightly in favor of the home-boiled, chiefly because it can be applied hot, because it seems to remain on the trees considerably longer, and because the trees sprayed with it soon become white, and show clearly how well the job has been done. The latter advantage can, of course, be secured by adding a few pounds, say, 6 to 10, of freshly-slaked lime to each barrel of diluted spray. Chemists tell us that the addition of lime in this way slightly weakens the wash, but not enough in-

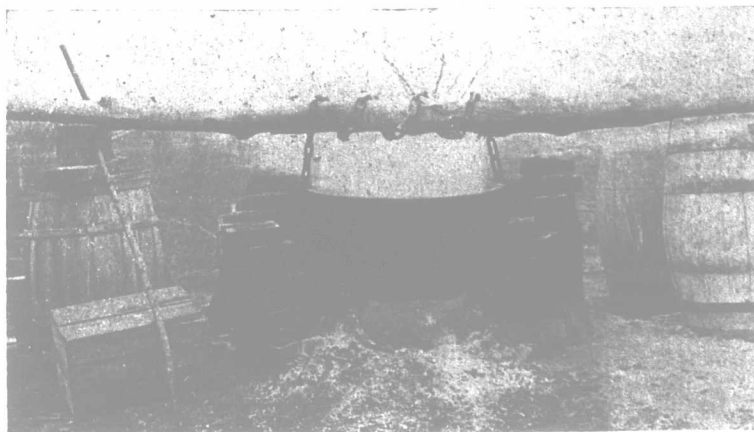


Fig. 1.—Kettle used for boiling lime-sulphur.

FORMS OF LIME-SULPHUR.

There are several forms of lime-sulphur that may be used: (1) Home-boiled, or the ordinary homemade, lime-sulphur, meant for use on trees only before the buds have burst. (2) Factory-made or commercial lime-sulphur, for use both on the dormant wood and after the foliage has appeared. The homemade, concentrated lime-sulphur may be considered a form of this wash. (3) Self-boiled lime-sulphur, a weak wash, with the lime and sulphur only imperfectly combined, and intended chiefly for use on the very tender foliage of the peach, where the other kinds of wash would sometimes injure the foliage, even when greatly diluted.

1.—HOMEMADE LIME-SULPHUR.

Formula: 20 lbs. fresh lime, 15 lbs. fine sulphur, 40 gals. water. To make the wash, place about

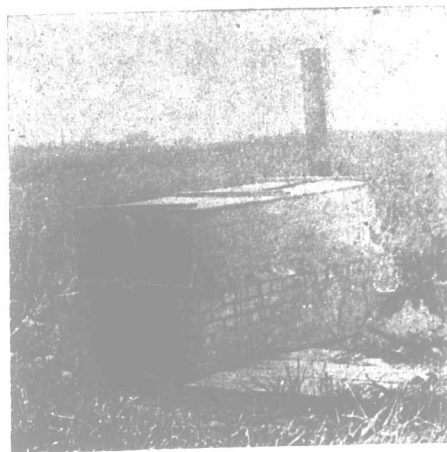


Fig. 2.—A convenient device for boiling lime-sulphur.

15 gallons of water in the kettle or other boiling outfit (more will be required if the bottom of the vessel is large); heat until almost boiling, then add the 20 pounds of lime, and, as soon as this has got well started to slake, add the sulphur, which should previously have been made into a thick paste by the addition of a little water. Boil vigorously for one hour, or at least 45 minutes, stirring well from time to time to help break up lumps and bring about more rapid and thorough combination. At the end of this time, dilute to 40 gallons with either hot or cold water, strain through a wire screen of about 20 meshes to the inch into the spray tank, and apply while still hot. If this mixture becomes cold, tiny

jury will be done to make any appreciable difference.

As for the cost, of the two kinds of washes, there is not a great deal of difference in most districts this year, because the two companies who manufacture the commercial product have reduced their prices greatly. In districts like Niagara, where sulphur can be obtained at \$1.50 per cwt., and lime for 25 cents a barrel, the home-boiled is considerably cheaper; but in other districts, where sulphur is much dearer, and lime is difficult to get, the commercial is just about as cheap, and, of course, is much more convenient, and does away with any unpleasantness in making the mixture. For summer use, the commercial wash has very largely taken possession of the field. It is probable, however, that in a few years each co-operative association will manufacture a concentrated wash of its own, similar in character to the commercial product. The writer recommends fruit-growers to experiment on a small scale with this home-made concentrated wash this year. Next year he hopes to have so much valuable data from many sources that further information will then be available, and, if it is found desirable, further directions can be given for making and storing the wash on a much larger scale.

HOW TO MAKE HOMEMADE CONCENTRATED LIME-SULPHUR.

Formula: 50 pounds good fresh lime (preferably Beachville lime, made at Beachville, Ont.), 100 pounds of a fine grade of sulphur, and 40 gallons of water, boiled vigorously for one hour. In making this, proceed in the same manner as described above for making the home-boiled. After it is made, this must not be left where it can freeze, and the air should be excluded by pouring oil for the depth of about one-eighth inch over the surface, or filling the barrels full and covering them tightly. Every 40 gallons of the above should stand diluting about six or seven times for spring use, and three times this much for summer use; but, to ascertain this definitely, an instrument called a hydrometer, with specific-gravity readings, should be used. To determine the number of times to dilute for spring use, divide the first two figures to the right of the 1 by 3. For instance, suppose the reading is 1,302, divide 30 by 3 = 10. This means every gallon of the concentrated mixture will make 10 gallons of diluted spray, or, in other words, should have 9 gallons of water added to it. If the reading were 1,283, divide 28 by 3 = 9 and a fraction. The fraction may be disregarded, and then we see that one gallon of this strength is strong enough for 9 gallons of diluted spray; i. e., 8 gallons of water may be added to each gallon of the concentrated mixture.

For summer use, the first two figures after the 1 give approximately the strength. For example, in the first case the reading was 1,302; here, 30 is our number; i. e., each gallon may be diluted with water to 30 gallons for use on the foliage, and, in the case of the second reading, to 28 gallons. Hydrometers of the desirable kind, with specific-gravity readings, may be purchased from at least two firms. They can be used in the same way to test the commercial product.

The writer does not advise anyone to make the concentrated wash this year in large quantities, but merely to experiment with a barrel or so of it on some part of the orchard.

3—THE SELF-BOILED LIME-SULPHUR.

This wash, as said above, is meant chiefly for use on the tender foliage of the peach to keep off brown rot, peach scab, and peach mildew. It may, however, be used as a summer spray for apple scab, and for the diseases of the plum and cherry, but it is not so popular for these as the commercial lime-sulphur.

The proportions used for peach foliage are usually 8 pounds fresh lime, 8 pounds sulphur, and 40 gallons of water. Prof. Wm. Scott, of Washington, D. C., who has brought the wash into prominence, gives the following directions for preparing it:

"The mixture can be best prepared in rather large quantities, say 24 pounds, or even 48 pounds, at a time, so as to get enough heat to produce a violent boiling for a few minutes. Place the lime in a barrel (the writer finds a half-barrel more satisfactory), and pour enough water (about 3½ gals. to 24 pounds lime) to start it slaking, and to keep the sulphur off the bottom of the barrel. Then add the sulphur, which should first be worked through a sieve to break up the lumps, and finally enough water to slake the lime into a paste. Considerable stirring is necessary to prevent caking on the bottom. After the violent boiling which accompanies the slaking of the lime is over, the mixture should be diluted, ready for spraying, or, at least enough cold water added to stop the cooking. Five to fifteen minutes are required for the process, according to whether the lime is quick-acting or sluggish. Only a small percentage of the sulphur—enough to improve the adhesiveness of the mixture goes into solution; but, if the hot mass is allowed to remain as a thick paste, the sulphur continues to unite with the lime, and at the end of thirty or

forty minutes, enough of the reddish liquid is produced to burn peach foliage, and even apple foliage, in some cases. Hence the necessity for cooling the mixture as soon as the lime is well slaked."

If this wash is going to be used on apple foliage, it should be made with hot water, instead of cold. For stirring, a hoe will be found most convenient. With this, once slaking has well begun, lift the lime merely a little distance from the bottom, to let the water down, without interfering with the slaking.

As there is much sediment in the mixture, it will strain much more easily if diluted to a considerable extent first. The agitator should be kept going while the spraying is being done, and only a coarse nozzle of the disk type should be used.

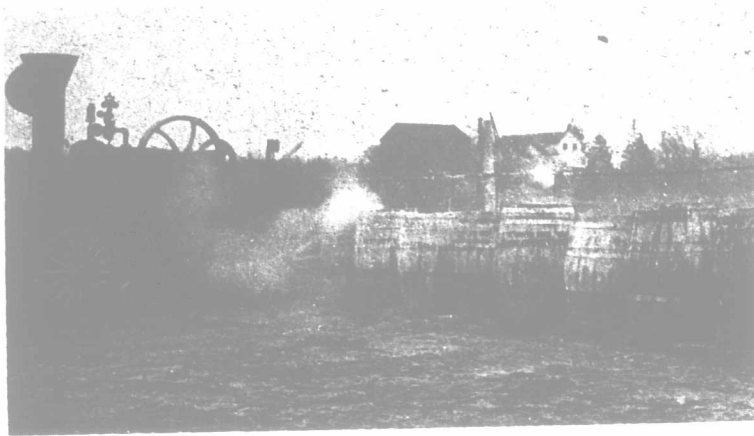


Fig. 3.—Threshing Engine used for boiling lime-sulphur.

THE USE OF ARSENICALS OR POISONS WITH LIME-SULPHUR.

With the self-boiled lime-sulphur, Paris green, arsenate of lead or arsenite of lime may be used with safety on most foliage, though we should prefer not to use any of them with it on the peach, but to use arsenate of lead alone with water if a poison is necessary, on account of the plum curculio.

With the home-boiled or ordinary homemade lime-sulphur, a poison is seldom used, because this spray is put on before the buds have burst, and a poison would be useless, except for one or two insects, like bud-moth, which can be fairly well controlled by the next spraying before the blossoms burst. With commercial lime-sulphur, Paris green should not be used, as it sometimes burns the foliage. Arsenate of lead, however, has been found to be safe, and may be used in the same way as with Bordeaux. But even with arsenate of lead, chemists tell us that a change takes



Fig. 4.—Outfit for boiling lime-sulphur in large quantities.

place which alters this compound considerably, and probably lessens its adhesive character, without, however, destroying its poisoning power. On account of this change, many are advocating the use of arsenite of lime, a much cheaper poison, and quite effective. The only reason the writer has not recommended this poison in the previous articles is the fear of confusing many of his readers, and the desire to do considerable more experimenting with it on various kinds of foliage, at various strengths, this coming season. There is, of course, much danger in recommending arsenite of lime to anybody who is careless, because it is a home-prepared mixture, and the very deadly white arsenic from which the poison is obtained might easily be mistaken for cane sugar or flour. Therefore, in preparing arsenite of lime, take every care to label the white arsenic

"poison," and to put the same label on every barrel and vessel used. Also, keep the barrel of stock solution where there is no danger of cattle or horses getting access to it.

HOW TO MAKE ARSENITE OF LIME.

Take 1 pound white arsenic and 1 pound soda crystals (sodium carbonate), and boil, with stirring, in 1 gallon of water, until the white arsenic is all dissolved. This takes about 15 minutes. Then add about two pounds of the fresh lime to the boiling water, and, when this is thoroughly slaked, remove from the flame, and add water to make up for whatever has evaporated, so that we shall have exactly one gallon. If this is thoroughly stirred, every quart will contain 4 ounces of white arsenic, which is about the equivalent of 2 pounds arsenate of lead, or of one-half pound of Paris green, and is strong enough for every forty gallons of spray mixture.

As much arsenite of lime as will be required for the whole season may be made up and stored, but care must be taken to preserve the above proportion of water to the other ingredients, and to stir the mixture well each time before taking out what is required. Keep well covered to prevent evaporation.

Note.—The sal soda is used simply to dissolve the white arsenic, so that it will more readily combine with the lime to make the arsenite of lime.

L. CAESAR.

O. A. C., Guelph.

Experiences with Potatoes.

Extracts from paper read before the Canadian Seed-growers' Association, by W. H. Taylor, St. Giles, Que.

I have been able to devote but few hours to study other than the study of plant-life and soil culture, a passion for which I inherited from my mother, a native of the County of Kent (The Garden of England). I received my best instructions from a gardener at the age of seven years. Having come to Canada with my parents, years ago, I at length bought a farm in St. Giles, Que. Being convinced, from what I had seen in England, and on the best-cultivated farms here in Canada, and from reading of farming in other countries, that hoed crops, especially root crops, were the best foundation of successful farming, I applied myself to this more particularly, and potatoes naturally obtained the most attention. Potatoes having been for the last fifty years very liable to disease—our first experience being the loss of our entire crop of 200 bushels—my first care was to procure seed not liable to disease, or to produce it. Experience gained in another line led me to the conclusion that, while life is manifested in an infinity of forms, it is in all created things essentially the same. It follows that what is conducive to health and strength in animal life, shall be, under necessary modifications, conducive to vegetable life, and vice versa; accepting the theories of hereditary influence and evolution so far as to believe that all animal and vegetable life contains a germ capable of being developed and improved to an extent not yet conceived of; liable, also, to become disordered, diseased, I made use of my knowledge of animal life to prevent, if possible, potatoes becoming diseased, as, in all cases, prevention is better than cure.

Solar light and heat being acknowledged to be inimical to microbe life, I commenced by planting wide apart, and gained something, but not enough. I spread my manure broadcast, instead of in drills. Next, finding my neighbors harvested very small crops, very much diseased, and that they hilled up very high; and believing that they injured the roots, and consequently diminished the vitality by so doing, I planted on a level, and maintained it so, as far as frequent cultivation permitted. At the same time, to insure as much vitality as possible, I planted whole, and, taking advantage of hereditary influence, I gathered my seed in the fall, rejecting every tuber in every hill in which was a single diseased one. The result was such as I could logically expect, a very marked improvement was soon apparent. I commenced with the Snowball, a very handsome Nova Scotia potato, but very liable to rot, about 15 years ago. It is

now almost immune. It has, however, become too large, and I am now selecting much smaller seed, in order to bring it to a more suitable size for the table.

Another idea taken from human life was that all vegetable life must, to be of the greatest vitality, be entirely free to act according to its nature and requirements. No corset! Therefore, the soil must never tighten around the stems nor roots. This requires not only frequent cultivation during growth, but prenatal preparation by deep and thorough pulverization of the matrix (soil). Now, how do I carry out in practice my theory?

I take a crop of oats on first breaking the sod, after which manure slightly, and take a crop of buckwheat; the next spring (the third) spread what manure we can afford broadcast, plow it in and harrow down as well as I can, then make holes with a hoe (we never plant more than 8 or 9 bushels), and cover tightly to insure against frost and sunburn. As soon as visible, I go through with forked hoe and cultivator, and so on, as often as weeds or rain give me a hint. In the fall, I dig them by hand, and choose my seed right there, rejecting all hills in which even a single diseased tuber can be found.

The distance between rows, and between seed in the row, varies according to variety. My Taylor's Improved Snowball and Sensation require about 30 inches between rows, and 15 inches in the row. Kidney's Early Rose and Early Harvest not so much, say 24 inches and 12 inches. You naturally want to know why I sow buckwheat before potatoes. First, buckwheat will smother almost any weed, and will reduce the most stubborn soil to friability; second, it shells out a great deal in harvesting, and springs up in the spring, and forces me to cultivate, which, perhaps, I might neglect otherwise, and its roots and stems serve to keep the soil open to the influence of rain and sun, so that it never bakes. I make it a rule to wait until the ground is fairly warm before planting, for if they do not come up quickly, they languish nearly all summer.

In my opinion, 2 inches in diameter, minimum size, for seed tubers, is too large, tending to give tubers too large for the table. I find it better, as regards number of marketable potatoes per acre, to use only quite medium size, say 1½ to at most 2½ inches, and the yield is just as good, and quality better. It goes without saying that, when necessary, I use Paris green; also, commercial fertilizers. My report the past season shows a yield from field of 500 bushels to the acre, and almost no rot.

S. D. Dawson and C. W. Baker, of Middlesex Co., Ont., organizers for the Ontario Vegetable-growers' Association, have recently returned from a trip through Eastern Ontario. They organized a branch at Brantford before going east, and at Berlin and Stratford when returning. They had marked success in the Counties of Lennox and Addington, Hastings, Prince Edward, and Durham.

A very complete treatise on pear or twig blight has been issued in Bulletin 176, by the O. A. C., Guelph, prepared by D. H. Jones, Lecturer in Bacteriology, there. This disease is widespread, and seems to be increasing, but can be controlled, if proper means are used. A review will appear next week.

POULTRY.

Good Eggs and Bad.

By John A. Gunn, of Gunns Limited.

Upon the arrival of eggs at our warehouse, they are immediately placed in the hands of expert graders. If the average loss is heavy, the buying price is reduced, and, consequently, the farmer who is delivering good fresh eggs loses as a result of the farmer who delivers bad eggs. We divide the eggs into a number of grades, as follows: Selects, which consist of sound, good-sized fresh, reasonably clean eggs; No. 1, sound, under-sized, shrunken, stained eggs; No. 2, shrunken, dirty, stained, washed or salted eggs; No. 3, cracked, gallon eggs; No. 4, rots, total loss.

The ideal egg is one that weighs about one and one-half pounds to the dozen. This is the standard size for export, and, generally speaking, meets all conditions.

The grades referred to are distinguished by candling. An expert takes an egg, and, turning it, can immediately tell the exact condition. An absolutely fresh egg, when held before the candle, is clear, and only the dull outline of the yolk is visible; there is little or no air-cell visible at the large end. Any egg other than that which is not absolutely fresh shows a clear space at the large end. The air-cell grows larger as the egg grows older; this is caused by the evaporation of the water content of the egg. If a dark spot is noticed, it is either a rot or a developing germ.

A white streak in the shell shows that the shell is cracked. Thus, we grade our eggs into the fresh, stale, cracked and rotten classes.

There are three big losses in eggs: losses from cracked eggs, losses from held eggs, and losses from rotten eggs. The cracked eggs are usually caused in shipping, due to rough roads and handling. Held eggs are caused by the farmer or small dealer waiting for an advance in price. This, as I have already stated, is especially the case in the fall. The third loss, rotten eggs, is caused by various things. One big cause is the heat of summer; one hour's direct rays of the sun will put an egg out of condition, particularly on hot days. Another cause is by hens stealing nests, and the eggs not being gathered until they have spoiled; carelessness on the part of the farmer is responsible for a share of the losses. He gathers his eggs at any time that suits his convenience, puts them in any place, without any thought of the future, and takes them to town whenever it pleases him. Thus, the eggs go through a process of heating and cooling which causes disintegration to take place rapidly.

Patrons of those who advertise eggs for hatching sometimes expect too much, and do too little to insure success. The best eggs in the world may not hatch a large percentage of vigorous chicks if unskillfully handled. Much depends upon the customer. After some troublesome experience in guaranteeing percentage of hatchability, one advertiser has adopted this rule:

"We cannot guarantee the number of chicks that will hatch from a setting of eggs, as we have no control over the hens or machines that may be used for incubating purposes. We send out eggs that are not more than ten days old, usually the day they are laid. The eggs are carefully packed, and should give a fair hatch. We expect to get from eight to ten chicks from a setting; some purchasers in previous years have done better, and some worse.

"In all varieties of Wyandottes, there are usually a few single-combed chicks, and Orpington chicks frequently have some feathers or down on their shanks when hatched."

THE FARM BULLETIN.

Equal Rights.

Editor "The Farmer's Advocate":

I was greatly interested in Clark Hamilton's write-up, entitled, "Voice from a Producer." He has the idea of the cost of living down as fine as he has the training of colts, for which I feel grateful for having a chance to read. I will not attempt to improve on his ideas; only agree with him that the farmer is not getting more than his rights. I lived in the city long enough to know that if the average farmer spent as much in amusements, such as theatres, sports, and up-to-date dress for the different occasions, as some of our city friends do, he would be bankrupt in a very short time. I have been told by city folk that it costs the farmer practically nothing to live. It doesn't eh? Let them try it!

I am sorry to think of the difference in prices between the producer and the consumer, but I suppose it cannot be helped at present. The farmer has his losses, and plenty of them, as well as his gains, still he plods on, trying to feed the great multitude for a very small per cent. on capital invested. They say, Why does he do it? Because it is a noble work—I think, the noblest of all occupations. As Mr. Hamilton says, it requires or demands a high order of intelligence, and much knowledge. Generally speaking, the farmer is aiming to improve his stock, his land, and the general appearance of his farm, and trying to work it out to a profit, thereby improving his country, his reputation, and the quality of the consumer's necessities. With all the advancement, surely the farmer deserves a little credit and remuneration for his labor, and to be looked upon as one deserving respect and equal rights.

Wellington Co., Ont. W. M.

Sixteen pupils were registered in the month's course in Agriculture in the Collingwood Collegiate Institute, held from February 15th to March 15th. Practically all of these pupils stayed through the whole course, though occasionally there would be a couple away. The attendance would average fourteen, which was a good average, considering that Saturday was one of the regular days of the course. It was worked up by personal effort. The students seemed to be very much interested in the work, and statements of their appreciation have been given by the students to many disinterested parties in the neighborhood.

A. McMeans, of the Horticultural Department of the Ontario Agricultural College, has accepted an offer to go to the North Dakota Agricultural College and Experiment Station as Assistant Agriculturist, at a considerable increase in salary. He leaves Guelph April 1st.

Systematic Accounting Needed.

Editor "The Farmer's Advocate":

I read with interest, in your issue of February 24th, the letter, "The Factory on the Farm," and as I have but recently moved from the factory to the farm, I might be allowed to add a little to the letter by H.

The most important change in factory management in recent years is in the adoption of systematic accounting; that is, getting at the details of all kinds of cost and expenses. When this system was adopted, it was found, in many cases, even when a business was paying, that there were parts of it not paying, which were being carried by the paying parts; or, where a variety of goods were made, some paid, others did not. There were leakages that had not been found out; the general results were all right, and that had been thought sufficient. Then, an era of bitter competition arose, and the margin of profit became very small, and a closer examination of business led to this systematic accounting.

Now, so far as I have been able to observe, this is just where most farmers are lacking; in fact, very few keep any proper account of their business at all.

When I was looking for a farm, I naturally wanted to know the cost of running it, and the net income. I found this very difficult to get at. Scarcely one had any details to give me. The gross receipts was about all I was able to obtain, and even that was not very exact.

Of course, they know whether they are making any headway or not, but they do not know where their profits are derived from in any reasonably exact way. They grow a variety of grains or fruit—it makes no difference which—but have no account of cost of production per acre, and income from same. They have a stock of horses, cattle, pigs and poultry. At the end of the season their feed is gone, and they may have added to the balance in the bank, but which of their stock contributed to that balance, and which kept it from being larger, they do not know.

Your correspondent mentioned poultry. Most farmers fail in this line to make ends meet, in most cases because they do not attend to them properly. But even when they do attend to them, how often are they feeding old hens that do not pay, never observing that it is from the pullets and young hens that the eggs come. I took over a stock of poultry with the farm I bought, and while last month I got a hundred per cent. profit on the outlay for feed from the eggs obtained, there were ten hens that never contributed a cent. towards payment of their feed. Had their heads been off, the profit would have been 140 per cent., instead of 100 per cent., and so it is in other lines.

Your correspondent speaks of making farm life attractive, and this detailed knowledge of a business always makes it more interesting; it becomes a constant study, and if the young man on the farm will go a little further, and try to understand the laws that are at work in the growing plant; how, while he may fertilize and cultivate, that it is a Higher Power that alone gives the increase, and that he is in very truth a fellow-worker with that Higher Power, then will he find it still more attractive, and he will have no desire to leave the farm for the city, but he will understand how it is that "Earth becomes God's temple, and every human heart shall join in one glad anthem, each happy in its part, and for him drudgery will have ceased to be."

Lincoln Co., Ont. F. F. F.

Reply to Mrs. Hopkins.

Editor "The Farmer's Advocate":

Having read the interesting letter of Mrs. W. E. Hopkins, which appeared in your issue of Feb. 24th, "Why Boys and Girls Leave the Farm," I beg to say that, while agreeing with some statements made therein, I differ from her in many.

The whole letter is a reflection upon the intelligence of the farmer and his family, as compared with that of a city-bred person. I am sorry that she could not have made even a few exceptions. From a farmer's point of view, it seems to have been written in a spirit of sharp criticism, rather than helpfulness. Now, we imagine Mrs. Hopkins may have been city-bred, but a person who has not attained to all her high ideals in life, and is now possibly living on a farm. She admits that a farmer settles his son on the farm, and his daughters "catch" a farmer, and thus settle down. These don't leave. We don't understand her logic. We know too many do leave. Oh, yes, the day has gone by when a farmer is ashamed of his calling. There are many young men who remain on the farm who have pleasant and happy homes.

They have an interest in its management, and a share in its profits. They work hard, to be sure, but have some time to improve the mind. The up-to-date farmer has good literature, and often music, in the home; they get the general news of the day in daily papers which they receive but a few hours later than city people; the telephone, a good team to drive; many have been

to an agricultural college. Where is the farmer's son who could not have a holiday any time he desired to take it? A trip to the city if he wished it?

A few in Missisquoi County have been "outside the county lines," but, then, Missisquoi is not as large as Russell. Generally, farmers have common politeness. They would not enter a street-car smoking a cigar, nor with a cigar smoking. A farmer would usually give up his seat to a lady, if he got no thanks, and he knows enough to raise his hat to a lady, especially an "auto lady." Of course, if a young man remains on the farm, he could not, perhaps, reach great fame—could not be a city alderman—but might represent the county in Parliament.

I think Mrs. Hopkins is mistaken about some of the conditions of farm life. The men and women she speaks of are not typical farmers, nor their wives and daughters. We can hardly conceive of a woman in Canada having lived to middle-age who has never seen a farmer raise his hat to a lady.

What Mrs. Hopkins says about our women we resent. We think they compare favorably with city women in intelligence and good taste. Why do many city men get their wives in the country? They know they are sure to get a good house-keeper. Ask the large department stores if they do not send good goods to the country, not as expensive as the city woman would buy, but neat and tasty, selected from the same catalogue as the city lady receives. She does not need to tramp around the market-square, but does much of her shopping in her own home (too much of it, the country merchant says). We don't see women climbing into a wagon in this part of the country, with a basket on each arm. She has a good sleigh or buggy to ride in when she goes to town. She is wife and mother, queen in the home, loved by her husband and children. We deny the statement that our women are estimated according to their working and child-bearing capacity.

Farmers have not much fault to find with city people generally. We have many friends there, and welcome them to our homes, even in July. We are benefited by association; some, of course, are riddles.

Now, Mrs. Hopkins may have written through pure kindness of heart, and we can stand very free criticism with good grace. We are to blame for everything these days—stupidity, stubbornness, selfishness, bearishness, impoliteness, high price of hogs, scarcity of eggs, race suicide, etc. I trust Mrs. Hopkins will pardon this attempt at self-defence, and trying to correct wrong impressions which she and many others have made in reference to farmers. I am going to stop now. I will ask what kind of co-operation Mrs. Hopkins would suggest among farmers in scattered neighborhoods, for fire protection. Will be glad to give it thought.

MISSISQUOI CO. FARMER.

P. Q.

Admit Outside Blood to French-Canadian Record.

At the annual meeting of the French-Canadian Horse-breeders' Association a proposition was submitted by Dr. J. G. Rutherford, Dominion Livestock Commissioner, on behalf of the Federal Government, and accepted by the Association. It is agreed that registered stallions of any of the following breeds will be accepted as Canadian stallions, and be registered as such in the French-Canadian National Studbook within the next five years, namely, Thoroughbreds, Morgans, Standardbreds, and Hackneys, provided that such animals conform to the requirements of the special commission of five appointed to inspect these French-Canadian stallions.

A stallion, to be acceptable, must present the strong characteristics and good points of the old French-Canadian horse, less his defects, and it is proposed to admit none but the very highest-class stallions.

The Association itself nominated four out of the five commissioners, Robert Ness, L. S. Lavallee, A. Denis, and Dr. J. A. Couture, the Government representative being Dr. J. G. Rutherford, or his representative. All these men are experienced horsemen, and deeply interested in the welfare and restoration of the sturdy French-Canadian horse, which gives assurance that the work of selection will be thoroughly done.

It seems that, while the special shows of French-Canadian horse stock, held in recent years at St. Hyacinthe and St. John's, Que., have brought out many mares of fine type, there were scarcely any stallions which would compare with the best of this breed to be seen in the early sixties. Hence this move, which will enable individual breeders to bring into the breed record approved stallions of the breeds mentioned. It is reported that the Association will probably select one of the four breeds mentioned, the selection to be made before any horses are examined.

Remunerative prices for grain, horses, cattle, and even sheep, are brightening the English farmer's horizon. The demand for good farms is said to be keen, with few of them changing tenants.

The Tariff Difficulty.

The possibility of a tariff war between the United States and Canada arose out of the passage by Congress last year of what is known as the Payne-Aldrich tariff bill. Under the provisions of this bill, a maximum tariff of 25 per cent., ad valorem, additional, was to be imposed on the products of those countries which in the judgment of the President of the United States, discriminated against American exports, as compared with those of other countries. Though it was realized by Canadians that the imposition of this extra duty would be calamitous if applied against Canadian products, it was felt that the responsibility was not ours. It was not believed that the British preference could justly be classed as unduly discriminating against the United States. The special treaty with France, begun previously, was completed since the passage of the United States bill, despite a few slight protests. Improved commercial relations with Germany have also since been entered into. On the whole, the Government has been sustained by Canadians in its attitude of conscious rectitude towards the United States. As the time approached for the automatic application of the maximum tariff (April 1st), anxiety, especially on the American side, grew. Messrs. Pepper and Emery were sent from Washington on a friendly tariff mission to Ottawa, and good-feeling, if nothing more, resulted from their visit. Later on, President Taft invited Hon. W. S. Fielding to a conference at Albany, and, though nothing definite was announced, the impression grew that a peaceful settlement was possible. A very friendly and conciliatory address to Canadians by President Taft was a notable feature of the negotiations. Since then, representations from many U. S. business men, in favor of a continuance of present relations, have been pouring in to the President. Last week, Hon. Messrs. Fielding and Graham went to Washington, and another conference has been held. The announcement is now definitely made, as we go to press, that there will be no tariff war. The President is justified, in response to some tariff concessions by Canada, in declaring minimum schedules in force.

A Warning to Buyers of Seed.

Instances have already come to light this spring of certain dealers offering so-called "pedigreed" seed for sale, when such seed is of very doubtful quality, and of uncertain origin. Every spring we hear of cases where farmers have been induced to buy such seed, only to find that they have been duped. There is only one recognized bureau of registration of seed in Canada, and that bureau is located at the headquarters of the Canadian Seed-growers' Association, at Ottawa. To be eligible as "pedigreed" or registered seed, all seed must be grown according to the regulations and under the observation of the Association, and must be of a quality considered by the Executive to be entitled to public recognition. All registered seed offered for sale by members of the Association must be accompanied by a certificate of registration. Buyers who desire registered seed should insist that these certificates accompany such seed; otherwise, they are leaving themselves open to the trickery of the seed sharp.

It is only fair to add, in conclusion, however, that certain firms of repute offer seed designated as pedigreed seed, which is of undoubted quality. Our remarks, therefore, are not intended to apply to such as these.

L. H. NEWMAN,

Secretary Canadian Seed-growers' Association.

Early Seeding.

Oats were sown on a farm near Dorchester Station, Ont., on March 24th, the land working in excellent condition. We should like to have post-card reports of the earliest seeding this season from other localities.

The Agricultural College at Truro, N. S., appreciating the influence of ministers in promoting material and intellectual progress, as well as spiritual welfare, is inviting theological students of the various denominational colleges to visit the institution and get an insight into scientific agriculture. On March 24th, the student body of the Presbyterian Theological College, Pine Hill, Halifax, accompanied by Principal McKinnon and several of the staff, were the guests of the Agricultural College. So much interested were they in what they saw and heard, that several hinted that had they known as much when choosing their vocation, they might have selected agriculture instead of theology.

The fourth annual National Corn Exposition will be held at Columbus, Ohio, January 30th to Feb. 11th, 1911. It is expected that at least six or seven of the splendid brick buildings of the Ohio State Fair Grounds will be required to house the features of the show, two being required for exhibits alone.

Working for Their Fathers' Boots.

Editor "The Farmer's Advocate":

My husband has taken "The Farmer's Advocate" for many years, and I do not think there has been anything of more interest to the farmer's wife than the subject, "Why boys and girls leave the farm." Mrs. Hopkins did endeavor to tell us, but, to my idea, ran off her subject. Perhaps it was for lack of a boy of her own; perhaps, by the time she has a son, she will be able to explain the matter, or at least give us a good reason. I do not pretend to be anything of a writer, but feel quite sure I can in simple words tell the reason why boys leave, and I guess it's pretty much the same with the girls. If fathers would for a few moments place themselves in their sons' position, the mystery would soon be solved. Many sons work just as hard as, if not harder, than a hired man, who receives not only stated wages, but certain holidays, and certain hours to work, etc. Now, what do most sons get? A dollar, perhaps two, once in a while, for every ten or twenty of the hired man's; hardly enough clothes, to say nothing of lack of education; and if they seem dissatisfied, or ask more, this is the answer. Why should you expect more? Won't you get the farm when I am dead? Surely that ought to be sufficient. The father forgets he may outlive his sons, and it is now they want a little for encouragement, if nothing else. Again, if the father gets a good offer for the farm, he takes it, and the boys have to turn out, after all, without anything for all their hard work. Now, those boys can't go out with their young friends. Why? First, for want of decent clothes; second, pocket-money. It is not always their manner that makes them feel awkward. I venture to say there are just as well-mannered boys on the farm as in any city home, and many better-behaved, and there is no reason why they should not be just as well dressed, if their parents would only give them what they are entitled to in return for the work they do. What is the result of it? They plod along, half-hearted, losing all interest in the farm and everything about it, and long for the time when they can earn money as other men do, and have something to call their own, at last grow discouraged, and off they go. Yet no one seems to grasp the true reason "why boys leave the farm"; they lay it to some other cause far from the truth. Many boys who love country life shut themselves up in city stores and offices to earn enough to buy or rent a farm of their own, when, if they were used only half well at home, would work with a good will, and enjoy it, too. It is not always to be on the same shelf as their city cousins. I am sure it is plain enough to be seen, if one would only visit a few farms, and have a chat with the boys "MOTHER."

Lime-Sulphur for Brown Rot.

For years, the peach brown-rot has been recognized as a most destructive disease of stone fruits. This is a fungous disease, and it is widespread, and very destructive to the peach crop. The loss which it inflicts on peach-growers will easily average \$5,000,000 yearly. The loss to the peach crop of Georgia alone is estimated at \$1,000,000 a year.

Much work has been done with a view to discovering a satisfactory remedy for this trouble. Spraying with diluted Bordeaux mixture has been most commonly recommended, but its injury to the foliage has made it unsatisfactory, since the remedy must be applied during the growing season.

The peach scab (often called "black spot") is another disease which seriously affects the peach crop in all sections east of the Rocky Mountains, although not causing such serious losses as brown rot.

As the result of experimental work by the U. S. Department of Agriculture, a cheap and simple remedy for this disease has been found in the self-boiled lime-sulphur wash. This can be applied during the growing season, with very little danger of injuring the fruit or foliage, and it is very effective. Furthermore, by mixing arsenate of lead with the fungicide, the curculio can be destroyed at the same time.

The Department has just issued a bulletin describing the preparation and use of the remedy. This publication will be of great interest to peach-growers in all sections.

In the United States, cattle are the one class of food animals which have come anywhere near keeping pace in numbers with the growth of population. There has been an increase of 12,000,000 in the population in the last ten years, and a decrease of about 5,000,000 in the number of available food animals, according to the estimate of the Bureau of Statistics. While the supply of food animals has gone down 3 per cent., the value has increased 22 per cent. Food grains for animals have also increased very greatly in value, having gone up from 56 to 75 per cent.

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MARKETS.

Toronto.

LIVE STOCK.

On Monday, March 28th, receipts of live stock at West Toronto comprised 78 carloads, consisting of 1,639 cattle, 67 hogs, 106 sheep, 59 calves. Quality was generally good, and trade good. One load exporters' sold at \$7.60, but bulk of this class was held for Tuesday. Prime picked butchers', \$6.50 to \$6.75; loads of good, \$6.25 to \$6.50; medium, \$5.75 to \$6; common, \$5 to \$5.50; cows, \$3.50 to \$5.75; milkers, \$40 to \$70; calves, \$3 to \$8.50. Sheep—Ewes, \$5 to \$6.25; rams, \$4.50 to \$5.50; lambs, yearlings, \$8 to \$9; spring lambs, \$5 to \$10 each. Hogs, \$10, fed and watered, and \$9.75, f. o. b. cars at country points. The hog market was very firm, and looked like an advance of 15 cents per cwt.

REVIEW OF LAST WEEK'S MARKET.

The total receipts of live stock at the City and Union Stock-yards last week were:

| | City. | Union. | Total. |
|--------|-------|--------|--------|
| Cars | 142 | 157 | 299 |
| Cattle | 1,618 | 2,698 | 4,316 |
| Hogs | 3,879 | 782 | 4,661 |
| Sheep | 1,188 | 572 | 1,760 |
| Calves | 418 | 75 | 493 |
| Horses | 2 | 250 | 252 |

For the corresponding week of 1909, the total receipts were:

| | City. | Union. | Total. |
|--------|-------|--------|--------|
| Cars | 202 | 85 | 287 |
| Cattle | 3,240 | 1,212 | 4,452 |
| Hogs | 4,340 | 1,231 | 5,571 |
| Sheep | 732 | 141 | 873 |
| Calves | 320 | 93 | 413 |
| Horses | 1 | 200 | 201 |

The above figures show the following: That there was a total increase at the two yards over last year of 12 carloads, 887 sheep, 80 calves and 51 horses, and a decrease of 136 cattle and 910 hogs.

The receipts of cattle were moderate, and not nearly large enough to supply demand, especially in the export class. Nearly all of the leading American packing houses were either represented by buyers on the market, or had placed orders with Rice & Whaley, commission salesmen, at the Union Stock-yards. Competition was keen on Monday, and remained keen all the week.

There was an advance in cattle prices of from 25c. to 50c. per cwt. This was the biggest boost the market has received this year in one week. The impression prevails that a shortage in cattle is about to develop, and the air is full of bullish sentiment. Cattle prices soared pretty high, the top reaching \$7.25 for one straight load of the best exporters, while five loads sold at \$7. A few Easter cattle sold at higher prices, one "baby-beef" steer, 12 months old, weighing 1,120 lbs., sold at \$9 per cwt., to the Harris Abattoir Co., for their Easter trade. In fact, all classes of live stock were higher, with the exception of hogs.

Exporters.—On Monday, Geo. Campbell bought for Morris & Co., 550 cattle, all for export, as follows: Steers, \$6 to \$6.75; heifers, \$5.75 to \$6.35; bulls, \$5 to \$5.75.

E. L. Woodward, on Tuesday, bought 348 steers, at \$6.25 to \$7.25. Several loads of export heifers sold at \$6.25 to \$6.50.

Butchers'.—Many buyers from outside points caused the market to be very strong, and export buyers having taken many cattle of butchers' weights, prices for them were firmer than at any time this season. Prime picked lots sold at \$6.25 to \$6.50; loads of good, \$6 to \$6.25; medium, \$5.50 to \$5.90; common, \$5 to \$5.40; cows, \$4 to \$5.25, and some choice cows as high as \$5.50 and \$5.75, butcher bulls, \$4 to \$5.25.

Milkers and Springers.—A moderate supply of milkers and springers sold generally at lower prices, ranging from \$30 to \$60 each, but choice cows will still bring choice prices.

Veal Calves.—A moderate supply sold at \$4 to \$10 per cwt. A few choice Easter calves sold at \$10 to \$12 per cwt.

Sheep and Lambs.—Receipts light; prices higher. Ewes, \$6 to \$6.50; rams, \$5 to \$6 per cwt.; lambs, \$8 to \$9 per cwt.

Hogs.—Prices have remained about steady, at our last quotations. Selects, fed and watered at the market, \$10, and \$9.75 f. o. b. cars at country points.

Horses.—At the Union Horse Exchange, a moderate amount of business was transacted. Manager Smith reported one shipment of four carloads of horses to the Northwest, and expected to make another of three cars on Friday. Many smaller lots were shipped to local points in Ontario, besides a thriving city trade. Prices were unchanged, as follows: A few extra-quality drafters, at \$250 to \$265; good drafters, \$190 to \$220; general-purpose, \$160 to \$200; expressers, \$150 to \$215; drivers, \$120 to \$200; serviceably sound, \$40 to \$85 each.

BREADSTUFFS.

Wheat.—No. 2 white winter, \$1.08½, outside; No. 2 mixed, \$1.08. Manitoba wheat—No. 1 northern, \$1.13; No. 2 northern, \$1.11, track, lake ports. Rye—67c. to 68c., outside. Peas—No. 2, 81c. to 82c., outside. Barley—No. 2, 54c. to 55c.; No. 3X, 53c.; No. 3, 49c., at outside points. Buckwheat—No. 2, 51½c., outside. Corn—American, No. 2 yellow, 71½c.; new, No. 3 yellow, 67½c. to 68c.; Canadian corn, 64c. to 65c. Oats—No. 2 white, 38c. to 38½c., outside, and 41c. to 42c., on track, Toronto. Flour—Ontario 90 per cent. patents, for export, \$4.10 to \$4.15, in buyers' sacks, outside. Manitoba patents, at Toronto, firsts, \$5.70; seconds, \$5.20; strong bakers', \$5.

HAY AND MILLFEED.

Hay.—Baled, in car lots, track, Toronto, \$15 to \$15.50 for No. 1; and \$14 to \$14.50 for No. 2.

Straw.—Baled, in car lots, track, Toronto, \$7.50 to \$8.

Bran.—Car lots, track, Toronto, in bags, \$23.50; shorts, \$1 to \$2 more.

COUNTRY PRODUCE.

Butter.—Choice-quality butter is firm. Creamery pound rolls, 29c. to 32c.; creamery solids, 27c. to 28c.; separator dairy, 27c. to 28c.; store lots, 22c. to 23c.

Eggs.—Receipts large; prices much easier, at 20c. to 21c. for case lots.

Cheese.—Market steady. Large, 13c.; twins, 13½c.

Potatoes.—Receipts larger than the demand; prices lower, at 40c. per bag for Ontario-grown, car lots, on track, Toronto; New Brunswick Delawares, 42c. to 45c.

Beans.—Demand good; prices steady, at \$1.90 to \$2.10 for primes, and \$2.15 to \$2.20 for hand-picked.

Honey.—Prices unchanged, at 10½c. for extracted, and \$2.50 to \$3 per dozen for combs, in sections.

Poultry.—Receipts light; prices very firm. Turkeys, 20c. to 25c.; chickens, 20c. to 23c.; fowl, 17c. to 18c. per lb.

HIDES AND WOOL.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 11½c.; No. 2 inspected steers and cows, 10½c.; No. 3 inspected steers, cows and bulls, 9½c.; country hides, 8½c. to 9c.

calf skins, 12c. to 14c.; horse hides, No. 1, \$2.75 to \$3.00; horse hair, per lb., 32c.; tallow, per lb., 5½c. to 6½c.; sheep skins, 90c. to \$1.10 each. Wool and raw-fur prices given on request.

SEED MARKET.

The following are the prices at which Toronto dealers are selling re-cleaned seed to farmers: Red clover, best, per bushel, \$10 to \$11; red clover, choice, \$8.50 to \$9.50 per bushel; alsike, best, per bushel, \$8.75 to \$9.50; alsike, choice, per bushel, \$8 to \$8.50; alsike, good, per bushel, \$6.50 to \$7.50; alfalfa, best, per bushel, \$12 to \$13; alfalfa, choice, \$10.50 to \$11.50; timothy, best, per bushel, \$3.25 to \$3.50; timothy, choice, \$2.75 to \$3.

FRUITS AND VEGETABLES.

Apples, the bulk of which are seconds and worse, are very plentiful, and cheaper, at \$1.00 to \$2.00, and \$2.50. No. 1 Spies are easy, at \$3.00 per barrel; onions, \$1.25 to \$1.35 per bag; carrots, 40c. to 50c. per bag; parsnips, bag, 65c. to 75c.; beets, bag, 55c. to 65c.; cabbage, per barrel, \$1.25 to \$1.50; turnips, \$6 to \$6.50 per ton.

Montreal.

Live Stock.—Owing to its being Easter week, the quality of the offerings last week was unusually good, and prices were higher. Many choice, stall-fed Ontario cattle were on the market. One animal weighed 2,300 lbs., and sold at 7½c. per lb., but the general run was from 6½c. to 7c. for choice stock. The highest price reported was 8c. per lb., this being for a rather light animal. Fine stock brought 6½c. to 6¾c., good bringing 5½c. to 6c.; medium, 4½c. to 5½c., and common down to 4c. Exporters were paying 5c. to 6½c. per lb. Some fine calves were disposed of at 9c. per lb., lower grades selling as low as 4c. per lb. The hog market was a feature, and prices sought higher levels. Sales were made as high as 10½c. per lb., for selects, weighed off cars. Spring lambs sold at \$6 to \$14 each, and sheep at 5½c. to 6c. per lb.

Horses.—There was a very fair demand for horses of the heavier type. There was some demand from outside for cheaper horses—about \$150 each—but the demand for the dearer animals was more marked. The market was as follows: Heavy draft horses, 1,500 to 1,700 lbs. each, \$225 to \$300; light draft, 1,400 to 1,500 lbs., \$180 to \$240 each; light animals, weighing from 1,000 to 1,100 lbs., \$100 to \$150 each; inferior, broken-down horses, \$50 to \$100 each, and choice saddle or carriage animals, \$350 to \$500 each.

Dressed Hogs and Provisions.—In sympathy with the advance in live hogs, dressed hogs sold at considerably more than a week previous, so that dressed hogs were never so dear in the history of the markets. Sales of abattoir-killed, select stock, were made at 14½c. to 14¾c. per lb.

Potatoes.—Market weak; supplies large. Green Mountain stock quoted at 35c., paid to shippers, cars, track, so that small quantities should be available at 50c. per bag of 90 lbs.

Apples.—Little or no change in the market for apples, auction prices being in the vicinity of \$1.75 to \$2.25 per barrel for No. 2 stock, and \$1.25 to \$1.50 for No. 3 stock.

Eggs.—The demand for Easter week naturally supported prices considerably, but the market declined, and fresh-gathered eggs sold last week at about 23c. to 24c. per dozen, wholesale, and on Monday, 28th, at 20c. to 21c., wholesale.

Butter.—Owing to the drought in New Zealand, supplies from that country to England have been light, the result being that there has been some demand for Canadian butter to supply the lack. The butter shipped has been mostly of a cheap grade. From British Columbia, however, inquiries for finest creamery have come, and some carloads were sent there. To New York, also, shipments have been made from here. Under the circumstances, it is not surprising that the market should have advanced. Fancy creamery scarce, and sold at 28c. per lb., and some fair stock at 26c. Dairy butter in good demand, at 23c., and fresh rolls at 24c. per lb.

Grain.—Market for oats steady, No. 2 Canadian Western oats, 44c. per bushel, carloads, in store; No. 3 oats, 43c.; No. 2 Ontario white oats, 42½c.; No. 3, one cent less; and No. 4, yet one cent less. No. 3 barley, 60c.; No. 4, 58c., and feed barley, 56c.

Flour.—Prices steady, at \$5.80 per barrel, in bags, for Manitoba first patents, and \$5.30 for seconds; strong bakers', \$5.10. Ontario winter-wheat patents, \$5.50 per barrel, and straight rollers, \$5.10 to \$5.25.

Feed.—Manitoba bran, \$22 per ton, and shorts, \$23. Ontario bran, \$22.50 to \$23, in bags; middlings, \$23.50 to \$24; pure grain mouille, \$31 to \$33, and mixed mouille, \$27 to \$29. Cotton-seed meal, \$39 to \$40 per ton, f. o. b., Montreal.

Hay.—Market steady at former prices.

Seeds.—Prices steady, at \$5 to \$7 per 100 lbs. for timothy, f. o. b., Montreal; \$18 to \$20 for red clover, and \$14 to \$17 for alsike. Alfalfa seed, 23c. to 25c. per lb., according to quantity.

Hides.—Prices higher all round. Dealers quoted 10½c., 11½c. and 12½c. per lb., for Nos. 3, 2 and 1 hides, Montreal, and sold at ½c. advance to tanners. Lamb skins opened at 10c. each, and sheep skins advanced to \$1 and \$1.25 per skin. Calf skins, 13c. and 15c.; horse hides, \$1.75 and \$2.50 each. Tallow, 1½c. to 5c. per lb., for rough, and 5c. to 6½c. for rendered.

Chicago.

Cattle.—Beeves, \$5.75 to \$8.70; Texas steers, \$5.10 to \$6.50; Western steers, \$5 to \$7; stockers and feeders, \$3.80 to \$6.80; cows and heifers, \$2.90 to \$7.25; calves, \$8.25 to \$8.75.

Hogs.—Light, \$10.50 to \$10.85; mixed, \$10.60 to \$10.95; heavy, \$10.65 to \$11; rough, \$10.65 to \$10.75; good to choice heavy, \$10.80 to \$11; pigs, \$9.75 to \$10.75; bulk of sales, \$10.80 to \$10.90.

Sheep and Lambs.—Native, \$5.60 to \$9.10; Western, \$5.80 to \$9.15; yearlings, \$8 to \$9.50; lambs, native, \$8.75 to \$10.50; Western, \$7.50 to \$10.60.

Buffalo.

Cattle.—Prime steers, \$7.75 to \$8.50.

Veals.—\$8 to \$11.

Hogs.—Heavy and mixed, \$11.20 to \$11.80; Yorkers, \$10.50 to \$11.20; pigs, \$10.85 to \$10.90; roughs, \$10.25 to \$10.40; dairies, \$10.85 to \$11.20.

Sheep and Lambs.—Lambs, \$7.25 to \$10.50; a few, \$10.60.

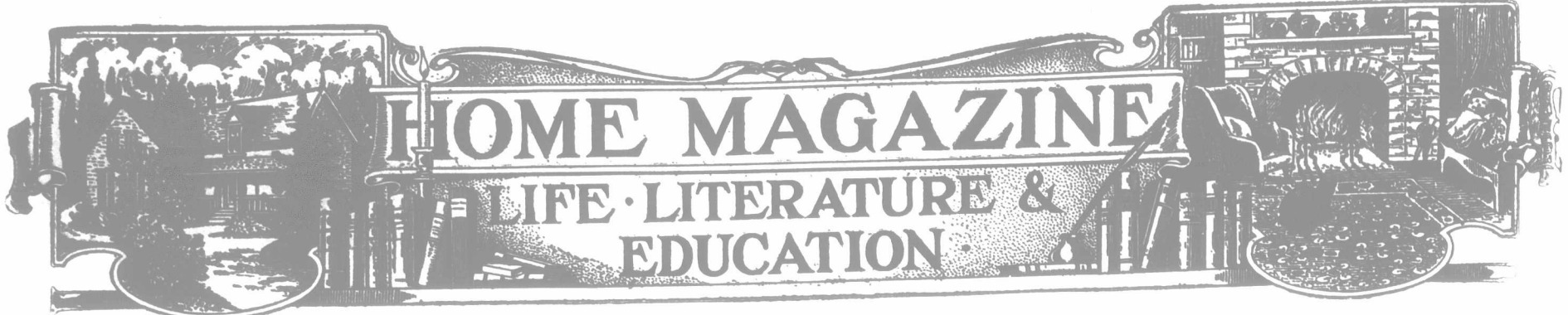
British Cattle Markets.

Liverpool and London cables quote live cattle (American) at 18½c. to 14½c., dressed weight; refrigerator beef, 11c. to 11½c. per pound.

GOSSIP.

The prize-list of the Canadian and Military Horse Show, to be held in the Armouries, Toronto, on April 26th to 30th, has been issued, and may be had by applying to the Secretary, W. J. Stark, 12 Wellington Street, Toronto. Three very liberal cash prizes are offered in each section, of nearly ninety classes of harness and saddle horses and ponies. Entries close April 14th. Entry forms and rules are included in the prize-list. The show promises to be a very interesting event.

The announcement in our advertising columns of the dispersion sale of the Shorthorn herd of T. L. Pardo & Son, to take place May 3rd, should attract the attention of breeders and all farmers who wish to improve their stock. The herd consists of 31 head, mostly young, and are not fitted for sale, but merely in breeding condition. At the head of the herd is Spring Valley Chancellor, a prizewinner at Toronto as a calf in 1906. He has developed into a very heavy-fleshed, thick, massive bull, and has proven a grand sire. While some of the animals are from Scotch families, others are from the English tribes, and nearly all are excellent milkers, that will pay their way at the pail, as well as producing first-class stock—on the whole, a very attractive lot. See the advertisement, note the date and send for catalogue, which furnishes full particulars.



A dog can sweat only through its tongue. As warm weather approaches, see that your dog's muzzle is long enough to allow it to loll its tongue. Otherwise, the animal is likely to become ill, just as you would if the pores of your skin were so closed as to prevent perspiration.

Rural schools may demonstrate their practical utility in the community by showing pupils how and encouraging them to test the seeds, to be sown on the farm, for germination. A plate partly filled with sand, covered with a cloth, on which the seeds are scattered, then moistened, and the seeds covered with another cloth, and a second plate turned upside down, makes a very good germinator. If this is kept in a warm room, as a schoolroom, good seeds will germinate in from 5 to 8 days. Teachers can do no better work than to show pupils how to make these tests, and encourage them to test seeds at home, and report results at school.

At the close of a recent term at Cornell University, 142 students were dropped for failure to secure a satisfactory standing. Of these, 36 were in civil engineering; arts and science, 31; Sibley College, 28; agriculture, 25; law, 17; architecture, 4; veterinary medicine, 1. Commenting on the annual failure of students, one professor says: "There are three reasons why a student fails, generally speaking: lack of preliminary training, lack of brain power, and loafing. Over 90 per cent. of the failures may safely be attributed to the last reason. If a man attends to business during the first few weeks of the term, the chances are ten to one that he will get the remainder of the term's work. He will have formed the habit of studying, and that is over three-quarters of the battle."

A British periodical has recently been giving some prominence to a discussion on the advisability or otherwise of city people repairing to the country to live, and the occasion has brought out several letters bearing captions such as these: "Why I Left My Country Cottage," "Back to Civilization," etc. Rabbits, it appeared, had eaten up the vegetables; mud had taken the gilt-edge off vernal showers; mail had come too slowly; the soil had proven indeed "stubborn." Perhaps a countryman who replies to these complaints comes nearest to the common sense of the matter when he says: "It all points to one conclusion, town for the town-bred, and country for the country-bred. The town-bred man is brought up to walk on hard, unyielding pavements, and to think of the sky in strips, and the exhaust of a motor-bus is as the breath of life to him. To the country-bred man all this is a foretaste of Hades. He loves and is accustomed to wide spaces of sunshine, and, if he is Irish, as is the present writer, the soft, wet west wind that closes in a winter evening. The two types have been brought up to see and feel differently, and when one lifts his face to the warm rain, the other puts up his umbrella, and hurries home."

Of course, there is occasionally the true country-lover born and brought up in the city, and the true city man born and brought up in the country. Each is rather likely, sooner or later, to drift into his proper

element. After all, it is well that the whole world has not the same tastes and likings. It takes all kinds to make the world go round.

Emory Hunt, President of Ohio Wesleyan University, writing in Rural Manhood of the necessity of keeping a strong religious influence in rural districts, pays a strong tribute to the country boy. "He is not less thoughtful," he says, "but very much more thoughtful, than the boy in the city. The boy in the city hears more noises, witnesses more spectacles, sees more people, is more familiar with brass-bands and fire-engines and street-cars, but does not for this reason think more. Rather, for these reasons, he is apt to think less. Philosophy was born, not in Athens, which was the metropolis and intellectual capital of Greece. Philosophy was born in the Greek colonies, far from the madding crowd. That is where the thinking is apt to be done. One of my teachers used to advise us, 'When you young preachers go to the city church take your best coat; when you go to the country church, take your best sermon.' The boy in the country requires quite as vital and strong intellectual leadership as the boy from the city."



Rural Schoolhouse, Cornell.

The Windrow.

The King is said to be in ill-health.

A seaweed from which a kind of cloth may be made, has been discovered in Australia.

Thomas Hardy has been elected president of the Incorporated Society of Authors, in succession to George Meredith.

Sir Edward Shackleton, the Antarctic explorer, is now on this continent. He will make a lecturing tour through the United States and Canada.

The sum of \$50,000 was recently paid by Otto Kahn, a New York banker, for the famous painting by Franz Hals, of the artist himself and his family.

Palmer Cox, creator of "The Brownies," has spent the winter at his home at Granby, P. Q. He is still turning out Brownies for American magazines, making his own drawings to illustrate the verses, or,

perhaps, one might better say, writing the verses to give point to the drawings.

The Rural Schoolhouse.

It seems too bad that we are compelled, so often, to go to the United States for suggestions. Yet, we can be cosmopolitan enough to give admiration where it is due, and sensible enough to improve ourselves by learning wherever we can. Unquestionably, there is much to admire, and much to learn from, in the United States, if a little to steer clear of. In architecture, particularly, the Americans are, in general, ahead of us, so that it is not surprising to find them taking the lead in improving the appearance and planning of the schools.

Two or three years ago, the College of Agriculture at Cornell University, which has done so much for agriculture and the farming people of this continent, built a small rural schoolhouse on the college grounds, to serve as a suggestion in school-house architecture, and to contain a real rural school, with which certain educational theories might be worked out. The accompanying illustration shows the exterior of this schoolhouse; the grounds, however, have

smooth, and decorated in simple gray-green for the walls, and pale yellow for ceiling. Particular attention was paid to the lighting, and the openings between schoolroom and work-room were fitted with glazed swing sash and folding doors, so that the rooms might be used either singly or together, as required.

In the bay-window shelves were fitted for plants, and all the spaces between doors and windows were filled with slate blackboards. A hot-air system was provided for heating, and a large veranda placed at the front has added much to the appearance of the building and the pleasure and comfort of the children.

Contrast this building with the uniformly oblong, prison-like structure which ordinarily gives the rural child its first ideas of education, and arrive at some conclusion as to which is the more likely to attract a child to school, and inspire him to learn, and know, and do.

School should not be to the child a dreary prison-house, with two bright spots in the day in the form of intermissions. It should be a home, and, more than that, a place of a thousand wonderful doorways opening to glimpses of things heretofore unknown to the child's small world. It should be a place of principles and ideals; a place where only gentle manners seem fitting, and where only high principle is tolerated. Environment cannot do everything to this end, but it can assist, and very materially.

The cost? That is always the rub in a rural section. Yet, surely a little variety of outline, a little originality, a little more beauty and comfort and convenience than are ordinarily seen in the rural schoolhouse, can be brought about with but little extra expense. The children are worth the extra thought and trouble; yes, and the extra expense too. They are the most valuable asset that the homes or the section can possess.

If you have already built an unusual or model schoolhouse in your neighborhood, we shall be pleased to have a photo of it for reproduction. Our first example has been taken from the United States. If there are others as good, or nearly as good, in Canada, we shall be pleased to hear of them, and to give due recognition of them in these pages. [Kindly address, "Home Department."]

Current Events

Mount Etna, Sicily, is in eruption.

Contracts for three warships for the Turkish navy have been placed with British firms.

The new Chinese Minister of War is planning a system of universal military service for the Chinese Empire.

An underground railway is to be built in Montreal, under St. James Street, from St. Lambert Hill to Victoria Square.

The Lords have decided that the right to sit in the Upper Chamber of the British Parliament should not follow from a peerage. This, the last of Lord Rosebery's resolutions

for reform passed by

German completed under Zeppelin passenger. They each, and rate of

Hope

Editor

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for reform of the House of Lords, passed by 175 votes to 17.

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Germany now owns a fleet of 14 completed airships, and 9 more are under construction. Two, of the Zeppelin type, are intended for the passenger and excursion business. They accommodate 30 to 40 persons each, and are built to travel at the rate of nearly 50 miles an hour.

Hope's Quiet Hour.

Editor "The Quiet Hour":

"Pure religion . . . is this: To visit the fatherless and widows in their affliction, and to keep himself unspotted from the world."—S. James I.: 27.

Such is the verse that came to me as I walked home—a little bit wearied—after two days' work getting in the widow's turnips and potatoes. It was my mother's verse, that she got me to repeat over and over again, and it has never been forgotten, although it is 65 years or more since I—a boy of 13—learnt it. Why did my mother request me to learn it? A young man from Scotland was ordained and came to Canada many years ago, starting in a Scotch settlement. They had no church—held services in a log house. After a few months, the log house could not hold the people. A church was built, and the young minister got a good bay horse. There were no buggies in those days, for there were too many stumps and stones. Twice a year he would call a meeting in some farm log house, when he would question them on the Bible and Catechism. But after a time it came before him that a good many men were dying from the hardships of clearing their land and chopping down the trees, leaving a widow and small children. Sometimes the man had incurred debts. Down would come the Hawk on the helpless widow, and would make a seizure. Sometimes men were killed while chopping trees. This happened on my father's place when I was a boy. A certain lad—aged 15—was sent with a message. As he stood before the mother of twelve children, she told him that it was her 75th birthday. He said, "A happy New Year to you, may you live to see another, and I to be here to greet you." For over fifteen years he never failed to visit her on her birthday, and always gave the same cheery salutation. He never took any gift, but maybe a peppermint—but she always looked for John on that day.

"Apples of gold in baskets of silver,"
SEVENTY-EIGHT AGAIN.

The Old Man's Soliloquy.

It's winter all around me now,
Outside the cold winds blow;
Inside old age's winter reigns,
My locks are like the snow.

The transient joys of long ago
To me no comforts bring,
I'm sitting here alone to-night
Awaiting for the spring.

For four-score years I've rested here
Upon this earthly ball;
With griefs and joys I've had my share,
And tasted of them all.

Death laid his hand on those I loved
And left behind his sting;
I've nothing left to keep me here,
Still I must wait for spring.

For always comes the spring,
With blossoms on the tree;
And when old age's winter's gone,
There will be spring for me.

Gray locks and wrinkles will be gone,
Robed in immortal bloom;
My spirit free can soar away,
Triumphant o'er the tomb.

But now my winter must be short,
In this cold world below;
I feel the harbinger of spring,
My pulse is beating slow.

Yet must I wait till God sees fit
The final hour to bring;
Then drop old age's winter garb
And greet eternal spring.

Why People Do Not Attend Church.

Some time ago, I saw a letter on the above in "The Farmer's Advocate." It gave me much serious thought, for the fact required no proof, but the why is a more difficult proposition. As far back as I can remember, I was taught to say my prayers on rising and retiring, to show proper reverence in the House of God, and to the minister; as soon as I was able to read, not only to read the Bible, but to commit large portions to memory. As the schools at that time were controlled by the church, by the time we left those scenes, I had nearly all the Prayer-book and a lot of the Bible packed away in my head, and a small percentage in my heart. At home, there was, as "Hope" recently said, a "church in the house." My grandmother, with whom I then lived, used to admonish my youthful uncles and myself to be truthful and honest, shun bad company, and keep holy the Lord's Day. There was no slipping out of attending church and Sunday school.

Fifty years ago, the people of Ontario were not as Canadian as they are to-day. The fathers and mothers of that day betrayed in their speech that the ocean di-

vided them from the land of their birth. The question was common, "What part of England (Scotland, Ireland, or Germany, as the case might be) did you come from?" Now, I venture to say, that the most of those people were (to some extent, at least) trained as above described, with such variations as Presbyterianism, Methodism, and Lutheranism, etc., would produce. Family worship, grace at meals, Bible reading, and regular attendance at church, were common to all, and were regarded as necessary as daily food. Even admitting that family discipline was sterner than necessary, and that a certain amount of formality was bound up in their religious exercises, it was, after all, productive of great good. Ministers in those days (with few exceptions) inspired respect. Their pastoral visits caused no alarm among the fowls, but did cause the young people to go about the house quietly and softly, and to answer the personal questions, and to listen to the pious counsels about their spiritual welfare, with reverence and respect; it meant a visit to young and old,

hired man and girl, ending with reading and prayer. That such pastoral visiting is rare at present needs no stating. Often the conversation has not even the flavoring of spirituality; the last party, or the coming one, the societies, the choir, etc., and, even if concluded with a prayer, the visit is flat and fruitless. Surely the King's messenger should comfort, admonish and reprove, surely his strongest vantage ground is where he can have "heart-to-heart" converse with the members of his flock. The lack of this personal work has much to do with "Why people do not attend church." To return to the family-worship question, and the religious training of children. Enter the homes of the grandchildren of those people above noted, they have finer homes, more comforts, and are better educated. It would be a startling revelation to the reader if we could give the correct percentage of homes in Ontario, many of them of church members, in which no family altar is erected, and in which no voice of praise or prayer is heard, many in which even a blessing is not asked at their well-spread tables, only when grandpa or the minister comes to visit.

Can we wonder that with such Godless

pleading, soul-convicting and converting message, is replaced by the brilliant essay, like the "sound of a pleasant instrument," it charms the ear, but it starves the soul. In the building dedicated to the worship of God are held church fairs, socials, etc., to fill the sails of the gospel ship.

Another reason which keeps many at home is because the church is the public showroom of style and fashion. People of sensitive and ambitious nature who cannot "keep up with the procession," keep off the route. If there could be a surpliced congregation, as well as a surpliced choir, it would open the way for many to come who now remain at home. The frigid atmosphere of the church is another reason "Why people do not attend church." I don't mean the heating of the building, but the lack of warmth and cordiality of the people. No one should expect to be made a pet of, but humanity appreciates recognition. Once more and I will close, though I have only touched the fringe of the matter. If I say that the continued prosperity of Ontario is a reason "Why people do not attend church" as formerly, I have touched the vital point of the whole question. Where is there a people so blessed with every temporal good, flowing down such a period of years uninterrupted and unbroken, as the people of this favored Province? If our gratitude welled forth in proportion to blessings received, each home would be a house of prayer and songs of praise would resound on every hand. Churches now half empty, would be filled to the doors, people would "enter into His gates with thanksgiving, and into His courts with praise, be thankful unto Him, and bless His Name." How sad that it is otherwise. Where private gratitude and recognition of Divine Love is lacking, there can be little public expression of it, for each one must bring, like the Magi, his gifts with him. Surely "it is time to break our fallow ground," to turn unto the Lord, He who has so richly blessed can also withhold, and we may, even here, yet be chastened for our vile ingratitude, and "in the day of adversity, consider." Trusting the reader has kept his patience during this too lengthy article, and thanking the editor for space.

F. ELLIOTT.

Richmond Hill, Ont.

The Beaver Circle.

[All children in second part and second books, will write for the Junior Beavers' Department. Those in third and fourth books, also those who have left school, or are in High School, between the ages of 11 and 15, inclusive, will write for Senior Beavers'. Kindly state class at school, or age, if you have left school, in each letter sent to the Beaver Circle.]

A Very Amateur Garden.

When Billy had a garden, he annexed the kitchen clock,
And after due investigation, I'm
Convinced that when he planted it he
didn't want to shock
His parents, but to raise a bed of
thyme.

And when he took the tool-chest of his
brother, handy Ray,
In which his awls and chisels Raymond
locked,
And covered it with half-a-foot or more
of garden clay,
I fancy he'd a notion he'd grow box.

On Billy's part 'twas stupid, that may
freely be confessed,
To take a playful schoolmate's merry
hint,
And to bury in a border all the coins
that he possessed;
Yet that was how he cultivated mint.

But when he asked his uncle, who has
trouble with his toes,
To let him pile some mould upon his
feet,
Why, that surely was the climax! But
from corn, one must suppose,
It was Billy's calculation to get wheat!
—Felix Leigh.



A Jolly Young Gardener.

A little lad in far-away Australia.

Mr. Thompson-Seton.

Dear Beavers,—Some of you have written us about reading some of Mr. Thompson-Seton's stories, "Wahb, the Bear," "Lobo, the Wolf," "Little Mollie Cottontail," and the rest of them.

Well, it may interest you to know that I heard Mr. Thompson-Seton himself lecture not long ago,—the very real, live man who wrote those wonderful stories. He is tall and well-built, looks just the sort of man who could stand any amount of trudging about through swamps and over mountains and plains, observing the animals he loves so well.

Do you know, I wish those old gallery seats could have been filled with you Beavers. Then you could have followed him, too, as he showed picture after picture in color, on the big screen, of the very animals he has written about,—most of them pictures photographed by himself, or drawn by himself from the life.

There was little Mollie Cottontail, photographed as she sat, without moving a hair, for two minutes, on top of a machine-box. And there was her Auntie Cottontail, dashing off at full speed through the brush, her little white flag up behind her as a signal to Baby Cottontail to follow out of danger. There, too, were the little skunk that Mr. Thompson-Seton kept as a pet in his back yard in Toronto, and also the little skunk's bit of difference with a meddlesome Tomcat. Last of all was a picture of the big moose that the lecturer shot twenty-five years ago in the Northern woods. And—do you know it?—after coming on the body of that moose, Mr. Thompson-Seton made up his mind that he would never again kill any harmless living creature. Needless to say, he has kept his word during all those years, and will as long as he lives. The wild animals are his friends, and, on his big estate, "Wyndygoul," at Coscob, Connecticut, he has many of them, ranging securely through the woods. One wonders if they do not know him when they see him coming, and if they do not say to one another in animal language, "Here is a man who will not hurt us!"

You should hear Mr. Thompson-Seton imitate the calls of the animals, too, and even the songs of the birds. At one time he has his audience laughing at the way in which he can "go like" a big cow moose; at the next he is warbling a whistle almost exactly like that of the white-throated sparrow, or of the winter wren. Do you think you could do that?

At another time, again he shows you the way by which his dog Ranger gives him information about things, and really he understands dog language better than anyone I ever saw.

Of course, we cannot all be Seton-Thompsons. We cannot all imitate animals, or lecture, or draw pictures, or write in the delightful way that he writes. But we can surely all learn a lesson from this wonderful man, and that is to "observe more closely than we do; to use our eyes and ears whenever we are in woods or fields, and so try to find out the life story of our animal and bird neighbors. If we do, we shall surely find life more full of interesting things than we had ever dreamed it could be.

Mr. Thompson-Seton was born at South Shields, Durham, Eng., on the 14th of August, 1860, so you see that he is fifty years old, although he does not look a day over forty. He came to Canada, however, at the age of five, lived in the backwoods until 1870, then went to Toronto to be educated, so you see, he is pretty much of a Canadian after all.

If you want to read any more of his books, here is a list from which to choose: "Wild Animals I Have Known," "Trail of the Sandhill Stag," "Biography of a Grizzly," "Lives of the Hunted," "Two Little Savages." . . . There are many others.

PUCK.

Making Friends of Wild Animals.

President Gates, formerly of Grinnell College, tells a story of his visit to a public park in Boston where numerous squirrels roamed at will in the trees. The squirrels were large gray animals, very tame, and would approach a stranger fearlessly if he proffered them something to eat.

"Why is it," asked President Gates of a policeman, as he stood watching the animals, "that boys do not kill these squirrels? I should think it would be almost impossible for you to keep them from injuring them."

The policeman pulled a peanut from his pocket and told President Gates to hold it in his hand. Mr. Gates did so, and presently a large gray squirrel ran up his leg and put on his arm. The policeman pulled his revolver from his pocket and handed it to President Gates, and said, "Now shoot him if you want to."

In telling of the incident, President Gates said that never in his life had he been so impressed with the wanton

cruelty in hunting animals. It had never occurred to him before that the reason animals were wild, was because they were hunted. If every boy set out with as much zeal to make friends of wild animals as he does with the ambition to kill them, the friendships with animals which the boy would form would open up a new world to him.—From "Our Dumb Animals."

Our Letter Box.

Dear Puck,—This is my first letter to the Beaver Circle. My brother and I have taken "The Farmer's Advocate" for two years, and like it very much. I have a pet colt called Jack. Its mother died before it was twenty-four hours old. It stands about thirteen hands in height. I have a dog named Rover. He is a very pretty dog, and likes to watch the cattle.

I wonder if any of the Beavers have read any of the books I have: "Black Beauty," "Jubilee Hall," "Beautiful Joe's Paradise," and "The Young Midshipman." I like animal stories better than any other books, such as "Lobo, Rag and Vixen," "Black Beauty," and "Beautiful Joe's Paradise."

JACK HOLTBY.

(Age 11, Class IV.)

Stanley Mills, Ont.

Dear Puck and Beavers,—I have read your letters in the Circle with much pleasure. My father has taken "The Farmer's Advocate" for a number of years, and I always look forward for the mail to come. I am in the Fourth book, and I am trying the Entrance next summer. We have a dog named Sandy. He has to wear a muzzle now, but he does not like it very well. I have about two miles to go to school. I live ten miles from Owen Sound, but I do not get there very often. I have read a number of books, and I like reading very much. We have a large library in our school. It contains about sixty books. I will close, wishing the Circle every success.

ETHEL ROBERTSON.

(Age 13, Class IV.)

Jackson, Ont.

Tell us how you got the books for the library, won't you, Ethel? Did you have to "raise" the money, or were the trustees good enough to supply it? You see, we are after "hints" for other schools.

Dear Puck,—I saw your letter in "The Farmer's Advocate." I am a farmer's son. I think city boys are not as much interested in farm work as country boys, for when they come to the farm they know very little about it, and also say they would sooner be back in the city. Most of them don't know a cant-hook from a mulley cow. I will tell you a story about a city boy that came to the farm: Once there was a city boy that came to the farm to his uncle's place. One day his uncle was going out to the bush to skid logs, and he forgot his cant-hook, and he said, "Johnny, will you go back and get me the cant-hook?" So Johnny ran away as fast as he could and came back driving a mulley cow. His uncle said, "Johnny, where is the cant-hook," and he said, "Here it is. It can't hook." So that shows how green the city boys are when they come to the farm.

NORMAN LAUGHLIN.
(Age 12, Class IV.)

Belfountain.

You made a mistake, Norman, in thinking that I meant all city boys. I referred particularly to only a few of them, those who belong to the Broadview Institute. After all, don't you think you could hardly expect a city boy to know much about a cant-hook? A city boy could hardly expect a country boy to know about everything in the city either, could he? How many things city boys and country boys would have to tell each other about, if they only went about it in the right way!

Riddles.

Which is the most dishonest of all vowels? Ans.—The letter "e," because it is in "debt."

Why is a pig the most wonderful animal in the barnyard? Ans.—Because it is first killed and then cured.—Sent by Minnie Gordon.

When are unruly children like corn-stalks? Ans.—When getting their ears pulled.

What crow is the most useful to men? Ans.—Crow-bar.—Sent by William Lodge.

What will make a slow horse fast? Tie it to a post.—Sent by Helen Kelly.

What stands on one leg with its head in its head? Ans.—A cabbage.—Sent by Ida Fleming.

Beaver Circle Notes.

Bertha E. Scott (age 13, Class IV.), Osnabrock Centre, Ont., also Marguerite Palmer (age 11, Class IV.), Thorndale, Ont., would like some girls of their age to correspond with them.

Dear Beavers, there are just about a hundred letters on hand, so you will not mind—will you—if your letter does not happen to be noticed this time? I am afraid, too, that I shall have to weed out all but the most interesting again.

The Ingle Nook.

[Rules for correspondents in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen-name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on. (4) Allow one month, in this department, for answers to questions to appear.]

Reply to "Anna."

Dear Dame Durden,—In reply to Anna's letter, in Feb. 17th "Advocate": First, I would thank her for her kind words for my letter; second, her request for information as to raising and cooking egg-plants. We have raised them for many years. The eggplant being a native of tropical America, is very hard to raise in our climate, and they will not do north of Toronto. The two best varieties for our climate are the New York Improved, a large purple variety, very productive, about six or eight eggs to each plant, and the Black Pekin, very good, but not so large as the other. The eggplant being a tropical plant, requires a high temperature to raise. Sow the seed about April 1st in a good hot-bed, with a steady bottom heat. Take good care by thinning or transplanting.



Camp in Algonquin Park.

Algonquin Park, Northern Ontario, is a fine place in which to study nature. It is against the law to kill any animal or bird in it.

until June 15th, then plant in the garden in very rich soil, sandy soil, 3 feet apart; then watch for the potato beetle, for they are very fond of the eggplant. We use Paris green the same as for potatoes.

We have three ways of cooking them: (1st) Peel, cut in half if not too big, or in slices about two inches thick, if they are large, and bake under a roast, like potatoes. (2) Parboil, cut in slices and fry in butter. (3rd) Parboil, cut in slices, dip in batter and fry for fritters. Hoping this information will be useful, and that Anna will be successful with her garden this summer.

HELPONABIT.

Re a New House.

Dear Dame Durden,—I have felt for some time that I should send a note of thanks to the "Ingle Nookers" for all the helpful hints in regard to home-keeping. The recipes sent are always good. Just this afternoon I made a "batch" of oatmeal drop cookies according to the recipe in Feb. 3rd. My small daughter of 4 years pronounced them "dandy," and she is an authority on cookies.

It really is advice I'm after. We are planning to build a new house this summer. It is to have all modern conveniences. We saw an ad. in the Breeders' Gazette, of Chicago, of an air-pressure system, an affair attached to the bottom of the cistern by means of a pipe, the said cistern to be in the cellar, or some place where the pipe can be attached, and the water can be forced to any part of the house. We would like to try it, but would like first to know if any one knows anything about it. It is to save attic tanks, or hand pumping a force pump. The price was from \$48 up.

I also want to know how large a beam should be exposed in ceilings, and if a cross-beam effect would look well in rooms 13x18 or 18x18. I thought to have the beams run the narrow way of the room, just straight, 3 or 4 feet apart. Which would look better? The dining-room is to have a 6-ft. wainscoting. The living-room and entrance hall I thought of ceiling. What kind of wood beside oak—which is too expensive—would we use for the purpose? And what stain would be best for the ceiling walls and woodwork of the three rooms? I thought of a weathered brown or green. They will all be bright, sunny rooms, with large casement windows, with small panes and window seats built in. The lower story will be red brick, laid in black mortar; the upper story shingles, stained brown. Would it look better to have the large fireplace built of common brick, or would pressed brick do better? It is to be brick all the way to the ceiling.

Am having a built-in cupboard between dining-room and kitchen. Is it wise to have it open right through, putting dishes in on one side and taking them out the other, or would the smell of cooking get into the dining-room? I also thought by having a Chatham kitchen cabinet I could do without a pantry, having a lift from the cellar for cabbages, and moving the cabinet into the summer kitchen. Is it wise to do without the pantry? MARGARET. Oxford Co., Ont.

Our editors believe the water system to be all right, but would advise you to find out about several systems, and compare.

The beams would, I think, look best running crosswise of the room. In a room of this size they would not need to be too large, or a top-heavy effect would be induced. I should say they might be about four feet apart.

As regards the wood to be used for woodwork, Georgia pine is much in favor for this purpose. I may mention here that the very artistic house of Mr. G. A. Reid, B.A., of Toronto, is entirely finished in native pine, simply stained. Stains are now used in all the best houses, never "graining," which is quite out of date. The weathered effects are especially good, but of course the rooms in which they appear must be furnished to match,—mission furniture and stencilled or plain curtains being particularly suitable.

Your small-paned windows with built-in window seats will be very artistic. Be sure to have the seats with lid tops,

as they can then be used for packing things in—old magazines, etc.

Common red or brown brick for facing for a fireplace is very artistic, but some prefer the smoother-finished pressed brick, and yet others the Pompeian tiling, which looks like brick, but has a hard, glossy, somewhat uneven surface,—at least it can be got with these qualities.

Re the cupboard between kitchen and dining-room: Many like this idea; others prefer to have the cupboard entirely in the kitchen, and a swing door for passing between the two rooms. It is a mere matter of taste. Probably the method you suggest will save the most steps. . . I imagine you will find it very satisfactory to do without a pantry, if you have large built-in cupboards and a baking cabinet. Pantries are fast losing favor these days.

Ammonia Cookies.

Will someone please send this recipe for a reader who requests it? I had one some time ago, but cannot find it.

Letter from Manitoulin.

Dear Dame Durden and Ingle Nookers,—I am sure I have been a "sponge" long enough. I have read with much interest the helpful letters of our good Dame, and have been helped, cheered and instructed many times by different letters in the Ingle Nook, and so often I "resolved" to write and thank you one and all. Especially at New Year's time I did want to write a big letter, but I did not put my resolutions into practice. I would like to say right here, it doesn't matter how good our resolutions are, nor how often we make them, if they are not put into practice. I heard a good brother once say he believed the road to hell was paved with good resolutions. Now let us act right.

I have read the splendid article by our worthy D. D. about making our labor easy. I have learned a number of things by experience. I used to damp, fold down and iron every article in the wash, even the lamp cloths, dusters, etc., but I now take pleasure in folding them straight, smooth them out nicely with my hands, and lay them away ready for use. I treat all kitchen towels so, also sheets and the majority of our underwear. By making a small job of the ironing I have more time to read and rest, or do a little fancywork (of which I am very fond). I find it quite true, "Life is worth more than meat, and the body more than raiment."

There is another thing I want to tell each one of our friends, every mother who reads this friendly page of "The Farmer's Advocate." I do hope every one of you are loyal temperance people, and teach the children to be the same. Let us hold the standard up so beautifully to our daughters that they will never wish to be in company with any young men who are not teetotalers. O girls, never marry a man if he drinks. I read such a touching story in the Northern Messenger about a girl who married a man who drank, and she knew it, but oh, what sad blighted life she lived. He drank worse as time wore on. Once, when maddened by the stuff, he murdered his two sweet little girls, then cut his own throat. Never trust a man who touches it; be on the safe platform.

I wish our girls would help crush, stamp out, the terrible habit so common now of using slang. If all our girls would not associate with young men who use slang (and some even use profane language), I believe we would soon see a big improvement in young people generally. Girls have as much power in their hands as men have in their vote. Be careful, dears, how you use your talents. I have not lived fifty years without learning a few things.

For fear I weary you I will say good-night, but I really would like to call again. GRANDMOTHER.

Manitoulin Island.

Come again whenever you like.

Can Anyone Answer?

Dear Dame Durden,—I have a nice way of preserving fish, suckers, for summer use, but would like to find out if there is a way of softening the bones, also coloring them like salmon. My husband



All flour is made from wheat. But there are different kinds of wheat and several ways of milling.

Royal Household Flour

is made of the best hard wheat in its finest and purest form. It always produces uniformly light, wholesome bread or pastry because its quality never varies. If your grocer does not carry Royal Household Flour, he will get it for you.

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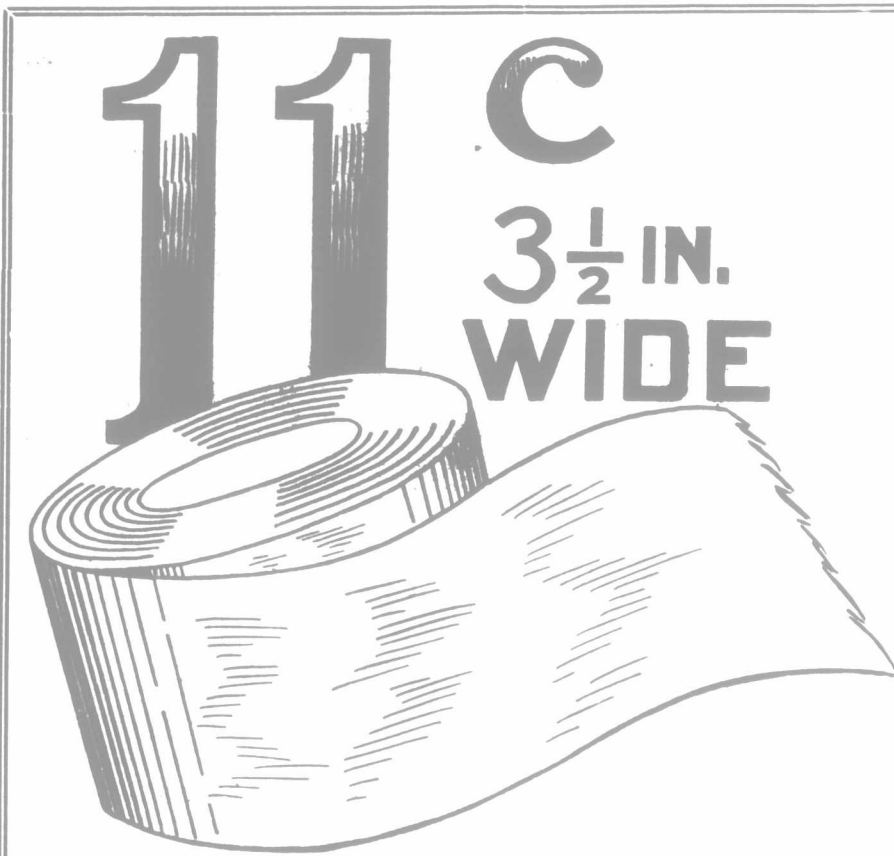
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For Spring and Summer, 1910, is now ready. Write for a copy TO-DAY—a post card will do.

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Brantford Roofing has two trade-marks



You cannot always judge a roofing by its price. Lower-grade roofings are often sold at about the same price as Brantford Roofing. So please be careful.

You can only make sure of lasting service by first making sure that you are getting the GENUINE Brantford Roofing. Remember that each roll of the genuine bears two trade-marks. One trade-mark is "a roof with a big letter B in the gable." The other is a "rooster" in the act of crowing.

Send right now for our big roofing book. It tells our reasons for making Brantford Roofing higher in quality than any other ready roofing. We believe you'll appreciate these reasons. It also tells why we make Brantford Roofing in THREE finishes—Asphalt, Rubber and Crystal.

BRANTFORD ROOFING COMPANY, LIMITED,
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says that he would not know the difference if that were done.

I salt them a little for 24 hours, then put a little pepper on and pack as closely in sealers as possible, pour vinegar over them and boil for 1½ hours, then remove and fill the jars with hot vinegar. Hope this will be useful to someone.

Our baby is four months old, but very strong. What age would she need to be to go in the jumpers?

FARMER'S WIFE.

Emergency Dessert.

Dear Dame Durden,—We like "The Farmer's Advocate" very much. We think there is no paper like it. Especially do I like the Ingle Nook and Hope's Quiet Hour (God bless her for her kind thoughts and interest in us all), and the Literary Department. I enjoy reading the contests. I have been helped by the recipes, and would like to return something. Here is a small recipe for dessert in an emergency. Pare, core and cook five or six apples; cook in a granite dish, sweeten and flavor; then mix a batter with one egg, half cup sugar, tablespoon butter and half cup milk, two teaspoons baking powder, and flour enough to thicken. Drop in with spoon into the sauce when cooked. Should be very light and spongy. Serve with whipped cream or cream and sugar.

HELPMEEET.

To Rid Poultry of Lice.

Dear Dame Durden,—I come to the Nook for the first time. I am sure it is a help and a pleasure to all its readers. I give a recipe to rid poultry of lice (it was in "The Farmer's Advocate" of 1880, one of grandfather's old numbers). Give a heaping tablespoon of sulphur once a week in their feed to every ten hens. I will give the item in full below, as I think it is worth republishing, but don't know if you will let us bring all the "animals" in the Nook or not.

"Sulphur for animals: If taken internally with their food, sulphur will almost invariably keep all kinds of animals free from lice. We have made a practice for years past of giving a heaping tablespoon once a week in the feed of each of our cows, and the same quantity to about every ten hens in our flock, and they have never been troubled with lice on them. It may be given in the same proportion as to size when required in the food of poultry, pigs and sheep. Sulphur is a mild cathartic when desired for this purpose, and in small doses to have a general beneficial effect on the animal's system, something like salt; though, of course, not of that nature."—["Farmer's Advocate," June, 1880. Oxford Co., Ont. GRANDDAUGHTER.

Our Scrap Bag.

Vegetables may be had ready for use much earlier than ordinarily by starting them indoors. Cabbage, cauliflower, onions, carrots, beets, parsley, tomatoes and lettuce may all be started in this way. Start just a few of each in the house and put in more seed later, in the open ground, to keep up a succession.

A writer in Garden Magazine advises, "Let us try this year to make our gardens characteristic and personal. One garden is too much like another, because we are afraid to be original." Few farmers, perhaps, have time to trouble with landscape gardening, but the little back garden running riot with luxuriant leafage and bloom is possible to almost every farm; and, no doubt, even in its individuality can express itself. Somewhere in it arrange to place a post with a drinking-basin for birds, so arranged that cats cannot molest. The little visitors will prove a frequent source of interest.

An old-fashioned idea was that no drink whatever should be taken during meal-times. The foolishness of this must appear when we remember that none of the food we eat enters the tissues of the body until it is in solution. The important consideration is, however, that liquid should never be used to "wash down" food. Food should be chewed thoroughly in order that the salivary juices may do their work, then swallowed, the liquid following whenever desired. Water should also be drunk be-

tween meals; this habit should be cultivated.

The Shirtwaist.

The shirtwaist, either white or of the same color as the skirt, promises to be "in" again this year, and a million girls are correspondingly grateful. After all, nothing takes the place of the shirtwaist. Make it a bit plain and it does for all but the "statest" occasions; add ever so few fancy touches and it does for visiting, for church, even for evening parties in a quiet place. And the best of all is that most girls can make shirtwaists for themselves.

A prime necessity, however, is a good pattern. A great many girls get a good plain pattern that fits, and use it as a basis for all their waists, adding tucks, etc., as required. Others prefer to get a new pattern each time. At all events it is not wise to keep on using the same pattern if the lines happen to change noticeably, which does occur once in a ten-years, perhaps. For instance, at present the shoulder seams run straight from the neck to the tip of the shoulder; a few years ago they ran backward somewhat, forming a very perceptible slant. A little observation, however, will keep one informed on such points as this.

Seasonable Recipes.

Orange Jam.—Take 1 dozen oranges and 6 lemons (or have all oranges, if you choose), and wash them very thoroughly. Slice very thin, removing all the seeds. Let stand in 1 gallon water for 36 hours, then boil gently for 2 hours. Add 10 lbs. granulated sugar, and cook one hour longer. Put into jelly glasses, and when cold cover with melted paraffine. Part of the fruit may be bitter oranges if preferred.

Poached Eggs.—Never let the water more than simmer, and keep the dish tightly covered. Lay each egg on a slice of toast, cover with white sauce; sprinkle with pepper or paprika and dots of butter, and serve.

Potatoes and Cheese.—Boil the potatoes and mash well, adding butter, pepper and salt to taste, and enough hot milk to make them quite soft. Beat in a half cupful of cheese grated fine, and grate a thin layer of the cheese over the top. Bake in the oven, pin a serviette about the bake dish, and serve.

Left-over Porridge.—Mix with a little flour, add a few tablespoons molasses, ¼ cup sugar, spice to taste, and some chopped dates. Put in a dish, steam, and serve for dinner as pudding with a good sauce.

Old Potatoes.—Cut into small pieces, let soak three or four hours in cold water, then put into cold salted water and boil. Serve with cream sauce. A very good substitute for new potatoes.

Dried-apple Cake.—Soak 2 cups dried apples, and when tender add 1 cup raisins, 1 cup molasses, 1 cup sugar and a little cinnamon and cloves. Boil, let cool, then add 1 cup sour milk, 1 cup butter, 2 eggs and 2 liberal cups flour well sifted. A teaspoon of soda should be added, either sifted with the flour or dissolved in the milk. Bake in a rather slow oven for 2 hours. This cake keeps some time, and improves with age.

Spiced Apples.—Try refilling some of your empty sealers with the following: Make a syrup of equal parts sugar, water and vinegar, adding a few whole cloves and some stick cinnamon. When syrup is hot put in firm tart apples, peeled and quartered. Cook till tender, but not broken. Take apples out with a skimmer, boil syrup down until it thickens, then pour over the apples.

Fish Pie.—Line a dish with pie-paste. Put in 2 tablespoons cooked or uncooked rice. Bake till paste is about half done. Have ready 3 eggs beaten with ¼ pint milk and a cup or two of cold flaked fish. Pour this mixture in, and bake the pie until brown. Serve very hot.

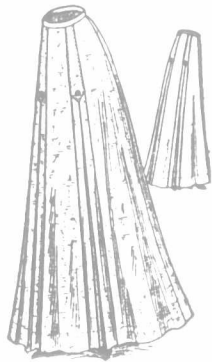
Boiled Fresh Herring.—Wash, wipe with a cloth dipped in vinegar; put in boiling salt water. Boil very gently 10 or 12 minutes, and serve with a sauce made of melted butter, vinegar and catsup.

Fish Cakes.—Mix mashed potatoes with any left-over fish from which bones have all been removed. Now mix in some butter, and a beaten egg (keep out a little of the egg to brush over the top). Make into cakes. Brush over with the

egg, dip in breadcrumbs and fry, or bake in the oven.

Baked Fish.—Dip slices of fish in flour. Have 2 eggs beaten up with 2 table-spoons of milk. Roll the floured fish in this, baste each slice with melted butter, and bake.

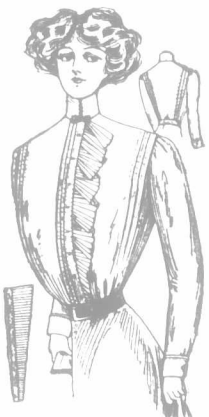
The "Farmer's Advocate" Fashions.



6446 Six Gored Skirt, 22 to 32 waist.



6547 Girl's Dress, 6 to 12 years.



6556 Blouse or Shirt, Waist, 32 to 42 bust.

Give bust measure, waist measure, or age, as required. Price, ten cents per pattern. Address, Fashion Department, "Farmer's Advocate," London, Ont.

"Christmas Roses."

Mr. Chas. Baker, London Nurseries, London, Ont., who is an extensive dealer in trees and shrubs, has a garden now filled with the bloom of the Christmas "Rose," a plant that blooms under the snow. He is prepared to sell roots of this curious plant (really a hellebore) to all who may write to him.

An Alabama man tells of a unique funeral oration delivered in a town of that State, not long ago, by a darkey preacher. Now, it seems that the habits of the deceased brother had not been irreproachable, to the great scandal of the worthy pastor of the flock. So, in summing up the case at the funeral, the preacher delivered himself of the following: "My brethren and sisters, we are here to pay our last sad respects to our departed brother. Some says he was a good man, and some says he was a bad man. Where he has gone to we can't tell, but in our grief we have one consolation, and that is—he's dead."

The Roundabout Club

Biographical Sketches.

Samuel Taylor Coleridge.

Samuel Taylor Coleridge, one of the strangest, brightest, saddest characters in the whole range of biography, was born at Ottery, St. Mary's, Devonshire, October 21st, 1772, the youngest son of the Rev. John Coleridge, vicar of the parish and master of the grammar school.

When but nine years of age, he entered the great school, "Christ's Hospital," where he distinguished himself in various ways. Upon one occasion he was soundly flogged for reading Voltaire and "sporting the infidel." Upon another, he swam the New River in his clothes, and contracted a serious form of rheumatism which left him a sufferer for life. At no time does he appear to have been a regular or systematic student, but his mental brilliance was such that it seemed as if, for a time, a dazzling meteor had shot across the dull horizon of Christ's Hospital. Writing of his career at this time, Charles Lamb, a fellow-student who achieved an equal fame, cried, many years later, "Come back, like as thou wert in the dayspring of thy fancies, with hope like a fiery column before thee, the dark pillar not yet turned—Samuel Taylor Coleridge—logician, metaphysician, bard. How have I seen the casual passer through the cloisters stand still enraptured with admiration (while he weighed the disproportion between the speech and the garb of the young Mirandula), to hear thee unfold in thy deep and sweet intonations the mysteries of Jamblichus or Plotinus (for even in such years thou waxedst not pale at such philosophic draughts), or reciting Homer in Greek, or Pindar—while the walls of the old Gray Friars re-echoed to the accents of the inspired charity boy!" Coleridge's memory, indeed, as well as his "fancy," seems to have been most remarkable; it is said that, after a single reading, he was often able to recite whole pages verbatim.

In 1793 the youth kept up his record for escapades, by going up to London, where he "spent his last guinea," and enlisted in a regiment of Light Dragoons. The career of soldier did not, however, prove as fascinating as he had expected, and he was easily induced by his friends to leave and go on with his education at Cambridge.

At the end of the summer term he went on the eventful walking tour to North Wales, which resulted in his meeting with Southey and forming with him the famous but abortive plan for establishing an idyllic colony on the Susquehanna—a plan which resulted in nothing—for him, at least—but a most unfortunate marriage with Sarah Fricker, a sister of the "Edith" whom Southey married, but so much more happily.

From this time on for many years, the story of Coleridge's life is one of chaos, aimless rambling and disappointment, interspersed with a few sunlights of transcendent brightness. Now in London writing sonnets for *The Morning Chronicle*, and "sitting late, drinking late," with Charles Lamb, at the "Cat and Salutation"; now settled with his wife in a "myrtle-bound" cottage at Clevedon; now, in reduced circumstances, and living with his mother-in-law at Bristol; now settled once more in the afterwards-famous cottage at Nether Stowey, in the Quantock Hills, where he purposed making a living as a market gardener, but which he immortalized by writing there the inimitable "Ancient Mariner," and part of "Christabel."

Before two years there was another shift, to Alfoxden, where he met with the Wordsworths, and, in conjunction with the great Lake Poet, issued the first volume of "Lyrical Ballads." Here, too, he preached for a short time in a Unitarian church, but resigned on being given an annuity by Josiah and



You, Madam, Have Many Uses for Diamond Dyes

Madam, stop a moment and think of the many uses you have for Diamond Dyes right in your home.

Don't imagine for a second that Diamond Dyes are only to be used for coloring dress goods, articles of wearing apparel and carpet rags.

True, Diamond Dyes will color these articles, and do it better than any other dye can possibly do. But coloring these articles is the least of their uses.

There are hundreds of uses for Diamond Dyes, and we want you to know of them.

And, remember, every time you use Diamond Dyes they will save you money. They will beautify your home furnishings.

They will give longer wear to old, faded or soiled garments.

And their range of colors and pretty shades will lend themselves to many color schemes that will please you immensely.

Now, for instance, there are portieres, couch covers, tablecloths, shadow curtains, etc., that are a little faded, or soiled, or probably you don't like the color.

Think what Diamond Dyes will do for them! Don't throw them away.

You can restore the color or give a new color to them, and do it just as easily as washing a handkerchief.

Then, there's ribbons, sashes, veils, feathers and trimmings of all kinds. With Diamond Dyes you can make them just as good as new.

The ribbons, sashes, or the trimmings on the old dress, can be dyed to match or blend with the new one, and at a trifling cost of 10 cents.

Faded hosiery, silk gloves, laces, carpets, rugs, draperies—everything in the home, in fact—can be given new life and added beauty by a bath in Diamond Dyes.

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You can use Diamond Dyes and be sure of the results. You can use them with safety on the most expensive piece of goods—and there is no danger of the goods becoming spotted or streaked, or harmed in any way.

You may have tried dyeing some old material before, and were not satisfied. But it wasn't Diamond Dyes you used. Diamond Dyes are far superior to any in the world, and always give perfect satisfaction.

After trying them once you will use them with pleasure on many things you have in the home that seem too good to throw away.

There is no other dye made that will do the work of Diamond Dyes. There is no other dye that you can use with such perfect safety to the material.

DIAMOND DYES

are "The Standard of the World," and no other dye is so perfect in formula, positive in action, certain in results.

THE TRUTH ABOUT THE USE OF DYES.

Diamond Dyes are the standard of the world, and always give perfect results. You must be sure that you get the real Diamond Dyes, and the kind of Diamond Dyes adapted to the article you intend to dye.

Beware of imitations of Diamond Dyes. Imitators, who make only one kind of dye, claim that their imitations will color Wool, Silk, or Cotton ("all fabrics") equally well. This claim is false, because no dye that will give the finest results on Wool, Silk, or other animal fibres, can be used successfully for dyeing Cotton, Linen, or other vegetable fibres. For this reason we make two kinds of Diamond Dyes, namely: Diamond Dyes for Wool, and Diamond Dyes for Cotton.

Diamond Dyes for Wool should not be used for coloring Cotton, Linen, or other Mixed Goods, but are especially adapted for Wool, Silk, or other animal fibres, which take up the dye quickly.

Diamond Dyes for Cotton are especially adapted for Cotton, Linen, or other vegetable fibres, which take up the dye slowly.

"Mixed Goods," also known as "Union Goods," are made chiefly of either Cotton, Linen, or other vegetable fibres. For this reason our Diamond Dyes for Cotton are the best dyes made for these goods.

Diamond Dye Annual—Free Send us your name and address (be sure to mention your dealer's name, and tell us whether he sells Diamond Dyes), and we will send you a copy of the famous Diamond Dye Annual, a copy of the Direction Book, and samples of dyed cloth, all FREE. Address:

THE WELLS & RICHARDSON CO., LIMITED,
200 MOUNTAIN ST., MONTREAL, P. Q.

THE MONITOR ROTARY LAWN CLOTHES DRYER

It will save time — save carrying the heavy basket all over the yard — save the trouble of putting up poles and stretching lines every wash-day — prevent clothes getting soiled while drying. Easily set up or taken down in two minutes. When put away, leaves the lawn clear and keeps the lines clean. 150 feet of line, and every line within easy reach. If your dealer cannot supply it, write us for information.

Cammer-Bourswell Limited, Hamilton, Ont. 59

SEEDING

Will be on before you know it. Have you secured something good for that special field of yours? A good Oat is essential, also a good Vegetable garden. Just take a look over our catalogue (if you have not got one, please drop us a card), and send in your order for seeds that will give good results. For prices on

SEED GRAINS CLOVERS and TIMOTHY

See what we offered on page 510 of last week's issue of the "Advocate." As this goes to press we still have a stock of everything offered. Kindly note that the prices quoted on potatoes should have been per bag instead of per bushel. We also omitted to remind you that we carried a stock of the following

FERTILIZERS:

| | Per 100 lbs. | Per ton. |
|-------------------------|--------------|----------|
| Muriate of Potash..... | \$3 05 | \$55 00 |
| Sulphate of Potash..... | 3 40 | 59 00 |
| Nitrate of Soda..... | 3 50 | 60 00 |
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| Animal Manure..... | 1 50 | 27 50 |

Geo. Keith & Sons
124 East King St., Toronto, Ont.
SEED MERCHANTS SINCE 1866.

"What! going to the masquerade this evening?"

"No—Saturday night. I'm getting my dog used to the costume so that he will know me when I come home Sunday morning.—Fliegende Blatter.

STATEMENT OF A TRAVELLER

Is Sure Dodd's Kidney Pills Cured His Diabetes.

Geo. H. Watterworth, of Rodney, Feels Like a Boy Again After Suffering From the Most Deadly of Kidney Diseases.

Rodney, Ont., March 28.—(Special).—Mr. Geo. H. Watterworth, a well-known travelling salesman, whose home is in this place, makes an unqualified statement that he was cured of Diabetes by Dodd's Kidney Pills.

"Yes," Mr. Watterworth said, when asked regarding his cure, "Dodd's Kidney Pills cured me of Diabetes. I took thirty-seven boxes in all, but to-day I am restored to good health.

"I was also troubled with Rheumatism and Headache, my sleep was broken and unrefreshing, and I was always tired and nervous. But Dodd's Kidney Pills cured me, and now I feel just like I did when I was a boy."

Dodd's Kidney Pills cure Diabetes because it is a Kidney disease, and there is no form of Kidney disease Dodd's Kidney Pills will not cure. Mr. Watterworth's other ailments were caused by diseased Kidneys failing to strain impurities out of the blood, and Dodd's Kidney Pills cured them by curing the sick Kidneys.

Thomas Wedgwood of £150 a year for life. "Passing rich" upon this, he next went with the Wordsworths to Germany, where he threw himself into the study of German, with such success that, on his return, he was enabled to make such a translation of Schiller's Wallenstein as has been declared a finer poem than the original.

The next move was to "Greta Hall," at Keswick, where, for a short time, he carried on desultory magazine work, and in occasional moments of inspiration wrote the second part of "Christabel," but spent most of his time wandering, when not with the Wordsworths, over the hills and about the lakes, note-book in hand.

Then the great tragedy fell. He became addicted to the use of opium, which he had begun, possibly, to allay the severe pain from which he almost continually suffered; his relations with his wife, who could neither understand him nor sympathize with him, became more and more strained, and by the end of 1803 there was a practical separation. His condition at this time was most pitiable. He was fully conscious of the depths into which he was falling, and was restless and miserable in both body and mind. Upon one occasion, in a hopeless effort to numb his mental tortures by "mere mechanic exercise," as it would seem, he walked 263 miles in eight days; but the cure was unavailing. His "Ode to Dejection," and "Pains of Sleep," are pathetic memorials which he has left of this terrible time.

After this, a flying trip to Malta, where he remained a short time as secretary to Sir Alexander Ball; a return again to the Wordsworths, and a pitiable misunderstanding with them; fitful periods spent in London, in Calne, and in Bristol; still more desultory writing for the press, and a course of lectures to which he was driven to earn his bread; then, finally, a new hope and a new life.

In April, 1816, he was taken, as patient and boarder, into the home of Dr. James Gillman, a Highgate surgeon, and for the remaining 18 years of his life he found in this house a haven and a home. Here he resolutely broke away from the opium habit which had enslaved him for so long, and devoted himself more persistently to his literary work, his lectures, and, perhaps above all, to his talks with the young men who came to listen to him in his efforts to found a sort of philosophic school, and who were inspired as they listened, for, as it was said, he "could talk on forever and you wished him to talk."

Had Coleridge been more persistent in his work, he might have left such a bequest to English literature as, perhaps, few men of his own or any age could have produced. As it was, although he began much, he finished little, and so he has chiefly left to us fragments, brilliant, original, mystic, but which have been sufficient to reveal him as a poet of the highest order. He wrote comparatively little, but nothing, after he reached the age of manhood, which does not bear the magic touch. In addition to the poems already mentioned, his chief works are, "France, an Ode"; "Hymn Before Sunrise in the Vale of Chamouni"; "Ode to the Departing Year"; "Youth and Age"; "Ode to Naples"; and such magnificent fragments as "Kubla Khan," composed in his sleep; "Love," and "Biographia Literaria." Some of his prose works, "Aids to Reflection," "Lectures on Shakespeare and His Contemporaries," and others, are universally conceded to contain some of the very best literary criticism that has ever been written. It is sad to know, however, that many of his works and words (for even much of his conversation was transcribed by others) were not published until after his death. During his life he had met with some praise, and much censure. After his death his every word was treasured. His fame and the affection with which he is regarded

have not failed, rather gained, with the years, a true test, the only true test, perhaps, of the abiding literary genius.

Thomas de Quincey.

Thomas de Quincey, renowned as the author of the noted "Confessions of an Opium-eater," was born August 15th, 1785, in Manchester, where his father was a successful merchant. In 1796 he was sent to the grammar school at Bath, and, after several migrations from school to school, finally arrived at the Manchester grammar school, from which, in 1800, he ran away. For four months he lived like a gypsy in North Wales, roaming from place to place, sleeping for the most part in the open fields, subsisting on his allowance of a guinea a week, "writing love-letters for illiterate wenches, and finding friends everywhere," often, no doubt, veritable friends in need.

In November, 1802, he found his way to London, where, for a time, he lived a somewhat similar existence, and made more such "friends" in the heart of the great city; then, in the following year, he was induced by his relatives to enter Worcester College, at Oxford.

Little is known of his sojourn at the University except that it was his whim to escape from it as often as possible and go up to London, where, in some way, he began the fatal habit of eating opium. It was during this time, too, that he first met Coleridge, a result of the meeting being that, before finishing his course, he resolved to cast his lot with the magic circle of the Lake Country. In 1809 he became a tenant of Wordsworth's old cottage at Grasmere, and for some years seems to have applied himself to close study, meanwhile living a comparatively happy life in the company of the Wordsworths, Southey, Coleridge, and other literary friends. Unfortunately, however, the fatal drug-eating habit was fastening on him more and more, and by 1813 he had become "a regular and confirmed opium-eater."

In 1816 he married the daughter of a neighboring farmer, but, although he still continued studying in a desultory fashion, he seems to have made little effort to win a subsistence by his pen until 1821. At that time he seems to have, by a superhuman effort, pulled the remnants of his manhood together, and for the rest of his life was a prolific, if somewhat intermittent, contributor to many magazines, notably the London Magazine, Edinburgh Literary Gazette, and Blackwood's Magazine, then under the control of Prof. John Wilson (Christopher North). In 1830 he removed to Edinburgh, where he lived until his death, in 1859, at the age of seventy-five.

De Quincey's fame rests almost wholly on his essays, which, after appearing in the magazines, were collected into volumes. Although he was often erratic in thought, and occasionally gave way to an almost vulgar levity, his best work was sufficient to mark him as one of the most brilliant essayists of his own or any time. He was the undisputed master of a unique and unusually musical prose style, and had it not been that his great talents were too often blasted by his addiction to narcotics, his contribution to English literature would no doubt have been much greater. Among his most notable works are "Suspiria de Profundis," "Joan of Arc," "The English Mail Coach," and "The Daughter of Lebanon."

A dear old gentleman and his wife paid a visit to the seaside. While the simple pair were walking on the beach one evening they suddenly noticed the revolving light of a lightship.

The old lady gazed at it with open eyes for some minutes, then she turned to her husband with a puzzled look.

"Well," she exclaimed, "if the man in that ship hasn't lit that light this forty times, and it has gone out every time!"

Had a Bad Cough

FOR A NUMBER OF YEARS. WAS AFRAID IT WOULD TURN INTO Consumption.

Too much stress cannot be laid on the fact that when a person catches cold it must be attended to immediately or serious results may follow.

Thousands have filled a consumptive grave through neglect.

Never Neglect a Cough or Cold, it can have but one result. It leaves the throat or lungs, or both, affected.

Mrs. A. E. Brown, Ottawa, Ont., writes:—"I have had a very bad cough every winter for a number of years which I was afraid would turn into consumption. I tried a great many remedies but only received temporary relief until I got a bottle of Dr. Wood's Norway Pine Syrup and after taking two bottles my cough was cured. I am never without a bottle of Norway Pine Syrup."

Dr. Wood's Norway Pine Syrup is the medicine you need. It strikes at the foundation of all throat and lung complaints, relieving or curing all Coughs, Colds, Bronchitis, Asthma, Croup, Sore Throat, etc., and preventing Pneumonia and Consumption.

So great has been the success of this wonderful remedy, it is only natural that numerous persons have tried to imitate it. Don't be imposed upon by taking anything but "Dr. Wood's." Put up in a yellow wrapper; three pine trees the trade mark; price 25 cents.

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We have the following selected Seed Grain to offer, and varieties true to name:

- OATS.**—Tartar King, Ligowa, Banner, White Jewel, Big Four, Abundance, Sensation, Improved American, Irish White, Black Joannette, 50-pound Black. Any of the above 65c bush. Bags extra, f.o.b., Guelph.
- Early Oats.—"Daubenay," 80c bush.
- New Varieties.—White Wave (imported), \$1.75 bush. Bumper King, 85c bush.
- NEW SEED BARLEY.**—O. A. C. No. 21 (six-rowed), selected seed; a big yielder, good stiff straw, \$1.25 per bush; 10-bush lots at \$1.20. Mandshouri Barley (six-rowed), 80c bush. Black Hullless Barley, \$1.30 bush.
- SPRING WHEAT.**—Wild Goose, \$1.35 bush.
- PEAS.**—Early Centennial, Golden Vine, Prince Albert, \$1.20 bush. Canadian Beauty, \$1.30 bush.
- RED CLOVER and TIMOTHY.**—Fancy Red Clover, \$11.00 bush. Choice No. 1, \$10.50 bush., f.o.b. Guelph. Fancy Timothy, \$3.00 bush. Lucerne or Alfalfa, \$13.00 bush. Alsike, \$9.00 bush.

Write us for prices. State kind wanted. We carry other seed grain not mentioned here. Terms cash with order.

X Bags, 25c each; Hochelega Bags, 30c each; sacks, 10c each. All prices f.o.b. Guelph.

James Hewer & Son
Seedmen,
90 Macdonnell St., Guelph, Ont.
See later announcement re Seed Potatoes and Corn

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IMPORTANT NOTICE
A BRANCH OFFICE has been established at 107 St. James' Chambers, Toronto.

REDUCTION IN PRICE
This important change permits of prices being reduced to those prevailing in Europe, namely:—Full package, \$12.00; half do., \$6.50; quarter do. \$3.75; postage or express charges extra.

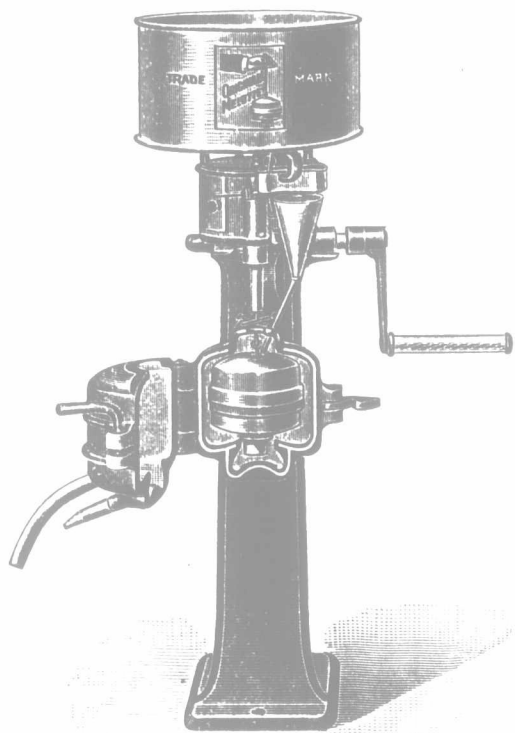
THE ONLY CANADIAN AND U.S. ADDRESS
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107 ST. JAMES' CHAMBERS, TORONTO
Pamphlet mailed free on application.
Beware of spurious imitations. All packages of Trench's Remedy must bear our trademark seal in unbroken condition on each end.

25 YEARS' CONTINUED SUCCESS

HAS MADE

The Melotte Cream Separator

1910 MODELS.



Style I-6. Capacities, 400-1,300 lbs. per hour. Can be driven by hand, belt or jet of steam.

The Choice of Experienced Users the World Over.

Before purchasing a separator write us for testimonials and learn what others say of the "Melotte."

WE CLAIM that the Melotte does everything that can be done by any separator.

Using less power. Doing the work in less time. Giving better results in every particular.

Our Testimonial Booklet, containing recent statements from users who purchased Melottes fifteen years ago, is sufficient guarantee of the durability and superiority of the

"Melotte"

DON'T HESITATE. WRITE US FOR PARTICULARS.

R. A. LISTER & CO., Limited,
58-60 Stewart St., TORONTO.

1910 MODELS.



Style A-E. Capacities, 280-720 lbs. per hour. Can be operated entirely by a boy or girl.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.
3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
4th.—When a reply by mail is required urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

CLIMBERS, INSECTS, ETC.

Speaking of vines to plant, a recent issue mentions, among others, the self-fastening variety of the Virginia Creeper and the Climbing Bitter-sweet.

1. Will you please tell me where plants of these may be obtained; also the cost?
2. Also, if the Climbing Bitter-sweet would make a good veranda vine, or if the berries would fall off and prove a nuisance?

3. Just what is the season, and the best method for planting these two vines?

4. What are the little white insects which so often destroy the Virginia Creeper? Would spraying prevent them, and when and with what should it be done?

5. Will you please tell us, also, to what Department of O. A. C., at Guelph, bugs and insects should be sent for classification? We have numbers of small, spotted-red bugs, which we are calling ladybugs, crawling upon the windows and walls of most of the houses here. They appeared last fall for the first, and are appearing again these warm days. Are they only ladybugs, or are they an injurious thing?
R. S. S.

Ans.—The self-fastening variety of Virginia Creeper and the Climbing Bitter-sweet can, I believe, both be obtained from one or more Canadian nurseries. The Climbing Bitter-sweet makes a very good veranda vine. The berries stay on most of the winter and do not become a nuisance. The best season for planting

both of these vines is early in the spring. They are very easily planted, and should be set a couple of inches deeper than they were in the nursery they came from.

The little insects which injure the Virginia Creeper are the leaf hoppers. These can be controlled early in the season by thorough spraying with whale-oil soap or kerosene emulsion. The Department at the O. A. C., Guelph, to which you should address letters asking for information about insects, is the Entomological Department. The ladybugs which are crawling upon your windows are very useful insects for destroying the green flies or aphids. They are not injurious to plants.
W. T. MACOUN,
Central Experimental Farm.

VARIETIES OF STRAWBERRIES—WHITE GRUB.

1. Would you let me know the best varieties of strawberries to plant, say about eight sorts, from early to late, for yield and size.

2. I set some plants on timothy sod last year, and the grub (white) killed a lot of them, 130 out of 200. I had potatoes next to them on sod. Would it be all right to plant in strawberries this spring? The potato land was well plowed last fall.
J. F. G.

Ans.—1. A good commercial list of strawberries is the following: Bederwood (P), Senator Dunlap (P), Three W's (P), Glen Mary (P), Sample (Imp.), Parson's Beauty (P), Williams (P).

2. The cultivation of last year will, no doubt, have prevented, in a large measure, the increase of white grubs in the soil, and they will not likely be so injurious this coming season. There might, however, still be enough to do considerable damage, and in preparing the ground this spring, if white grubs were noticed in any considerable number, I would not care to set the land out in strawberries. I should much prefer to take some piece of ground which has been cultivated for two or three years, as white grubs are much less likely to be found there.
J. W. CROW,
Professor of Pomology.

O. A. C., Guelph.

PROTECTING TREES FROM MICE—REMEDY FOR LICE ON CATTLE.

1. I have some young cherry trees, and, to keep the mice from them, I have rubbed axle-grease on them, and would like to know what others think about it. Do you think it will do the trees any harm?

2. Also, I have some cattle which have lice on them. I have been told cement is good to kill the lice. Do you recommend it?
J. L.

Ans.—Tar paper is injurious to young trees. Paint has been used on young apple trees as a protection from mice, but is not recommended for cherry or peach trees, as some injury from its use on these has been observed. We cannot say that mica axle grease would be injurious, but would be chary of using it largely until tested. Kindly report the effect on your trees.

2. It is said that cement alone will rid cattle of lice, but it is more certainly effective if mixed with insect powder. Sprinkle along the back and work into the hair.

KILLING BINDWEED—SUBSTITUTE FOR HAY.

1. Please publish what you think about the killing of wild morning-glory. I have summer-fallowed it two years in succession, and have done everything I can think of, with no good results. It is in my garden, and I am afraid it will spread to the farm. It is a terrible weed, and will climb up bushes or trees.

2. What would you advise me to sow on a piece of low land that would answer in place of hay for feed? The last two springs have been so wet and late that timothy and clover simply did nothing on it.
J. H.

Ans.—1. Bindweed, or wild morning-glory, is indeed a terrible weed. But it can be conquered. Frequent surface cultivation for two seasons will kill it. Cultivate as often as fresh shoots reach the surface, or about every five days. Plowing may check it, but, as it will live and grow in the turned furrow, will not

exterminate it. Surface cultivation will, if thorough.

2. Land that is too wet for timothy, will scarcely be dry enough for any grain crop. If ground dries fairly well in summer, late-sown oats or millet might be tried. Red top is a species of grass which would probably thrive extremely in just such soil. Rape would be good, if it will answer your purpose for feeding.

FLINT CORN FOR ENSILAGE.

Is the flint corn as good for ensilage as the dent? If not, why?

Ans.—Yes, only that it does not usually yield so well.

AN INFANT INDORSER.

1. A backs a note for B at an auction sale. A being under age, can he be compelled to pay the amount?

2. If not, can A's father be compelled to pay it?
F. R.

Ontario.
Ans.—1. No.
2. No.

MILLING.

1. What month and day of the month was Palm Sunday on in the year 1835?

2. How much flour, bran and shorts has a miller a right to give for a bushel of standard wheat, say 60 lbs.?

3. What is the law governing the milling business?

4. Which of the tester or standard half bushel is legal to test our wheat with?
SUBSCRIBER.

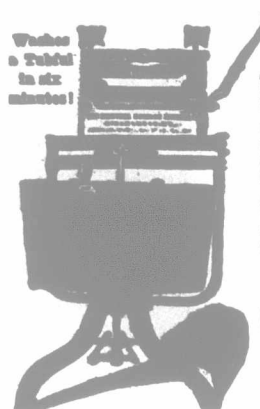
Ontario.
Ans.—1. This question is not agricultural, and is not of sufficient general interest to warrant the trouble of answering it.

2. We are not aware of any legal provision as to this; but the matter may be the subject of a custom of the particular locality, and be effectively governed thereby, if such local custom be sufficiently well established.

3 and 4. We would refer you to the Act respecting Mills and Dams (R. S. O., 1897, Chap. 140), and more especially to sections 1 and 2 of such Act; also to the Weights and Measures Act, R. S. C., 1906, Chap. 52.

GET THE WASHER RUN BY GRAVITY!

We have harnessed the Power of Gravity to the 1900 Washer. It is the Greatest Combination known for quick, clean, easy washing.



The Washer almost runs itself! In just six minutes it washes a tubful of clothes spotlessly clean. Over half a million housewives have tested this and proved it. So can you, without spending one cent! Here is the offer!

WASHERS SHIPPED FREE FOR 30 DAYS' TEST

We make this offer to any reliable man or woman anywhere. We send the Washer by freight, at our expense and risk. That's because we absolutely know you will be as delighted with the Washer as the thousands who have tried it. Get one of these wonderful Washers and say "good-bye" to the washboard forever. Good-bye to backaches, worry and washday drudgery! Let Gravity Power do the hard work! Let the Washer clean the clothes! We sell the Washer on little payments—only 50 cents a week. It pays for itself in a hurry. Then works for you—free for a lifetime! Drop us a postal card for the Free Washer Book and tell us your nearest freight station. Send to-day. Address me personally for this offer.

F. A. H. BACH, Manager
The "1900" Washer Co., 357 Yonge St. TORONTO, CANADA

The above offer is not good in Toronto or Montreal and suburbs. Special arrangements are made for these districts.

Splendid Dairy Farm for Sale

Situated on the St. Lawrence River one mile west of Prescott, Ont. 210 acres, about 25 acres woods; in fine condition. This is a rare chance for a farmer to go into cattle and dairying. Terms favorable. Apply to

J. McCarthy & Sons Co.,
PRESCOTT, ONTARIO.

HOMES

For Settlers in MANITOBA SASKATCHEWAN ALBERTA

How Made and How Reached
LOW SETTLERS' RATES

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| Settlers with Live Stock and Effects | Settlers and Families without Live Stock should use |
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COLONIST CARS ON ALL TRAINS in which Berths are Free
Apply to nearest Agent for copy of "Settlers' Guide," "Western Canada," "Tourist Cars," or write
R. L. Thompson, D.P.A., C.P.R., Toronto.

GOSSIP.

AYRSHIRES FOR ALBERTA.

The demand for Ayrshires in the "Sunny" Province is increasing as its progressive dairymen discover the possibilities of the Ayrshire breed and its adaptability to the soil and climate of Alberta.

This increasing demand has impelled our old friend and Ayrshire champion, J. G. Clark, of Irma, and the veteran Ayrshire breeder of Alberta, A. H. Trimble, Red Deer, the former to send for and the latter to come east and personally select a car lot for each. Mr. Clark's shipment was selected by R. R. Ness, of Howick, Que., and left Howick on March 19th. This lot, which is billed to go under the hammer at Lacombe on April 1st, comprised eight young cows ranging in ages from 4 to 6 years, seven heifers rising 3 years old, one two-year-old and two yearling bulls. Mr. Ness supplied several, and the others were secured from the herds of J. P. Cavers and Charles Moe, Ormstown; Arch. Cameron, Dewittville; Wm. Brown and J. A. Logan, Howick; S. A. Clelland, Hemmingford, and James McKell, Riverfield. They were an even, typical lot.

Satisfied with his venture last year in coming east twice and personally selecting, and having another lot consigned to him, Mr. Trimble lately arrived from the West, and with the assistance of R. R. Ness, has made another choice selec-

tion, numbering in all 22 head, an exceptionally fine lot, made up of ten young bulls, nine cows and heifers, and three calves. Five of the bulls Mr. Ness selected last December from the herd of M. H. Parlee, Sussex, N.B. (sired, I presume, by his champion bull, Lord Dudley of Spruce Grove), and all from imported dams. They are a grand lot. The one coming two next October was the winning bull under one year at the Maritime fairs last fall; while another was the six-months-old winner at the same fairs. P. D. McArthur, North Georgetown, contributed two choice yearlings; James Bryson, Brysonville, a dairy-like youngster; A. Clelland, Hemmingford, a useful yearling, and the veteran Ayrshire breeder, Geo. Bustard, Havelock, a bull brought out in good form. Two choice females (a six-year-old cow and a two-year-old heifer) were selected from the herd of James Cottingham, Ormstown; from James Bryson, two grand cows five years old; from James McKell, a grand young cow, fit to grace any herd; from J. W. Logan, an extra choice four-year-old cow; a grand dairy-type cow from Wm. Brown, and two fine young cows and three heifer calves from the herd of Mr. Ness. This is a choice shipment, and Mr. Trimble is to be congratulated on his selection, which will not only redound to his credit, but to the advantage of the breed in the West. A number of Ayrshire breeders in Ontario and Quebec have lately received inquiries from the Western Provinces, and we look forward to other consignments in the near future. W. F. S.

The MARK of a GOOD WAGON - AND WHY -

IN WAGON manufacturing, good paint too often covers a multitude of defects. But this condition of affairs doesn't last very long. After a little time poor material and poor construction will show and become a constant reminder that you have made a poor choice.

There is a safe way to avoid this—a certain way to a satisfactory purchase. Choose an I H C Wagon, either a

Petrolia or Chatham

In doing so you buy certain satisfaction. You get proved quality. You get a wagon that thousands of farmers have tried out under all conditions of wagon service. There is a lot in the name of a wagon. And in the names Petrolia and Chatham there is everything you could wish for in wagon service and quality.

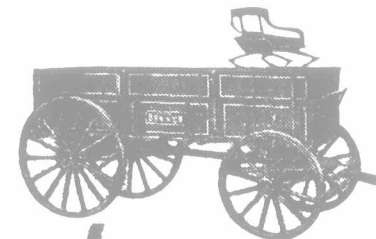
When you put good money into a poor wagon you are constantly reminded of it. And you continue putting money into it through time lost by breakdowns and inefficient service as long as you have it.

When you buy an I H C Wagon you make an investment that pays you big interest in efficient service for many years.

Both the Petrolia and Chatham Wagons are well up to the I H C standard of excellence.

The Chatham and Petrolia line includes Farm, Freight and One-Horse Wagons. A wagon is no better than the material entering into its construction. Chatham Wagons are as good as the best material, the best construction and the best workmanship can make them. They have hard maple axles, oak bolsters, sand boards, reach and hawsns, oak rims, spokes, hubs, oak or black birch, white ash trees and yoke, white ash or oak tongues. The material is dried under cover and carefully inspected. As soon as the machine work is done on all the gearing, each part is soaked in boiled linseed oil so that every grain, mortise and tenon is properly protected. The wheels are subjected to the same treatment before the tires are put on.

See the local dealer and select the wagon that meets your exact needs. Or, if you prefer, write nearest branch house for catalogues and prices.



EASTERN CANADIAN BRANCHES:
International Harvester Company of America, at Hamilton, Ont.; London, Ont.; Montreal, Que.; Ottawa, Ont.; St. John, N. B.

International Harvester Company of America (Incorporated) Chicago U S A



PUNCH HOLES In His Claims



30 Disks from Common Cream Separator

Would you buy 40 horses, to do the work of one, simply because "a dealer with horses to sell" claimed you needed 40?

Will you buy a complicated cream separator just because "a manufacturer with only complicated machines to sell" claims you need disks? Not when you can punch holes in his claims with the fact that simple Sharples Dairy Tubulars do the work better.

You want no disk filled separator when farmers all over the world are using simple, easy to clean, wear a life time Sharples Dairy Tubulars which have neither disks nor other "fillings" and yet skim fastest, cleanest, easiest.

Tubulars are The World's Best. Probably replace more common separators than any one maker of such machines sells. Sales exceed most, if not all, others combined. The manufacture of Tubulars is one of Canada's leading industries. Write for Catalog No. 198



THE SHARPLES SEPARATOR CO.
Toronto, Ont. Winnipeg, Man.

Have You Any Hard Milkers?

Do not neglect a cow that shows signs of becoming a hard milker. You can't afford to keep cows that have Caked Bag, Sore or Obstructed Teats, Udder Troubles, Hard Warts, etc. Here is a very complete and inexpensive Veterinary Outfit that every farmer and dairyman should have on hand when emergency arises. The

DRUMMOND HARD MILKER OUTFIT

consists of a Teat Bistoury, Teat Opener, Milk Tube, Teat Expander and a supply of Antiseptic Soap, all fitted in a neat, compact case. Everything you need to remedy obstructions, and ensure free milking. This outfit is especially useful after calving. Full and simple instructions are sent with each case. Price for a complete set, \$3.00. Order to day and let us send you our large Catalogue of dairy supplies—free.

W. A. Drummond & Co.
175 King St. E.
Toronto 3

HYDROMETERS

For Lime-Sulphur Mixture. Test your spraying mixture with our Hydrometers, recommended by O. A. C. Sent postpaid on receipt of price, \$1.25. Order now.

THE GEO. M. HENDRY COMPANY, LIMITED.
Chemical Glassware Supplies.
215-219 Victoria St., Toronto, Ont.

HARNES GALLS cured while horse works. Bickmore's Gall Cure best for cuts, wounds, sores. Sold by dealers. Book free. Wingate Chem. Co., Ltd., 885 Notre Dame St., W., Montreal, Can.

QUESTIONS AND ANSWERS.
Miscellaneous.

RURAL MAIL POSTS.

The rural route being established on our line, the Government officials order certain-sized posts erected on the road for mail boxes. Who is liable for damages in case of accidents to property or persons in coming in contact with said posts?

Ontario.

Ans.—The owners of the boxes must accept full responsibility.

G. ANDERSON, Superintendent.

TELEPHONE POLES — MAIL POSTS AND BOXES.

1. In case of accident, entailing injury to horses, persons or vehicles, caused by or resulting from the location along the highways of poles belonging to rural telephone companies, having permission from the municipalities to erect said poles along the public highways, who would be responsible, or legally liable for damages?

2. For the rural route being established on our line, the Government officials order certain-sized posts erected on the road for mail boxes. Who is liable for damages in case of accidents to property or persons in coming in contact with said posts?

3. Has a property holder thus instructed by the Dominion Government officials, the right to go out on to the public highway and erect such posts wherever he may please? If not, to what regulations or conditions must he conform?

Ontario.

Ans.—1. Assuming that the accident was due to negligence in the location of the particular pole or poles, we think that the action for damages would be properly brought if the writ of summons were issued against the municipal corporation.

2. Assuming negligence in this as in the other case, we should say the Government.

3. No. Improper placing of the posts would be a proper subject for complaint to the Post-office Inspector for the District; and he might also be written for information respecting regulations.

FERTILIZER FOR ROOTS, POTATOES AND GRAIN.

1. Once more I am going to draw on your inexhaustible supply of wisdom with regard to commercial fertilizers. Now, I have a field which is sandy loam, but not too sandy to grow fairly-good crops, and it was in hay for three years, first in clover and last two in timothy; field was plowed in the fall of 1908, and a crop of oats was harvested off of it last year, now I am going to plant potatoes on part of it, and I want to know what you would advise as a fertilizer. I might mention that an application of partly-rotted straw or horse manure would yield about 200 bags per acre. I am also sowing the remainder of this field to oats again, and seed to grass, and I would like to sow some fertilizer with the oats by way of an experiment. What would you advise?

2. By the way, will root ground give as good a crop of grain after an application of commercial fertilizer as it would after farm manure?

L. C.

Ans.—1. As a general rule, we have found that potato and root crops give best results from the application of a moderate amount of barnyard manure, say ten tons per acre, supplemented with commercial fertilizers. We presume, however, that you do not intend to apply manure to the field in question, and seeing that it has been three years in hay, it ought to contain a fair amount of humus.

The following fertilizer mixture is recommended for potatoes: 200 lbs. sulphate of potash, 350 lbs. acid phosphate, 150 lbs. nitrate of soda; or with ten tons of barnyard manure: 150 lbs. sulphate of potash, 300 lbs. acid phosphate, 100 lbs. nitrate of soda.

You mention that you would expect to obtain about 200 bags of potatoes per acre from an application of manure, but do not state the quantity of the latter.

For oats, on same field, seeding down to grass, the following mixture should be suitable: 80 lbs. muriate of potash, 300 lbs.

acid phosphate, 100 lbs. nitrate of soda per acre. Mix the potash and phosphate together and apply broadcast before seeding, but do not apply the nitrate of soda until the crop is through the ground, on account of the extreme solubility of this material. These instructions are applicable under almost all conditions.

2. Unless the soil is deficient in humus, grain will succeed equally well, and, in some cases, better, as a successor of roots to which commercial fertilizers were applied, as it would succeeding roots which had received manure alone, other conditions being equal. We have in mind an outlying field, which was prepared for roots. The available manure sufficed only for one-half of the field, so the other half received an application of fertilizers alone. Not only did we obtain a better crop of roots from the fertilized half, but the following barley crop was also much superior, and the clover and grasses seeded down with the barley, showed, on the fertilized part, a superiority over the other, during the whole period that the field remained in pasture, thus plainly indicating the after effects of the fertilizer.

B. L. E.

GOSSIP.

SALE DATES CLAIMED.

- April 7th.—A McQuillan, Guelph, Ont.; Clydesdales.
- April 7th.—G. A. Gilroy, Glen Buell, Ont.; Holsteins.
- April 12th.—Frank Inch, Kerrwood, Ont.; Ayrshires.
- April 20th.—James Benning, Williamstown, Ont.; Ayrshires.
- May 3rd.—T. L. Pardo & Son, Cedar Springs, Ont.; Shorthorns.
- June 7th.—At Guelph, Harry Smith, Hay, Ont., and others; Shorthorns.

SETTLERS' ONE-WAY EXCURSIONS

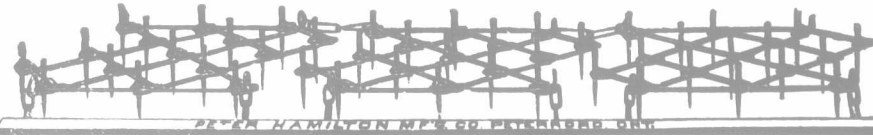
to Western Canada, April 5 and 12, via Grand Trunk Railway System, from stations in Ontario, Kingston and west, to principal points in Saskatchewan and Alberta. Particular attention is called to the fact that low rates apply to certain points on Grand Trunk Pacific Railway, a new territory, full of "Golden Opportunities." Secure tickets and further information from Grand Trunk Agents, or address J. D. McDonald, D. P. A., G. T. R'y, Toronto, Ont.

MAPLE LODGE SHORTHORN SALE.

The sale of Shorthorns at Maple Lodge, property of A. W. Smith, on March 24th, was well attended, parties from almost every part of Ontario, as well as a few from the West, were present, and were bidders for the animals offered. The offering was good, and in nice condition, and brought an average of \$108. Following are animals sold for \$100 or over, with purchasers' names:

- Madge C., May, 1905, Shortreid Bros., Walton, Ont. \$110
- Duchess, Jan. 26th, roan, May, 1907, Alex. Harron, Millbank, Ont. 110
- Grantham, red, Dec., 1908, C. R. Toole, Mount Albert, Ont. 115
- Griselda 2nd, red, April, 1907, P. M. Bredt, Regina, Sask. 100
- Princess Flossie, roan, Dec., 1902, J. S. Henderson, Rockland, Ont. 100
- Lovely Princess 2nd, white, March, 1906, D. McLaren & Son, Cromarty, Ont. 130
- Master of Flush 2nd, roan, Nov., 1908, Robt. Harper, Cranston, Ont. 110
- Gloxina 7th, red, Nov., 1907, Shortreid Bros., Walton, Ont. 125
- Village Ivy, red, May, 1907, T. Brett, Drayton, Ont. 165
- May Ivy, red, May, 1908, G. V. Stewart, Eric, Ont. 110
- Merry Mistletoe, roan, March, 1908, P. M. Bredt, 210
- Maple Lodge Ceelia, red, Jan., 1909, J. S. Henderson, Rockland, Ont. 145
- Duchess Jane 29th, roan, Nov., 1908, Shortreid Bros. 130
- Duchess Jane 30th, red, Nov., 1908, R. R. Wheaton, Thorndale, Ont. 100
- Roan Blanche 3rd, roan, March, 1907, P. M. Bredt, 100
- Red Blanche 3rd, red, Dec., 1907, Jas. Wheaton, Thorndale, Ont. 105

THIS IS THE MONEY-MAKING HARROW FOR FARMERS



It cuts smooth, levels and covers the grain better than any other.

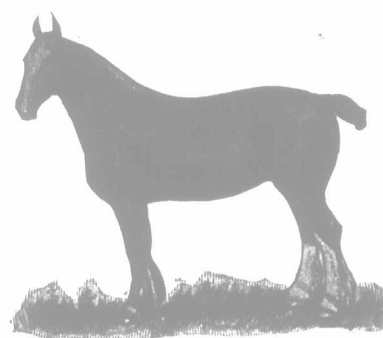
Perhaps slightly higher than some others in first cost, but in the end much cheaper, because the teeth can be taken out and sharpened so much oftener than any other. They are left extra long for this purpose.

The teeth are held to the frame by a malleable clip and staple with nut in each end, thus the teeth can always be kept tight and at the right distance down to properly harrow the ground.

A Harrow may seem a simple thing, but we have put Hamilton Quality into ours, and it will pay you to have one.

THE PETER HAMILTON CO., LIMITED,
PETERBOROUGH, ONTARIO.

CLYDESDALES AT AUCTION



etc., will be disposed of same day.

The subscriber will sell at auction at his farm, Frome, Ont., 2 miles from Shedden, M.C.R.,

TUESDAY, APRIL 5TH
8 HEAD REGISTERED CLYDESDALES

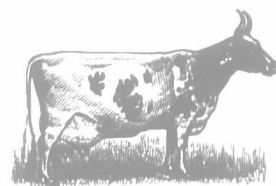
Including the imported stallion, Knockinlaw (13052) [5207]. 5 registered mares, weighing from 1,500 to 1,900 lbs., with extra quality; and two yearling stallion colts. Terms: 7 months' credit on approved notes. Six per cent. per annum off for cash. The farm having been sold, all stock, implements, grain, Sale to commence at 1 o'clock p. m.

B. V. BEHARRELL, FROME, ONTARIO

Great Dispersion Sale!

80 AYRSHIRE CATTLE 80

The celebrated herd of Jas. Benning, Glenhurst Farm, Williamstown, Ont.



Wednesday, Apr. 20, 1910

The Chicago World's Fair champions were bred in this herd. Included are Floss of Glenhurst and her five daughters, a cut of which will appear in a later issue. This herd, founded 50 years ago, is headed by Drongan Mains Guarantee, imp., (26337). Thirty of the cows have a milk test of 4.06 butterfat. Vehicles will meet the Moccasin and noon express trains at Summers-town, G. T. R. Sale will commence at 1 p. m.

Capt. T. E. Robson, Auctioneer.

JAMES BENNING, Williamstown, Ont.

MICHIGAN CEDAR POLES WESTERN

SHIPPING FROM MAIN YARDS ASSURES OUR CUSTOMERS PROMPT DELIVERY AND SELECTED STOCK AT LOWEST PRICES CONSISTENT WITH QUALITY AND SERVICE

THE VALENTINE-CLARK CO.

CHICAGO, ILLINOIS.

POULTRY AND EGGS

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

ANCONA EGGS—\$1.00 per setting. Wm. Bates, Binbrook, Ont.

BARRED Rocks, Minorcas and Houdans, winners at Guelph, Toronto, Montreal, Napanee and Lindsay. Excellent layers. Circular free. C. Day, Highgate, Ont.

BARRED Rocks—Right good laying strain. Cockerel, 247-egg strain. Price, \$1.00 per setting; 60c. at door. T. Edward Musgrove, Wroxeter, Ont.

BROWN and White Leghorns—Prizewinners and great layers. Eggs, \$1.25 per 15. Arthur Master, Highgate, Ont.

BARRED Rock eggs, safely packed in Morgan baskets, \$1.00 per 15. C. H. Chalmers, Smith's Falls, Ont.

BUFF Orpingtons—Hellyer and Hoffman strains. Eggs from best pen, \$2 per 13 eggs. Utility pen, \$1 per 13 eggs. John A. O'Dell, 334 St. James St., London, Ont.

BUFF Orpington eggs from London's Best Silver Trophy and Prizewinning winter-laying strain, \$1.50 and \$3.00 per setting. William T. Lawrence, Grey St., London.

BUFF Orpington eggs that hatch; nine chicks guaranteed. Four special pens, \$3 setting. Splendid utility stock, extra heavy layers, \$1 setting. Illustrated catalogue free. Hugh A. Scott, Caledonia, Ont.

BARRED and White Rock eggs, \$1 per 15; \$4 per 100. S. L. Jayne, Grafton, Ont.

BRED-TO-LAY strains of Barred Plymouth Rocks, White Wyandottes and Rhode Island Reds. Send for our beautifully-illustrated catalogue. Free. L. R. Guild, Rockwood, Ont.

BARRED Plymouth Rocks, 237-egg strain; one dollar per setting. Mrs. J. R. Henry, Waterdown, Ont.

BLACK Langshans will work wonders in your flock. Eggs, \$3 dozen. Glenloch Farm, Office 396 Yonge St., Toronto.

BARGAINS—Famous Pride of Ontario strain of Rose-comb Rhode Island Reds, White and Partridge Wyandottes; are prizewinners, record-breaking layers, large, strong, healthy, quick-growers. Circular free. Eggs, special bargain price only \$1.00 per 15. Quantity prices lower; guaranteed satisfaction. Pride of Ontario Poultry-yards, Colville, Ontario.

CANADA'S best Anconas. Winter layers. Very profitable. Free circulars. Tells all about Anconas and Leghorns. Edmund Carlyle Apps, Box 224, Vice-President International Ancona Club, Brantford, Ontario.

CHOICE COCKERELS—Rhode Island Reds. Fine large birds, \$1.50 each. Golden Wyandottes, large, rich plumage, grand birds, \$1.50. Rose-comb Minorcas, large, handsome, hardy, \$2.00 each. Sacrifice prices. Why not improve your flocks with these high-class cockerels? Pulletts for sale. A. McGugan, Rodney, Ont.

EGGS from guaranteed pure-bred Barred Rocks. Single-comb Black Minorcas, \$1 per 15. L. K. Blanchard (Leeds), Greenbush, Ontario.

EGGS from pure Indian Runner ducks, 10c. each. Single-comb Rhode Island Reds, \$1 per 15. Frank Bainard, Glanworth, Ont.

EDELWEISS WHITE ROCKS—Eggs for hatching, \$2 for 15. Breeding pen: "Edelweiss L" (3rd Ontario cock, '09), with 10 yearling hens, trap-nested, which have as pullets proven themselves "worth while." A grand utility pen. J. A. Butler, M.D., Baden, Ont.

FOR SALE—Six Buff Orpington and twelve Brown Leghorn pullets, \$1.50 each; from prizewinners. Leghorn eggs, \$1 per 15. H. Weston Parry, Princeton, Ont.

GOOD laying S. C. W. Leghorns. Eggs one dollar per fifteen; four dollars per hundred. Martin Robertson, Kent Centre, Ont.

KELLERSTRASS-Cook Strain White Orpingtons. Hellyer's strain Buffs. Eggs, \$1 and \$2 setting. Stock for sale. H. Ferns, 715 William Street, London, Canada.

RHODE Island Reds, Rose-comb; bred eleven years from carefully-selected heavy winter layers of large brown eggs. Fifteen eggs, \$1.50. Satisfaction guaranteed. Jno. Luscombe, Merton, Ont.

ROSE and Single-comb Black Minorca pens, headed by yearling cock and cockerels, all pure-bred. Should insure good fertile eggs for hatching; \$2.00 per setting. Just the thing to give new life to the farmers' poultry-yard. \$5.00 will buy a trio of single-comb-cockerel and 2 pullets. Joshua Murphy, Renfrew, Ont.

ROYAL City Poultry Yards—12 years a breeder of White Wyandottes. Five grand pens, all headed by winning males. Eggs for balance of season, \$2.50 per 13. Still a few males and females to dispose of. Also eggs from pen of A No. 1 Buff Orpingtons, \$1.50 per setting. Wm. Wilson, Prop., 219 Grange St., Guelph, Ont., N.B.—My birds have the run of 5 acres, and are full of vigor.

RHODE Island Reds, Rose and Single-comb, White Wyandotte eggs for sale, \$1.50 per 15. For egg production and size, I have good strains. W. A. McMaster, Guelph.

RHODE Island Reds—Rose-comb. Best general-purpose fowl in the market. Eggs for hatching from imported heavy-laying strain. Two dollars for fifteen from number one pen, or one fifty from number two. B. Colwell, Box fifty, Cookville, Ont.

SINGLE-COMB Black Minorcas—Stock and eggs for sale. Ontario winners and great layers. Satisfaction guaranteed. For particulars write: H. Dunning, Thornton, Ont.

S. C. W. LEGHORN and R.-O. B. Leghorn eggs for hatching, from best of stock, \$1.00 per 15. William Charlton, Iderton, Ont.

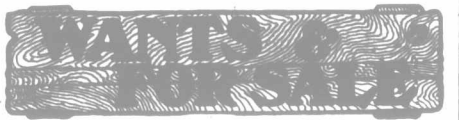
WHITE Wyandottes. Eggs, \$1.25 per setting. C. W. Beaven, Prescott, Ont.

WHITE Wyandotte eggs—From choice matings, \$1.50 per 30 in Morgan crates. W. A. Bryant, Calrington, Ont.

WHITE ROCK eggs at \$1.50 per setting; R.C. Rhode Island Red eggs at \$2; also some choice cockerels of both breeds for sale. Howard Smith, Winona, Ont.

WHITE Rocks, Buff Orpingtons. Choice prize-winning strains. Eggs, \$1 per setting. Wm. A. Rife, Hespeler, Ont.

WHITE Rocks—Big, pure white layers, \$1 per setting. O. B. Holden, Beamsville, Ontario.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock. TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 60 cents.

FOR SALE—Rubber and leather belting, pulleys, shafting, hangers, iron pipe. All sizes and lengths. Write for free list and prices, stating sizes. Imperial Waste & Metal Co., 7 Queen St., Montreal.

FOR SALE—Nova Scotia seed potatoes; best varieties; early and late. Apply: C. W. McCully, Truro, N.S.

GOVERNMENT standard seeds for sale: Red Clover, \$9.50; Alfalfa, \$11.00; Manchurian Barley, 70c.; Silver Mine Oats, 60c.; White Siberian Oats, 50c.; Splendid White Peas, \$1.00. Ask for samples. The Caledonia Milling Co., Limited, Caledonia, Ontario.

IF interested in growing strawberries send for my catalogue; it's free. Tells you how to grow them. Jno. Downham, Stratroy, Ontario.

IMPORTED (up-to-date) seed potatoes, second year's growing, good croppers, 75 cents per bag delivered on track. G.T.R. W. Barker, King P.O., Ont.

MAKE your own will; no lawyer required. Bax's correct will form. Full instructions and specimen with form. Postpaid, 25 cents. Copyright owner. Beware imitations. Bax & Co., Dept. 267, Arthur St., Toronto.

O.A.C. No. 21 Barley—Another grand lot now ready. Increased in point to fine birds. Seed drills, etc.; takes weight of horses' feet. Filled eighty-five orders last spring. One dollar. Jno. Elder, Hensall, Ont.

SEED CORN—Twenty-one varieties. All will grow. Fifty years' experience. Send for free catalogue. M. A. Jones, Ruthven, Essex Co., Ont.

SEED PEAS wanted—38 bushels of Potter Peas for seed. Wm. Pepper, Walton.

TONGUE support for harvesting machines, seed drills, etc.; takes weight of horses' necks; 600 sold in one county. Agents wanted. S. K. Brubacher, Elmira, Ont.

TREES FOR SALE—Over 100,000 evergreens, the biggest and best stock in Dominion. Sizes from 10 inch to 10 feet. Prices range 5 cents and upwards. Shade trees, fruit trees and bushes, flowering shrubs, roses, clematis, etc. Chas. Baker, London, Ont. 'Phone 2222.

WANTED—A married man for farm work; must be experienced. Yearly engagement if satisfactory. Apply: J. A. Pettit, Freeman, Ont.

WANTED—Experienced man and wife (no children) for work on dairy farm. Wife good cook; wages, \$500 a year with board. Address: G. T. Corfield, Corfield, B.C.

WANTED—By experienced farmer, position as Manager or Head Stockman; thoroughly experienced with cattle, sheep, including pedigree cattle. Apply to S. "Farmer's Advocate," London.

WANTED—Persons to grow mushrooms for us. Small waste space in yard, garden or farm can be made produce from \$15 to \$25 per week. Write for illustrated booklet and full particulars. Montreal Supply Co., Montreal.

WANTED—A married man for a dairy farm. Must be a good teamster, sober, of kind disposition, and able to milk if necessary demands it. Wife willing and able to board from 4 to 8 men. Only A1 couple need apply, and preference to one without encumbrances. Situation open April 15 to May 1. Apply Box G, "Farmer's Advocate," London, Ontario.

WANTED—Good general servant for household work on British Columbia farm. Twenty dollars per month the year round. Alex. Lochore, Lytton, B.C.

YOUNG men with small capital. Good profits await you in sunny, mild climate. Vancouver Island offers opportunities in business, professions, fruit-growing, poultry, farming, manufacturing, lands, timber, mining, railroading, navigation, fisheries, new towns. For authentic information, free booklets, write Vancouver Island Development League, Room B102 Law Chambers Bldg., Victoria, B.C.

Delhi Tannery Custom robe and fur tannery. If you have a cow hide or horse hide you want tanned or made into a robe or a fur coat, or have any kind of hides, skins or furs you want tanned, send them to me and have them dressed right. B. F. BELL, DELHI, ONT.

Pleasant Valley Farm offers WHITE WYANDOTTE EGGS for hatching from 2 pens of grand winter layers. Large white birds. \$1.00 and \$1.50 per 15, \$4.00 and \$5.00 per 100.

G. AMOS & SONS, Moffat, Ont.

WANTED
A few private farmers to ship me Poultry, Eggs, Syrup and all other farm produce. Will pay highest market price.

W. J. FALLE, Prince Albert Ave., Westmount, Montreal.

WANTED
To purchase Standard-bred stallion.

JAMES M. FRAWLEY, SUDBURY, ONT.

Toronto Spring Horse Show
The Canadian and Military Horse Show
ARMOURIES
April 26, 27, 28, 29 and 30, 1910.

ENTRIES CLOSE APRIL 14TH.

\$6,500 in Prizes.

For prize lists and all information apply to

W. J. STARK, Secretary,
12 Wellington St. East, Toronto, Ont.

For Sale—Complete Set English Shorthorn Herdbooks,

55 vols., original edition; Dominion S. H. H. B., Vols. 10 to 25, inclusive; also Vol. 1 Canada H. B.

JAS. A. COCHRANE, Lennoxville, P.Q.

GOSSIP.

DISPERSON SALE OF THE BENNING AYRSHIRES.

The handsomely-illustrated catalogue of the noted Glenhurst Ayrshire herd of James Benning, of Williamstown, Ont., to be sold at auction on April 20th, shows that the herd is high-class, both in breeding and individual merit. The herd was founded 50 years ago, by the late David Benning, of Beauharnois Co., Que., by his own importations from Scotland.

The greatest care has been taken to breed the dairy type of Ayrshire, and one of the striking characteristics of the herd is their size, with density of bone and clearly-defined conformation.

Animals from this herd have gone to all parts of the United States and Canada, also to Japan, making records wherever they went. The Chicago World's Fair champions, male and female, were bred in this herd.

The herd is perfectly free from any contagious disease, never having had a case of tuberculosis or abortion.

The entire herd of 30 milking cows had a milk-test of 4.06 per cent. butter-fat at cheese factory. During the past 10 years Mr. Benning has sent cream to Montreal. Any of these cows could qualify for the Advanced Register.

The sale will include no less than 80 animals of all ages, and it is safe to say that so large a number of Ayrshires never came under the hammer at one time in Canada, or indeed on the Continent of America.

The herd is at present headed by Drogan Mains Guarantee (imp.) (26337), whose breeding is hard to equal. His sire, Whitehall Prince Alexander (6230), is a son of that great bull, Prince Imperial of Netherhall, sire of Howie's Fizz-away, well known on this side of the Atlantic, both as a sire and many times a champion. Also sire of some of the very best cows in Scotland.

Whitehall Prince Alexander's dam is a half-sister to the most successful sire of the Ayrshire breed of recent years, Bagenoch Durward Lely (5559).

His dam is one of the very best cows in Scotland, and is sired by Soncie's Best of Orchardton, a son of that famous cow, Soncie of Orchardton (Vol. XIII).

His grandam, Princess of Drogan Mains, was sired by Hover-a-Blink of Drumjoan (892), one of the first champions of the Ayrshire breed.

Other noted sires that have been used in this herd in recent years are Cross of Knockdon (imp.), bred by Alexander Cross, of Maybole; Carrick Lad of Ste. Anne's, sired by Napoleon of Auchinbrain (imp.); Caspian of Ste. Anne's (imp.), bred by A. & A. Watson, Barboigh, Galston; and Saladin (6059), sire Silver King (imp.).

It is expected that there will be a large gathering of breeders of fancy cattle from all parts of Canada and the United States, as the animals to be sold are among the kings and queens in the famous dairy breed.

Vehicles will meet the Moccasin and noon express train at Summerstown Station, to take visitors to Glenhurst. See the advertisement on another page, and send for the catalogue.

CLYDESDALES AT AUCTION.

As announced on another page in this issue, B. V. Beharrell, Frome, Elgin Co., Ont., two miles from Shedden, M. C. R., who has sold his farm, will sell at auction on Tuesday, April 5th, all his stock, implements, etc. Included are 8 registered Clydesdales, comprising the imported stallion, Knockinlaw, 5 registered mares, weighing 1,500 to 1,900 lbs, combining extra size with quality, and 2 yearling stallion colts. The terms of sale are easy, and we are assured that the horses are both big and good.

Oberlin was the first coeducational college in this country. In the early days, they had a rule that, in case there were but one man and one woman in a room, at least one chair should be between them. One evening an instructor, passing one of the small sitting-rooms, was horrified at beholding a young man and a young woman occupying the same chair. "Sir," he demanded of the man student, "what is the meaning of this outrageous behavior? Do you not know the rules of the college?"

"Why—er—don't they say that if a man and a girl sit alone in a room, they shall have one chair between them?"

The case before the court was one involving the ownership of a tract of land, and the attorney for one of the parties to the suit was cross-examining a witness. "Now, Grimshaw," he said, "the property on which you live was originally a part of the twenty acres in dispute, was it not?"

"Yes, sir."

"And your title is based on the original title to that land, I presume?"

"Yes, sir."

"How long have you resided there?"

"Over twenty-one years."

"Have you had—now mark me—have you had twenty-one years' undisputed possession of that property?"

The witness hesitated a moment.

"Remember, Mr. Grimshaw," said the lawyer, raising his voice, "that you are under oath. Have you had twenty-one years' undisputed possession of that property?"

"It has been disputed once, and only once," answered the witness. "I found a nest of bumblebees in my backyard one day last summer."

In the general laugh that followed this answer the lawyer subsided.—Youth's Companion.

TRADE TOPIC.

In his timely and practical article on the lime-sulphur spray mixture and its preparation, Mr. Caesar recommends testing it with an hydrometer. We are fortunate in being able to announce in this same issue that an hydrometer may be obtained, sent post free, on receipt of the price (\$1.25), from the Geo. M. Hendry Co., Ltd., Chemical Glassware Supplies, 215-219 Victoria St., Toronto, Ont.

QUESTIONS AND ANSWERS.
Veterinary.

UNTHRIFTY PIGS.

Two pigs, about 24 months old, breathe hard, and keep their mouths open. Froth gathers in their mouths, and they do not feed well. About fifty other pigs in the same pen are all right. W. M. L.

Ans.—Isolate the two affected and feed on milk, shorts, and raw mangels. Turn them out for a few hours' exercise every fine day. The trouble is largely due to want of exercise. V.

CHRONIC INDIGESTION.

Nine-year-old mare has semi-diarrhea. She lies a good deal, and turns her upper lip up. T. B.

Ans.—This is chronic indigestion. Have her teeth dressed. Give her a purgative of 8 drams aloes and 2 drams ginger, and follow up with a tablespoonful of the following, three times daily, viz.: Equal parts sulphate of iron, gentian, ginger and nux vomica. V.

LAME MARE.

Mare goes sound when working on the farm, but goes lame in one fore foot when driving. Sometimes she does not show much lameness until after she has been driven some distance. W. G. W.

Ans.—A personal examination in cases of this kind is necessary in order to enable a veterinarian to make a definite diagnosis. I am of the opinion the mare is lame in the foot, and would advise repeatedly blistering the coronet. Get a blister made of two drams each of bino-fide of mercury and cantharides, mixed with two ounces vaseline. Clip the hair off for two inches high all around the hoof. Tie her so that she cannot bite the parts. Rub well with the blister once daily for two days. On the third day apply sweet oil. Turn in box stall now, and oil every day. As soon as the scale comes off, tie up and blister again, and after this, blister every four weeks as long as necessary. It is possible a perfect cure cannot be effected, but the above treatment will help, if the trouble is in the foot. V.

RINGBONE.

Four-year-old Thoroughbred has an enlargement like a ringbone between fetlock and pastern joint. Two veterinarians say it is not a ringbone and advise me to leave it alone. Another veterinarian says it is a false ringbone and should have been treated all winter. He wants to commence to treat it now, and says that after he has blistered it four times, there will be no danger of it causing any trouble or lameness. The colt is not lame, and I do not think the enlargement is increasing. J. McG.

Ans.—A false ringbone is one that does not involve a joint, and does not cause lameness. In a case like that, I do not see what benefit will be derived from blistering. The enlargement cannot be removed, and there is no lameness to cure, and as this growth is not enlarging, we are justified in assuming that inflammatory action has ceased. My idea is that it will be wise to leave it alone, so long as no dampness is shown. If the colt should show lameness, it will be better to have the ringbone fired and blistered. V.

H. C. Hamill, Box Grove, Ont., in ordering a change in his advertisement of Ayrshire cattle, writes: The bulls I offer are an extra-good lot, and have for dams the best cows in my herd, which, while making good at the pail, are up-to-date in type and show-yard form. As the bulls and heifers are all sired by Comrade of Woodroffe, they are an offering that is of the very best, and will be sold worth the money.

A SUCCESSFUL CAMPAIGN.

Mr. Green.—"Now, I'm going to tell you something, Ethel. Do you know that last night, at your party, your sister promised to marry me? I hope you'll forgive me for taking her away?" Little Ethel.—"Forgive you, Mr. Green! Of course I will. Why, that's what the party was for!"—Tit-Bits.

"Monarch" — THE MOST MODERN STRAIGHT-STAY FENCE

The most modern fence machinery in the Dominion makes the Monarch Stiff-Stay Fence. This machinery is blessed with almost human intelligence. It produces a fence just as you would build it yourself. It makes the "Monarch" with every strand of even length. Positively no short or long wires in the Monarch. And

every stay stands perfectly plumb when fence is stretched up. Thanks to this machinery, the Monarch lock is applied without requiring the strand or stay wires to be unduly kinked. But the whole story of the Monarch superiority cannot be told in this space, so write for catalogue giving complete details.

THE SAFE-LOCK FENCE



Is built on similar lines to the "Dillon," except that the lock is positive; cannot slip or get apart, and the strand wires are left absolutely straight (excepting for the usual coil), therefore are 200 pounds stronger than any ordinary fence strands.

The accompanying illustration shows the lock in detail and explains why the strands are left perfectly straight and still the lock cannot slip. Hard wire only used in strands, stays and locks.

If you're a Hustler, write us.

We've a fence-agency proposition we would like to submit to you. No other fence concern has a line equal to the Monarch and Safe-Lock combination.

The OWEN SOUND WIRE FENCE CO., Limited, Owen Sound, Ont.

Ewing's

PROFIT-MAKING SEEDS.

Do you realize that the little things in life often upset your most carefully-laid plans and turn what looked like success into failure? The Seeds you sow are little things, but think what depends upon their quality.

Your land may be excellent, the weather ideal, and prospects bright and rosy, but where do you stand if your Seeds refuse to grow?

You can't tell the strength and growing ability of Seeds by looking at them, and by trying to save a few cents on the purchase price, you run the risk of getting an inferior grade that will cut down your profit at the end of the year by many dollars.

Ewing's Seeds are reliable. They are grown from the strongest, healthiest and most perfect plants that can be produced. They are carefully selected, and will grow crops that will repay you for your work.

When you buy your seeds this year, specify "Ewing's" and be sure that you are right. Don't accept substitutes. If your dealer can't supply you, write us.

WRITE ANYWAY FOR OUR BIG ILLUSTRATED CATALOGUE. IT'S FREE, AND YOU WILL APPRECIATE IT.

WM. EWING & CO., Seedsmen, McGill St., Montreal.

Seeds

Dispersion Sale of Shorthorn Cattle!

The property of T. L. Pardo & Son, three miles west of Cedar Springs, Ont., one of the oldest-established herds in Western Ontario. Positively no reserve. On

TUESDAY, MAY 3RD, 1910

Consisting of the entire herd of 23 females and 8 bulls. Several imported, and nearly all from imported sire and dam. The foundation stock for this herd were selected from the very best herds of Scotland and Canada, with a strong view to milking qualities. Electric cars connect with all M. C. R. and P. M. trains, and will be met at Cedar Springs. Terms: Six months' credit will be given on bankable paper, or a discount of 6 per cent. per annum for cash. Lunch at noon. Sale to commence at 1 o'clock. Catalogue on application.

T. L. PARDO & SON, CEDAR SPRINGS, ONTARIO.

Capt. T. E. Robson, } Auctioneers. }
McColg & Harrington, }

Subscribe for "The Farmer's Advocate and Home Magazine." \$1.50 per Year in Advance.

Nitrate of Soda

The Modern High-Grade

Fertilizer

Cheapest, Cleanest
Odorless
Can be used anywhere on any crop
Convenient for use

Increases your farm values
\$3.00 worth of Nitrate alone on an acre of Grass has given an increased crop of 1000 lbs. of barn-cured Hay.

Prime hay has sold for \$25 per ton in New York this season.

Books on the crops which interest you will be sent free.

Send name and address on Postal Card

DR. W. S. MYERS
Nitrate Propaganda
71 Nassau Street, New York

CLEARING AUCTION SALE

Horses, Cattle, Implements, Furniture

On lots 10 and 11, Guelph Township, rear of O.A.C., on the premises of A. McQuillan,

On 7th Day of April, 1910

26 horses and colts, all of good quality; 3 imported mares 6 years old, and supposed to be in foal. The balance good working horses and Clyde colts.

Cattle, implements and furniture will also be sold.

Sale to commence at 10 o'clock; lunch provided.

\$10 and under cash, over that amount 9 months' credit on furnishing approved joint notes, or 5 per cent. per annum off for cash. The farm is sold to the Ontario Government.

C. CRAWLEY, Auctioneer.

7% Guaranteed

Investment Return. Principal Absolutely Safe. Established Business.

American Securities Co., Toronto.

Mandscheuri Seed Barley

Grown on new land from our 1908 first-prize seed field in Provincial Competition. Good, clean, medium-sized grain. Heavy yielder. J. & D. J. CAMPBELL, Fairview Farm, Woodville, Ont.

TEN THOUSAND PEOPLE are making poultry pay by The PEERLESS Way

You Can Do as Well
as any of them
We'll Help You



Let us ship you this and trust you for it. We pay freight and give you a 10-year guarantee

STANLEIGH, ALTA.
I bought 200 eggs in the store at Lloydminster and then put them in a lumber wagon and took a five-day journey to my homestead. Then put incubator under canvas tent where the temperature ranged from 50 degrees at night up to 95 when the sun was shining in the daytime, and after all this I hatched 114 good, healthy chicks that are doing well. I think your Peerless Incubator about as near perfection as is possible to get.

B. H. TWIDDLE
SANDY POINT, N.S.
I started the machine with 100 eggs. At the end of ten days I tested out twenty-eight and opening the shells I found every one infertile. This left 72 in the incubator, of these 61 came out fine healthy chickens, and the balance added in the shell or were too weak to get out.

E. HIRST
BRISTOL, ONT.
From my second hatch with the 120 Peerless Incubator I got 96 strong chicks. I am more than pleased with the machine.

MRS. TINSEN
Valuable Facts and Figures About Poultry-Freight FREE If You Write to:

We carry ample stocks in our big distributing Warehouses at Winnipeg, Regina, Calgary, Edmonton and Vancouver, for the convenience of our Western friends. Address all letters to Head Office at Pembroke, Ontario. They will receive prompt attention.

LEE Manufacturing Co., Limited PEMBROKE ONTARIO
460 Pembroke Avenue

More than ten thousand users of Peerless Incubators in Canada alone—and every one of them satisfied. Satisfied that the machine for practical hatching. Satisfied that Poultry-profit is easiest made The Peerless Way. Fully satisfied that the Peerless people not only make good with their hatching and brooding out fits, but actually do give the most valuable kind of help to their customers—help in rearing the chicks after they are hatched; help in feeding them right; help in bringing them quickest to market size or to egg-production; and help in finding a cash buyer who pays highest prices for Peerless poultry-products.

About The Only Business That Isn't Overdone
Poultry-raising, The Peerless Way, is one business there is plenty of room in—plenty. It pays better for the money and work it takes to run it than anything else you can do on a farm. It can be made to pay in any part of Canada, on a small scale or a big one. (One Peerless customer will sell 200,000 fowl this year—twenty-five CAR-LOADS!

Your Credit Is Good With Us—Use It Now!
Your need not let your means limit your ambition. You, or any other honest person, can have a Peerless Outfit on credit; terms that make it so easy to start poultry raising you never feel the outlay at all. And, when you do start, you are entitled FREE to the advice and help of our Board of Experts—men who developed The Poultry Yards of Canada, Limited, the largest poultry farm in Canada, and one of the most successful in the world. These men will help you over the rough spots, will tell you in detail just what to do and what not to do in order to make a go of poultry-raising for profit. Their knowledge and experience is at your command, free. This alone is worth dollars.

We Prepay The Freight To Save You Bother
You need not even pay the freight on the Outfit—we pay that for you, just to save you bother. We do more than that—we will agree to find you a spot-cash buyer who will pay the highest market prices for any poultry or eggs you want to sell. You needn't worry, so see, over finding a market. So, no matter how far away from a town you live, you are sure of a good customer for all you raise. Sit down NOW and ask for the full details of this rare offer. Use a post card if you haven't a stamp handy. Don't wait any longer. You run no risks at all, first or last, and the profit is waiting for you. Write for the book to-day. Just Address:

START NOW
START NOW
START NOW

TO EARN THE BIG SALARY LEARN RAILROADING.

There is no line of work to-day that pays the princely salaries as does that of Railroading. Mechanics and tradesmen, office and store clerks, street-railway men, etc., spend years in learning and training, only to find that they have entered overcrowded trades and lines, and are therefore compelled to accept small wages. Not so with Railroading.

FIREMEN AND BRAKEMEN
Earn from \$75 to \$150 per month.

With the rapid progress of Railway building in Canada, it takes only from 2 to 3 years to be advanced to Engineer or Conductor, whose salaries are from \$90 to \$185 per month.

You can earn that money. We can start you for it.

We teach and qualify you by mail in from 8 to 14 weeks without loss of time from your present work. Positions are secured; in fact, there are many openings right now if you were qualified to fill them. Our Course is the most complete treatise on the subject of Railroading in existence. We defy any school to show a course anywhere nearly as thorough. Don't tamper with your education by buying cheap bargain courses. Ours is the only School of its kind in Canada with text-books written for use on Canadian Railways.

Our free booklet tells all about our system of teaching. When writing, state age, weight and height.

Address: THE DOMINION RAILWAY SCHOOL, Dept. F, Winnipeg, Canada.

RAILWAY MEN SALARY \$75 TO \$150 PER MONTH
MECHANICS AND TRADESMEN SALARY \$60 TO \$90 PER MONTH
STREET RAILWAY MEN SALARY \$40 TO \$60
LABORERS FARM HANDS ETC \$15 TO \$30

SEED POTATOES

A Change of Seed is Always Advantageous.

I am offering 5,000 bushels pure-bred seed potatoes grown from imported English, Scotch and American seed. Extra First Early, First Early, Second Early, Main Crop, Late Main Crop. For prices, etc., address:

W. P. NILES, WELLINGTON, ONTARIO
Grower of Seed Peas, Beans, Potatoes, Oats and Barley.

Don't Throw it Away
USE MENDETS
They mend all leaks in all utensils—tin, brass, copper, granite, hot water bags, etc. Nosolder, cement or rivet. Any one can use them; fit any surface; two million in use. Send for sample pkg. 10c. Complete pkg. assorted sizes, 25c. postpaid. Agents wanted. Collette Mfg. Co., Dept. K, Collingwood, Ont.

CIDER PRESSES
The Original Mt. Gilead Hydraulic Press produces more cider from less apples than any other and is a BIG MONEY MAKER. Sizes 10 to 40 barrels daily. Also cider evaporators, apple-butter cookers, vinegar generators, etc. CATALOGUE FREE THE HYDRAULIC PRESS MFG. CO. 110 Lincoln Ave., Mt. Gilead, Ohio.

GOSSIP.

Mandscheuri seed barley is advertised for sale by J. & D. J. Campbell, of Woodville, Ont., whose farm is one of the cleanest and best in the country.

Dr. McEachran, Ormsby Grange Stock Farm, Ormstown, Quebec, in his advertisement of Clydesdales in this issue, announces that he has made arrangements for a special importation of yearling and two-year-old fillies this spring, and he invites correspondence with parties wishing to co-operate with him for the purpose of securing pedigreed stock at cost price, his object being to promote Clydesdale breeding in Canada.

J. H. M. Parker, of Lennoxville, Que., importer and breeder of Clydesdale horses, Shorthorn cattle, Leicester sheep and Chester White hogs, is one of the leading stockmen of Quebec, his animals being, essentially, high in quality, and bred on the most up-to-date and fashionable lines. Practically all his Clydesdales are imported, and Mr. Parker intends to make another importation this spring, as he finds the demand greater than he can supply. Parties wanting Clydesdales should bear this in mind, and look out for the announcement of their arrival. The Shorthorns are Scotch-bred and are strictly high-class in type and quality, and what is of especial interest to intending purchasers of a stock bull, is the fact that Mr. Parker has in his herd several Scotch-bred cows that give up to 60 lbs. a day of milk. Certainly some of the best-looking dairy Shorthorns the writer has ever seen. From such cows as these, for sale, are a limited number of young bulls. Mr. Parker is one of the most extensive importers and breeders of Chester White hogs in Canada; his herd is large and well-selected, but so great is the demand that there are none left old enough to ship before May, orders for which are now being booked.

TRADE TOPICS.

MODERN METHODS IN POTATO-GROWING.—Some of our readers would be astonished if they knew how much money some potato-growers are making by following modern methods. Time and again up-to-date potato-growers have demonstrated that a potato-planter, as well as a sprayer or sorter, will pay for itself in a single season, and without a large acreage either. A valuable work on "Potato Culture" is issued by the Aspinwall Manufacturing Company, written by their President, L. A. Aspinwall, who has devoted his entire life to the study of potato-culture, and the manufacture of implements for the economical handling of the crop. If you desire a copy, write either to their factory at Guelph, Ontario, or to their home office at Jackson, Mich., and mention the name of this paper, and a copy will be mailed promptly. The company has also just perfected broadcast and orchard attachments for their four-row sprayers, which will render these machines especially desirable to the general farmer. On special request, the company will be glad to mail you their catalogue, along with Mr. Aspinwall's work on "Potato Culture."

NIAGARA BRAND LIME-SULPHUR.—Lime-sulphur mixture, which has won such an enviable reputation for itself as a spray for San Jose and other scale insects, now seems likely to supersede the old reliable Bordeaux mixture to a considerable extent as a fungicide. It may be either homemade or purchased in concentrated form, to be diluted on using. The ordinary homemade lime-sulphur, prepared by boiling, is not entirely safe to use on trees after the foliage is out, but the commercial lime-sulphur may be used on trees either in the dormant state or in leaf, being diluted much more, of course, in the latter case. As the preparation of lime-sulphur is a rather disagreeable task, many sprayers, especially those with rather small orchards, will prefer to purchase the concentrated commercial material altogether. It is advertised in these columns by the Niagara Brand Spray Co., Ltd., of Burlington, Ont., who also handle lead arsenate.

Breeders!

Insure Your Mares
against risk of death
during foaling.

Why take a chance on
loss of valuable mare
when a

POLICY IN THE GENERAL

will protect you?

Write for particulars to
General Animals
Insurance
Co., Limited,
25 Toronto St., Toronto.

J. D. REESOR, Manager,
Western Ontario.

Telephone - No. 4154.



"ELECTRO BALM"
CURES ECZEMA,

Also Piles, Burns, Scalds, Chapped Hands and Face. Gentleman use it after shaving. This Balm is handled by the best firms, and is highly recommended by those who have used it.

Write for Free Sample
50c. a Box at all Dealers or upon receipt of price, from
THE ELECTRIC BEAN CHEMICAL CO.,
Ltd., OTTAWA.

Nitrate of Soda

Nitrate Sold in Original Bags
NITRATE AGENCIES CO.

- California.....321 Stimson Block, Los Angeles
-520 Bank San Jose Bldg., San Jose
- Georgia.....36 Bay Street, East, Savannah
- Illinois.....1204 Hartford Building, Chicago
- Louisiana.....305 Baronne St., New Orleans
- New York.....62 Stone Street, New York
- Virginia.....Citizens Bank Bldg., Norfolk
- Washington.....603 Oriental Block, Seattle
- Canada.....1103 Temple Bldg., Toronto
-Havana

Address Office Nearest You
Write for Quotations

When Writing Mention This Paper.

QUESTIONS AND ANSWERS.
Miscellaneous.

WATER TANK OVER KITCHEN.

I intend building a concrete kitchen adjoining brick house on which I wish to place a thirty-barrel water tank. Have a deep well and windmill close by. What strength of wall would be required to carry that amount of water? Could it be warmed from steam heater on stove in winter time to prevent freezing? I wish to use the water in house, and also pipe to barn. Perhaps some of your readers can give me some knowledge on the matter. J. S.

Ans.—As readers' opinions are asked for, the question is thrown open.

PRICE FOR BUILDING CEMENT WALL.

I am intending to raise my barn up and put a cement foundation under it. I would like you to tell me as best you can, how much it is worth per cubic foot to build cement walls, the contractor to furnish the forms. How much allowance for doors and windows? A. D. McL. Middlesex Co., Ont.

Ans.—About \$1.50 per cubic yard, or 5½ cents per cubic foot, is a fair price for the work of building cement wall, doors and windows not included in the measurement.

ITCHY LEGS.

I have a very hairy-legged Clydesdale horse, six years old. Last winter his legs got very itchy, and he would bite and rub them. In the summer they were not so bad, though they are very itchy this winter again. He seems healthy and in good condition. What is the trouble and cure? J. M.

Ans.—Many horses, especially beefy-legged horses, with coarse, wavy hair, are predisposed to this condition, and a permanent cure cannot be effected. Make a solution of corrosive sublimate, thirty grains to a quart of water, and rub well into the legs twice daily. Give him one ounce Fowler's Solution of Arsenic, night and morning, on his grain, or in a pint of water as a drench every alternate week as long as necessary. It would be good practice to purge him at once with 8 to 10 drams aloes, and 2 drams ginger.

SIDEBONES—WASTE CARBIDE AS FERTILIZER.

1. What is a cure for a sidebone?
2. Is waste carbide good as a fertilizer?
F. M.

Ans.—1. Sidebone cannot be removed by blistering, but persistent blistering or firing may check inflammation in the part, and so alleviate the pain or lameness, thus effecting a cure. When once the lameness of sidebone is cured, no purpose but deception can be served by trying to remove the enlargement.

2. The waste, or slush, from the acetylene-gas machine is composed largely of slaked lime, and it would have a fertilizing value about equal to lime. Though lime is found in abundance in most of our arable soils, yet many are much improved by the application of comparatively small quantities, say a ton to a ton and a half of good lime per acre.

TREATING PEAS FOR WEEVIL.

Please let me know the best method of treating peas for the "pea weevil."
G. H. L.

Ans.—The proper time to treat peas for the bug or weevil is as soon as possible after they are threshed. Many weevils by this time will have left the grain and taken refuge elsewhere.

Bisulphide of carbon is the chemical used, and a practically air-tight vessel for the peas is necessary. For the treatment of small quantities of seed by farmers, an ordinary coal-oil barrel is recommended. This will hold about five bushels, and may be treated with three ounces of bisulphide, which may be poured right onto the peas. The top should be closed tightly with a cap, or with fine sacks, dampened and laid smoothly on the barrel, and weighted boards laid over them. Leave untouched for 48 hours, and be careful to bring no light or fire near until after peas have been taken out, as the gas produced is very inflammable.

Edison Talent making Records for you

In what other way can you hear so cheaply and so comfortably such an array of talent as that engaged in making Amberol and Standard Records for the Edison Phonograph.

To mention only a few of these star entertainers, whose records are the joy of thousands, there are:

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| Albert Spalding | Harry Lauder |
| Vesta Tilley | Ada Jones |
| Nat Wills | Marshall P. Wilder |

There are several good records from each of these and a hundred others that you can hear at the dealers and own and hear in your own home for a trifle.

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| Edison Grand Opera Records | 85c. |
| Edison Phonographs | \$16.50 to \$162.50 |

There are Edison dealers everywhere. Go to the nearest and hear the Edison Phonograph play both Edison Standard and Amberol Records and get complete catalogs from your dealer or from us.

National Phonograph Co., 100 Lakeside Ave., Orange, N.J., U.S.A.



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Poles, Wire, Brackets, Insulators, Tools, Lightning Arresters, Ground Rods, Batteries, Insulated Wire, and everything necessary.

NO CHARGE for our experts' letters of advice, drawings, explanations, instructions, telling you in any language, non-technical, just how to build, own and operate your rural, town or long distance lines in a good but economical way and at a profit, thereby getting your own telephone free.

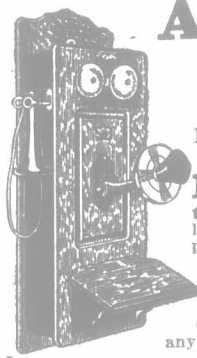
We are the largest, exclusive and the only bona-fide Independent Telephone and Switchboard makers in Canada or Great Britain.

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If you have a wagon needing new wheels, get **DOMINION LOW, WIDE-TIRE STEEL WHEELS.**

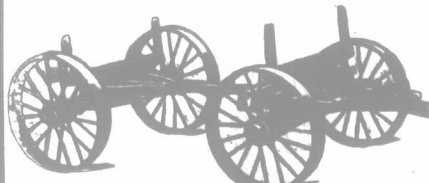
Stronger, lighter, cost little, save roads and make pulling easier. Fit any axle. Distributes strain equally. Out-last wooden wheels many times. Guaranteed not to break in rocky roads or coldest weather.

The wide tires and low wheels of

DOMINION HANDY WAGON

make pulling easy. It saves half in time and labor in loading and unloading. Low and convenient—no high lifting. Can be changed into platform wagon in a few minutes. Enables one man to do work of two. Lasts a lifetime. Parts arranged for easiest draft. Write for free booklet on Wheels and Wagon.

DOMINION WROUGHT IRON WHEEL CO., Orillia, Ontario, Limited.



HOMESEEKERS' EXCURSIONS

VIA CANADIAN PACIFIC TO **WESTERN CANADA**

LOW ROUND TRIP RATES

GOING DATES

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| Apr. 5, 19 | June 14, 28 | Aug. 9, 23 |
| May 3, 17, 31 | July 12, 26 | Sept. 6, 20 |

THROUGH SPECIAL TRAINS TORONTO TO WINNIPEG AND WEST

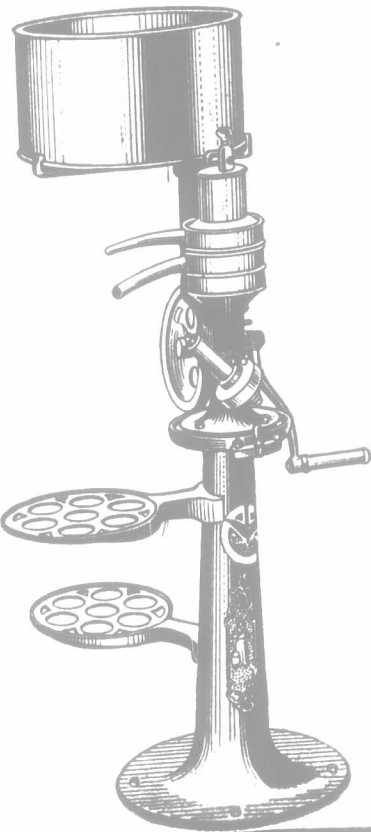
Leave Toronto 2.00 p.m. on above days

Through First and Second Class Coaches, Colonist and Tourist Sleepers.

Apply to nearest C.P.R. Agent or write R. L. Thompson, D.P.A., Toronto.

ASK FOR HOMESEEKERS' PAMPHLET

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, 50-52 Peter Street, Toronto.



The CAPITAL is the Cream Separator that will "Buy Itself" For You.

As soon as you have read this advertisement, sit down and write a post card for The Capital book—the book that not only tells the story of the easy-running, cream-saving separator, but that tells how you can put The Capital in your own dairy practically without costing you a cent.

The book also tells all about the wonderful Capital gears, about their perfect meshing and non-wearing qualities—how they run in oil—how an automatic clutch stops them running the minute you let go of the handle—and about how they give the light, three-and-a-half-pound bowl, 7,000 revolutions a minute.

It tells how and why The Capital skims closer—why The Capital wastes less than one-fifth the cream that other separators waste—and then explains how the machine can be made sweet and clean in two minutes after you are through using it.

This book is full of hard-and-fast facts—separator facts—which every dairyman owes it to himself to know; facts which will prove a revelation to the dairyman who is not familiar with The Capital.

Write for the book to-day—NOW.

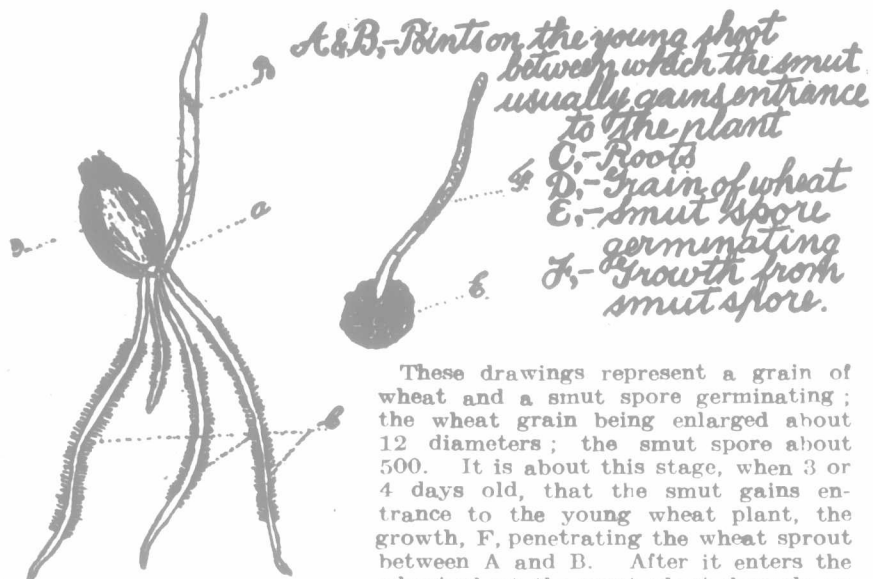
THE NATIONAL MFG. CO., LIMITED,

Factories:—Ottawa and Brockville.

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SMUT

and its attack upon grain



longer on the spore for nourishment, but feeds entirely on the wheat plant.

The next drawing will show how the smut grows in the wheat stem.

Formaldehyde KILLS the Smut Spore

WATCH FOR THE NEXT DRAWINGS

Pamphlet regarding Smut mailed free on request to

The Standard Chemical Co. of Toronto, Ltd.

MANNING CHAMBERS, SALES DEPT. TORONTO

DISPERSION SALE OF OVER

30 Head Holstein-Friesian Cattle 30

THE ENTIRE MAPLE GLEN HERD, AT GLEN BUELL, ONT.

APRIL 7, 1910, COMMENCING 1 P. M.

The great stock bull, Oakland Sir Maida, with two records over 30 lbs. in his pedigree; two cows, with records over 26-lb. test each seven days, another daughter of a 32-lb. cow; two others half-sisters to Francy 3rd 29.16; seven young service bulls, some with 30-lb. breeding; nine high-bred heifers coming one year old. In fact, some of highest-record cows ever offered in public sale in Canada. No reserve, as I am going to Alberta. Catalogue ready March 25th. Terms: Cash, or bankable paper; 5 months' at 6 per cent. interest. The Brockville and Westport train leaving Brockville 9.30 a. m. stops at farm. All B. and W. trains stop at farm that day.

G. A. GILROY, GLEN BUELL, ONTARIO

Col. B. V. Kelly, Syracuse, N. Y., Auctioneer.

\$15.00 AND UPWARDS. The DOMO Separator



Excels any other separator in the world. Our liberal offer enables you to prove this. Our prices for all capacities, SIX SIZES, is astonishingly low. The quality is HIGH. Our machines are well built, up-to-date, handsomely finished, Skim Closer, Turn Easier, are Durable and Guaranteed. Thousands in use. We send them to you on trial, FREIGHT PREPAID, and if YOU are not satisfied, return it at our expense. We take ALL the risk. Can we offer anything more fair? Write to-day for our circular "A," which gives Our Special Trial Offer, Testimonials, Remarkably Low Prices, and Easy Terms of Payment. It's Free.

DOMO SEPARATOR COMPANY,
Brighton, Ontario.

IMPORTANT DISPERSION SALE

60 Pure-bred and High-grade Ayrshires

KERRWOOD, ONTARIO, TUESDAY, APRIL 12th, 1910.

Premises adjoin G. T. R. As the proprietor is retiring, the entire herd will be sold without reserve, consisting of 6 males and 54 females—cows in calf or with calves at foot. There will also be offered 300 acres of land in Metcalfe Township. Terms made known on day of sale. For live stock: \$10 or under, cash; over that amount, 8 months' credit on approved notes; 6 per cent. per annum off for cash. T. F. HAWKEN, AUCTIONEER. FRANK INCH, PROPRIETOR, KERRWOOD, ONTARIO.

Please Remember to Mention "The Farmer's Advocate" When Writing

QUESTIONS AND ANSWERS.

Miscellaneous.

NOT POWER ENOUGH TO BE SERVICEABLE.

There is a creek thirty rods from barn, on which I can secure a stream of 1½ inches, with a fall of fifteen feet. By this, can I develop any power, and how much?

A. R.

Ans.—With this amount of water, you could not develop sufficient power to be of any service to you.

W. H. D.

SECURING A LOAN.

Deceased left by will \$1,000 to elder son, with provision that if he died before 21 years, legacy goes to younger son. In what way can I get security from elder son, if I lend him money for an education?

A. R.

Ontario.

Ans.—He is not in a position to legally secure you. In doing what is suggested, you would be mainly trusting to his honesty and his surviving the period mentioned, and, assuming also that the amount of the legacy will be duly forthcoming from the estate, upon this son's attainment of the age mentioned. Subject to what we have said, we would suggest that the son, although yet a minor, should for such loan, assign to you the legacy, and that you should thereupon notify the executors of the assignment. Insurance upon the legatee's life might also be arranged in your favor.

CAPACITY OF SILO—HORSES IN POOR FLESH.

1. What would be the capacity of an octagonal or eight-sided silo, fourteen feet in diameter and twenty-five feet high; also how many acres of corn would it take to fill a silo of the above dimensions?

2. Have a team of geldings weighing about 1,300 pounds each that are feeling well, but are in poor flesh; take them out on the halter and they kick and play. They are getting hay and oats three times a day and are not doing much; probably three days' work in a week, if it was all put together. They are four and six years old, and getting a gallon of oats at a feed. What would build them up in flesh and make their coats sleek?

A. E. H.

Dundas Co., Ont.

Ans.—1. If full of settled silage, such a silo would contain about 85 tons. Six acres of fairly-heavy corn would fill it.

2. Have your veterinarian examine the teeth of horses, and dress them, if necessary. Feed each two quarts of bran in place of half the evening feed of oats, and give a carrot or two or other roots every day; also half a pint of linseed meal twice weekly. Allow salt as much as they wish.

RAILWAY EXPROPRIATIONS.

1. What can I compel the railway to pay me for going through my farm? The branch goes through it now and cuts off six rods. Now they are going in at one corner and out at the other. They make a curve from one corner to the other.

2. How close can they come to my house and barn? I value this farm at \$6,000.

3. Can I compel them to pay me \$3,000?

4. Would it be wise for me to let it go to the Railway Commissioners for arbitration?

5. Please let me know what way to go about it.

6. Have I any right to take what they offer, if I think it not enough?

7. Can I stop them from working until they settle with me?

Ans.—1 and 3. We are not in a position to judge.

2. As close as may be really necessary for the proper purposes of the railway.

4 and 5. If the offer of the railway company is unreasonably low, you should let the matter go to arbitration, instructing a solicitor at the outset to attend to it on your behalf.

6. You may, of course, accept as little as you please, but you are not obliged to do so.

7. No.

Make Them Sound



A lame horse is a dead loss. Spavin, Curb, Splint, Ringbone, Swollen Joints and Bony Growths will cure themselves. Yet you can cure these troubles and make your lame horse sound with

Kendall's Spavin Cure

just as thousands have done, and are doing today.

In the 40 years that this world's famous remedy has been on the market, Kendall's Spavin Cure has saved millions of dollars to horse owners.

Mounds, P. O., Olds, Alta.

"I have used Kendall's Spavin Cure for a number of years with great success, and I think it can't be beaten as an all-around stable liniment for Kicks, Strains, Swelling of all kinds, Ringbone and Spavin".

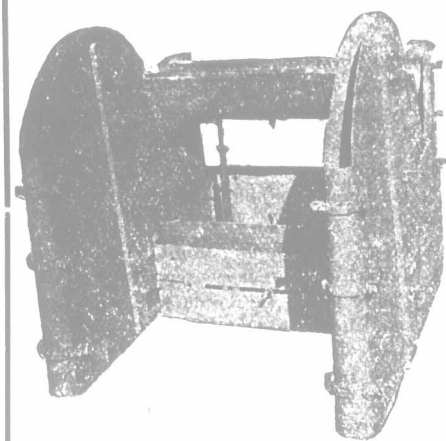
ARTHUR FLETCHER.

No telling when you will need it. Get a bottle now—\$1—6 for \$5.

Our book—"A Treatise On The Horse"—free at your druggists or write us

Dr. B. J. KENDALL CO., Enoeburg Falls, Vt.

STABLE MOULDS



The new Ideal Manger, Partition and Water System have solved the problem. Patented Oct. 26, 1909, and sold by A. D. Schmidt, North Woolwich, Ont. An illustration of moulds will be mailed on application. Apply to

A. D. SCHMIDT, North Woolwich, Ont.

AGENTS—\$33.30 A WEEK

Why not make it? Jack Wood did it! He writes— "Hurry up 100 more—sold first lot in 2 days—best seller I ever saw." Hundreds of agents coining money—\$5.60 worth of tools for the price of one. Wonderful invention—drop forged from finest steel. Nickel Plated all over. Astonishing low price to agents—1.20 ordered by one man. Get our grand confidential proposition quick. Sample free—don't delay—experience not needed—write at once. THOMAS MFG. CO., 2114 Wayne St., DAYTON, OHIO

Peachblow Clydesdales and Ayrshires!

CLYDEDES—2 four-year registered stallions, one imported. AYRSHIRE—3 very choice bull calves, all registered. All good colors, and from good milking dams. Prices right.

R. T. BROWNLEE, HEMMINGFORD, QUE.

Imp. Clydesdale Stallion for Sale, rising six years old; good stock-getter, weighs about 1,800 lbs. Will be sold reasonable and on easy terms. Address: BOX 25, WEST MONKTON, ONT.

SPRAY TO KILL

all the parasites and fungi that lay waste your garden and orchard. You pay dearly for those you allow to escape.

"VANCO" Spray Chemicals will enable you to make a sure job of your spraying. They are much more reliable and effective than homemade solutions because they are prepared and blended by skilled chemists, with an accuracy impossible to one who is making up a small quantity at home.

"VANCO" Lime Sulphur Solution

shows a uniformly higher percentage of active sulphur than other brands. It is most effective for San José Scale, Aphid, Bud Moth, Apple and Pear Scabs and similar fungi and parasites. Free from sediment, and sprays freely. \$8.00 per bbl., f. o. b. Toronto. One barrel makes 12 for spring or 50 for summer spray.

"VANCO" Lead Arsenate

contains from 15% to 16% Arsenic Oxide and only 40% moisture average. It is the best all-around spray for Codling Moths, Potato Bugs, Canker Worms and other leaf-eating insects.

10c. to 13c. per lb. according to quantity.

Club your orders and save on freight

We introduce the idea of High Quality at Lowest Price. "VANCO" Spray Chemicals are prepared by practical men, and have successfully passed Government analyses and practical tests.

Chemical Laboratories Limited

126-136 Van Horne Street, - - TORONTO.

Clipped Horses Are Worth More

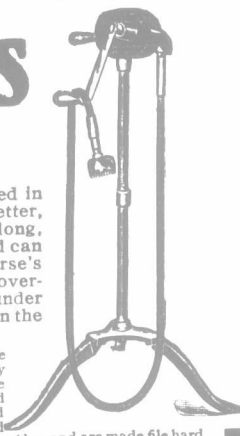
Horse doctors and authorities recommend that horses be clipped in the spring. This applies particularly to farm horses. They work better, sleep better, and keep in better condition if they are without a long, heavy, sweaty coat of hair. They are less liable to catch cold and can be cleaned in one-fourth the usual time. Long hair saps a horse's energy. No man can work in a heavy fur overcoat all the time, neither can a horse work under similar conditions. This is especially true in the spring when a horse is soft.



Clipping is Easy. The Stewart machine is so simple that anybody can clip horses by guiding the knife while the crank is turned. We have made it so durable that it will last a life-time, giving good service all the time; this wonderful durability is obtained because working parts are enclosed from dust and dirt and run in oil, and because all gears are cut from the solid steel bar and are made file hard.

The Stewart No. 1 Bearing Horse Clipping Machine is a better machine than above stated—but it COSTS LESS than most others. This is because there are FEW PARTS and NO DELICATE MECHANISM. It's as simply made as a PAPER-KNIFE. YOU CAN GET IT FROM YOUR DEALER FOR ONLY \$9.75. GET IT NOW. IF YOUR DEALER HASN'T IT WRITE US DIRECT.

CHICAGO FLEXIBLE SHAFT CO. 110 La Salle Ave., Chicago



20 Imp. Percheron Stallions 20

Our 1909 importation of 20 Percheron stallions, from 1 to 5 years of age, are now in our stables. Up to over a ton in weight. Big, stylish, choke-full of flashy quality, and faultless movers. Prizewinners among them. The best lot ever imported to Canada. All are for sale on terms to suit.

HAMILTON & HAWTHORNE,
Simcoe, - - - Ontario



Maher's Horse Exchange

16 to 28 Hayden Street TORONTO (Near cor. Yonge and Bloor)

AUCTION SALES of Horses, Carriages, Harness, etc., every MONDAY and THURSDAY at 11 a.m. PRIVATE SALES every day. We have always a large quantity of horses on hand for Auction or Private Sale. We have the biggest and best sale ring and stables in Canada. We hitch and try all horses for out-of-town buyers, and guarantee satisfaction. WE SELL STRICTLY ON COMMISSION.

P. MAHER, Proprietor. GEO. JACKSON, Auctioneer.

T. H. HASSARD'S NEW IMPORTATION!

MY NEW IMPORTATION OF Clydesdale Stallions and Fillies

are now in my stables at Markham, Ont., and, as usual, I have a big range for selection, of a type, breeding and quality seldom equalled, never excelled, by any previous importation. Call and see them. Phone connection.

T. H. HASSARD, Markham, Ont.

Imported Clydesdales

We have a number of newly-imported stallions on hand in our stables in London, Ont., including some very large don, another consignment, stallions and fillies, sailed Saturday, October 16th, from Glasgow.

DALGETY BROS., LONDON, ONTARIO.

ORMSBY GRANGE STOCK FARM, ORMSTOWN, P. QUE.

I have arranged to make a special importation of yearling and 2-year-old fillies this spring for the benefit of those wishing to obtain pedigreed stock at cost price. Those wishing to co-operate with me in this, should write me at once; the saving will be about one-half of the prices charged by agents in Canada.

Duncan McEachran.
My object is to promote Clyde breeding in Canada.

QUESTIONS AND ANSWERS. Miscellaneous.

LEASE FROM OWNER OF LIFE ESTATE.

A dies, leaving farm to son and wife during their lifetime, and at their death farm is to be sold and money divided between son's children. Son has died, and son's widow, through her agent, rents farm to B for a term of five years. If widow dies before B's time is up, and farm is sold, can B hold farm for balance of his term? SUBSCRIBER.

Ontario.

Ans.—No.

FRIGHTENED HORSE DOING DAMAGE.

If I tie my horse in front of B's store and express office, while doing business there, with chain that he has there for that purpose snapped in bit of bridle, and horse takes fright, breaks loose and swings vehicle around and breaks B's window—the horse always being used to being tied by the bit and not a skittish animal, never having broken loose before—am I liable for damage done to window? SUBSCRIBER.

Ontario.

Ans.—We do not see that you are.

SMALL SILO.

What kind and how large a silo would you advise to be built on a 14-acre farm, having three cows? Would like to have enough silage that a little could be fed during summer when pasture becomes scarce. How much corn should be sown, and would you advise to plant it or sow it? E. H.

Ans.—Would not advise building a silo for three cows. The proportion of waste and deteriorated silage would be too large in such a small silo, owing to the relatively large perimeter, and to the interference with settling. If the experiment were tried, would suggest a stave silo about 6 feet in diameter and 22 feet high.

SPRING-TOOTH VS. RIGID-TOOTH CULTIVATORS.

I am intending to purchase a three-horse riding cultivator, suitable for land that is infested with weeds and couch grass, and I am writing to ask your opinion of what kind would be the better—stiff-tooth or spring-tooth? F. G. B.

Ans.—For couch grass alone the spring-tooth is to be preferred. Spring-tooth cultivators can be purchased provided with plates that will cut the whole surface, and such an implement would be generally serviceable, although for thistles and weeds of that character the rigid-tooth cultivator, with broad shares that will shave the whole surface, overlapping somewhat, is superior. The rigid-tooth cultivator is also better adapted to produce a uniformly deep tith in land which has stiff clay spots, but is hard on the horses and also on itself in stony ground. Both spring-tooth and rigid-tooth cultivators have their adaptations. A combination would be the ideal thing.

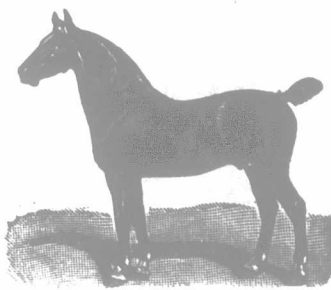
ABORTION IN EWES.

Our sheep are aborting their lambs this spring a month before their time. Have been fed on clover hay, principally, some cornstalks well cured, and a little clover chaff from clover seed. They have been fed mostly outside, and have a large shed for shelter and a wheat stack to run around. What is the cause and remedy? H. G. M.

Ans.—Contagious abortion in ewes is very rare in this country. Indeed, in forty years' experience with sheep we have not had or known of a case of that class. Odd cases of a single ewe aborting we have known, and these have been attributed to injuries effected by crowding through narrow doorways or being frightened by dogs, to eating frozen turnips or to overdoses of salt. In England abortion is said to sometimes appear in epidemic form, but it is supposed to be more often due to errors in feeding than to contagious disorders. In your case it may be owing to ergot, or some weed in the clover hay or chaff. Abortions should be removed from the flock, and should receive an injection into the vagina of a weak solution of carbolic acid, warm.

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

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

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

AGENTS 200% PROFIT



Agents Coining Money

Thousands being sold. Great big money getter for agents. Handy Automatic Hame Fastener. No straps—no buckles—no chains—no freezing of fingers in cold weather. A square deal offer. Horsemen stop—look—listen—buy one—then a dozen. Agent writes, "Hurry up my order—sold out first day." Only says, "Made \$8.00 yesterday—rush order." This is only one of over 2,000 fast selling articles we furnish agents: Write today—now—for our latest proposition. Headquarters for agents. No experience needed. Just write—we show how. We want agents—crew managers—men or women—all or part time—home or traveling—to show, take orders for our goods. Write today for FREE CATALOG. You will make more money than ever before. Costs nothing to investigate—write at once—drop everything else—act quick—time short—let us start you—demand is big—be a Thomas Agent and get the money.

THOMAS MFG. CO., 544 Wayne St., Dayton, Ohio.

Clydesdales and Percherons



To my many friends, and the public generally, I wish to say that in my stables at Weston, Ont., I have my 1909 importation of 10 Clydesdale and 8 Percheron stallions; a lot that for true draft character, faultless unsplanning, choice quality and breeding were never surpassed. Terms to suit and prices right.

J. B. HOGATE,
Weston, Ont., and Brandon, Man.
W. D. COLBY, Mgr.
Weston, Ont.

DUNHAMS' PERCHERONS



46 splendid Percheron stallions and mares arrived FEBRUARY 9th. These, added to our present stock, offer intending purchasers the finest collection in America. If you want the best horses, horses with bone, quality, size, action and best breeding, stallions or mares; if you want fair and liberal treatment; if you want lowest prices consistent with good merchandise, visit Oaklawn. Catalog shows the place and the horses.

W. S., J. B. & B. Dunham, Wayne, Ill.

Don't Have a Blind One

Wonderful Discovery "VISIO"

MOON BLINDNESS and all Diseases of the Eye successfully treated with this NEW REMEDY.

Money Back if it fails to cure. \$2.00 per bottle postpaid on receipt of price.

Viola Remedy Ass'n., Dept. L.S., 1923 Wabash Av., Chicago, Ill.

MESSRS. HICKMAN & SCRUBY

Court Lodge, Egerton, Kent England. Export pedigree live stock of every description. Owing to rapid increase in business, Mr. L. C. Scruby has been taken into partnership. During the spring months the export of horses will be a specialty. We are at this business all the year round, and can do better for you than you can do for yourself, even if you do come over to do your own business. Send us your orders, and we will do the best we can for you. Nobody can do more.



Locates Lameness

Simply bathe the limbs with Tuttle's Elixir; then watch for the little water blisters. That's where your horse is lame. Where there is no lameness, the Elixir will dry out like water.

Tuttle's Elixir

It is the best horse insurance possible. A sure cure for colic and all common ailments that handicap and decrease the value of your horse.

Best Leg and Body Wash.

Because by adding water the lotion can be made just the desired strength for the true condition of your own horse. In use in over 100,000 stables.

TUTTLE'S ELIXIR CO., 205 Beverly St., Boston, Mass.

Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid)

is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser

describes and illustrates all kinds of blemishes and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

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

Horse Breeders

Artificial MARE IMPREGNATORS

We GUARANTEE you can get from 2 to 6 mares in foal from one service of stallion or jack. Increase the profits from your breeding stables by using these impregnators. No experience necessary to use them successfully. Prices, \$3.00 to \$5.00 each prepaid.

Increase Your Profits

Shoe Boils, Capped Hock, Bursitis ARE HARD TO CURE, yet ABSORBINE

will remove them and leave no blemishes. Does not blister or remove the hair. Cures any puff or swelling. Horse can be worked. \$2.00 per bottle. **Free, ABSORBINE, JR.** (man-kind, \$1 and \$2 per bottle). For Boils, Bruises, Old Sores, Swellings, Gouges, Varicose Veins, Varicosities, Allays Pain. Your druggist can supply and give references. Will tell you more if you write. Manufactured only by W. F. YOUNG, P. O. 258 Temple St., Springfield, Mass. Canadian Agents: Lyman's Ltd., Montreal.

For Sale: A Very Choice Five-year-old Imp. Clyde Stallion

Will weigh a ton. Is smooth, a beautiful color, and leaving choice stock.

WM. MEHAREY, RUSSELL, ONTARIO.

For Sale: REGISTERED HACKNEY STALLION, COCK ROBIN.

Three years old; 15 1/2 hands; chestnut; hind feet white. Sire Commodore 3rd, imp., (6695), by Chocolate Jr. (4185). Dam Ada Adair (181), by Robin Adair 2nd, imp., (3907). For description, terms, etc., address: G. W. CLEMONS, ST. GEORGE, ONT.

Imported Clydesdales Imported and Canadian-bred Clydesdale mares and fillies, from 1 to 5 years of age, of most fashionable breeding, up to a big size, with character and quality. A large range for selection. Phone connection. Alex. F. McIlven, St. Thomas, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

SPRAYERS.

As I have been reading about oyster-shell scale I think my orchard is so attacked, and would like you to give, through your columns, some names of sprayers which you would advise to use for orchard spraying. B. H.

Ans.—Consult our advertising columns.

TREASURER'S REPORT AND AUDIT.

Is it best, and is it right or proper and according to Parliamentary rules, at an annual meeting, to adopt by motion the Treasurer's report, before having heard the Auditors' report?

A CAUTIOUS FARMER.

Ontario.

Ans.—We think not. The Treasurer's report ought not to be passed upon until the Auditors' certificate respecting it has been heard and considered.

FAILING QUARTER OF UDDER.

Jersey heifer is going dry in one quarter of udder. Can anything be done? She has been milking since May. Would milking that quarter first help any?

A SUBSCRIBER.

Ans.—It is doubtful whether any treatment will help. Milking the failing quarter first might be tried; also applying goose oil, repeatedly, well rubbed on the quarter. Pumping the quarter full of air, as for milk fever, has been reported as helpful in such cases. The teat tube should be plunged in boiling water before using.

CAUSE OF EGG-EATING.

What is the reason that hens eat their eggs? C. B. H.

Ans.—Because they like the taste of them. They find out that eggs are good and that they can be eaten by first getting a taste of a broken or soft-shelled one. From that it is only a step to habitual egg-eating. Lack of meat food and lime probably accentuates the desire for egg shell and egg meat. Feeding hens large pieces of egg shell without first crushing it up is believed by some to endanger the formation of an egg-eating habit.

POULTRY ASSOCIATION—BAB-CKOCK TESTER.

1. Whom must I address to get the literature of the Poultry Association?
2. Where can I get a Babcock tester, with directions for using? About what is the price? T. J. L.

Ans.—1. Address A. P. Westervelt, Parliament Buildings, Toronto, Secretary of the Western Ontario Poultry Association.

2. Address any dairy-supply house, for addresses of which see "The Farmer's Advocate," notably the Christmas Number. Price will range from five or six dollars for a small four-bottle tester, upwards.

DO NOT SOW ALFALFA ON SOD.

Would alfalfa grow on sod, and would it do on sandy ground? The sod was turned down last fall, and I would like to seed it down this spring with alfalfa. R. W.

Ans.—The chances are your alfalfa would be soon choked out by blue grass, or some other kind of grass. Take off a crop of corn or peas, and get the land into first-class shape to seed to alfalfa next year. If you can put some manure on the land this spring, do so. In the fall or early next spring (1911) apply thirty to fifty bushels of wood ashes per acre. Try also some lime.

WHEAT ON FALL-PLOWED SOD.

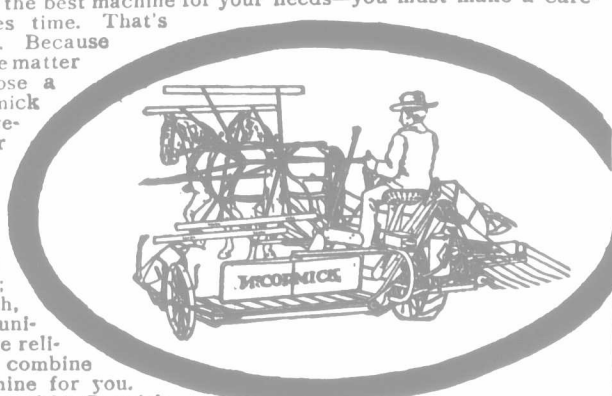
I have three acres of heavy clay land, plowed last fall for the first time, would like to sow with wheat. Would you advise doing so? What variety should I sow, and at what rate per acre? D. McC.

Ans.—Unless there is some special reason to the contrary, we would recommend first taking off a crop of corn. However, a good crop of wheat might be obtained. Beyond the advice to sow a good yielding and all-round meritorious kind, we have no special suggestions to offer regarding varieties. Red Fife is hard to beat, though Wild Goose out-yields it, and hence is better for feed purposes. Sow seven or eight pecks per acre.

START TODAY TO GET READY FOR HARVEST TIME

DON'T put it off any longer. From now on 'till harvest you are going to be busier every day. Your grain is likely to ripen all at once. Then you'll want to cut it quickly. You can't do it unless you are prepared with the best harvesting machines—in proper condition.

To be sure of getting the best machine for your needs—you must make a careful selection. That takes time. That's why we say start today. Because we know if you go into the matter carefully you will choose a McCormick. The McCormick Binder will meet your requirements as no other machine will. It is built to meet the conditions encountered on the Canadian farm. It has stood the test of years. Its capacity to handle grain that is tangled or down; its simplicity, strength, durability, light draft, uniform, good work and the reliable work of its knoter, combine to make it the best machine for you.



Other farm machines of McCormick make, a long line, are not less valuable than the Binder. The line includes: Harvesting Machines, Binder Twine, Mowers, Tedders, Hay Rakes and Side Delivery Rakes, Hay Loaders, Disk, Shoe and Hoe Drills, Cultivators and Seeders, Smoothing Spring Tooth and Disk Harrows, Land Rollers and Scufflers. McCormick dealers also handle Gasoline Engines, Cream Separators, Hay Presses, Wagons, Sleighs and Manure Spreaders.

Every McCormick everywhere is recognized by farmers as a leader in its class. But we don't ask you to take our word for this. We say—Start today to investigate so you will have time to make a proper decision.

For catalogue and specific information on any McCormick machine, call on the local dealer or write direct to nearest branch house.

CANADIAN BRANCHES: International Harvester Company of America at Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg, Yorkton.

INTERNATIONAL HARVESTER COMPANY OF AMERICA (Incorporated) Chicago U S A



UNION STOCK - YARDS Horse Exchange WEST TORONTO, CANADA.

The Greatest Wholesale and Retail Horse Commission Market.

Auction sales of Horses, Carriages, Harness, etc., every Monday and Wednesday. Horses and harness on hand for private sale every day.

The largest, best equipped and most sanitary stables in Canada. Half-mile of railway loading chutes at stable door. Quarter-mile open track for showing horses. Northwest trade a specialty. HERBERT SMITH, Manager. (Late Grand's Repository.)

CLYDESDALES and HACKNEYS

We have for sale a few choice Clydesdale mares, imported and Canadian-bred; also some Canadian-bred Clydesdale stallions. Hackney stallions and mares for sale always. Long-distance phone. Hodgkinson & Tisdale, Beaverton, Ont. G. T. R. and C. N. R.

IMPORTED CLYDESDALE FILLIES

I have still on hand six Clydesdale fillies. They are big, smooth fillies, exceptionally well bred, and their underpinning is the kind Canadians like. I have only one stallion left, a right good one. My prices are as low as any man's in the business. Phone connection. GEO. G. STEWART, HOWICK, QUEBEC.

Imported Clydesdales

My first importation for 1910 has just arrived. Stallions up to a ton in weight, from 1 to 5 years of age. Draft character and faultless underpinning are a predominating feature. Also a few big choice fillies 2 and 3 years of age. WM. COLQUHOUN, MITCHELL, ONT. Phone connection.

WAVERLY CLYDESDALES AND HACKNEYS

My 1910 importation of Clydesdale stallions and fillies, and Hackney stallions and fillies, are now in my barns. One and two-year-old Clyde fillies of a character and quality never before excelled. My Hackney stud was never so strong in high-class animals. All are for sale and prices right. ROBT BEITH, BOWMANVILLE, ONT.

Clydesdales Home from the Shows

Intending purchasers would do well to see them before buying. Prices moderate. Myrtle, C. P. R. Brooklin G. T. R. SMITH & RICHARDSON, Columbus, Ont.

Imported Clydesdales

My new importation of Clydesdale stallions for 1910 have arrived. They were selected to comply with the Canadian standard, combining size, style, quality and faultless underpinning with Scotland's richest blood. They will be priced right, and on terms to suit. C. W. BARBER, GATINEAU PT., QUEBEC.

IMPORTED CLYDESDALES AND HACKNEYS

In my stables at Ingersoll, Ont., I have always on hand Clydesdale stallions and fillies, and Hackney stallions, personally selected in Scotland for their high-class type, quality and breeding. Let me know your wants. W. E. BUTLER, INGERSOLL, ONT.

Clydesdales and Hackneys.

We have still for sale several good Clydesdale Stallions, also our prizewinning Hackney Stallion, Blanch Surprise, and a few good Clydesdale and Hackney Mares. All of which will be sold on reasonable terms. John A. Boag & Son, Bayview Farm, Queensville, Ont. Phone connection.

CLYDESDALES, Imported and Canadian-bred.

I have on other 5 yrs. old; 2 Canadian-bred Clydesdale Stallions, one 4, the French Coach Stallion, 4 yrs. old; one Shire Stallion, and the noted Hackney Stallion, Chocolate Jr. I will sell these horses cheap for quick sale. T. D. Elliott, Bolton, Ont.

Send No Money Until You've Seen and Become Convinced this STEEL WATER TROUGH is Indispensable

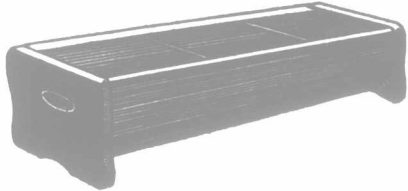
Up-to-date farmers are replacing their unsanitary wooden water troughs with our sanitary STEEL WATER TROUGHS. You will do the same once you have become convinced of the superiority of our STEEL TROUGHS. So we ask you to mail us your name and address. Then we will send you one of our STEEL TROUGHS entirely at our expense. You don't pay us a cent until you are sure our STEEL TROUGH is simply indispensable to you. That's surely a square deal?

Our STEEL TROUGHS are the only absolutely sanitary water troughs. No corners or cracks for dirt to accumulate or germs to breed. Serious diseases, resulting in loss of cattle, are often caused from unsanitary conditions of wooden drinking troughs. Our troughs are made of heavy sheet steel, and extra heavily galvanized. Will not leak. Cannot rust. Nothing breakable. Nothing that will require repairs. Cattle cannot gnaw them. Practically everlasting. Standard lengths of troughs are 8 ft. and 12 ft., and widths across top, 23 ins. and 27 ins. Special sizes made to order.

Shall we send our booklet giving full description? Better still, tell us to send the trough to you at our expense.

Address: Dept. W.,

The Steel Trough and Machine Co., Limited, Tweed, Ont.



IT WILL ASTONISH YOU.



Everybody is astonished at the marvellous gain that comes to their home and to themselves by the use of

RAMSAYS PAINTS

Don't you think it would be better for you to enquire about these paints? Don't use poor paints—they cost too much. Don't use dear paints—they cost too much. Use Ramsay's Paints, sold at just the right price for correct painting. We issue a handsome booklet on house painting. You should have it. Write us for Booklet AB. We will mail it free.

A. RAMSAY & SON CO.,
THE PAINT MAKERS, Montreal, Est'd. 1842

"TRUE" COMBINATION WAGON BOX AND RACK



Just what every farmer needs. With the "TRUE" on his wagon he has a first-class wagon-box; Hay, Stock, Corn, Wood or Poultry Rack. Instantly adjusted for any load you want to carry—the only tools you need are your hands.

No matter in what position you put the wings, it is impossible for them to get out of that position, but it would take you but an instant to change them.

We guarantee this article to be made of nothing but the best of material—Yellow Pine, Hardwood and Malleable Iron—and to carry two tons in any position. Made in 14 and 16-ft. lengths and 38, 40 and 42-inch widths.

If you need anything in the line of Planters, Seeders, Garden Drills and Cultivators, Sprayers, etc., write for our catalogue. We have dealers in your town.

THE EUREKA PLANTER CO., Limited - Woodstock, Ont.

DON'T SHEAR SHEEP WITH HAND SHEARS

PRICE all complete, with our improved shearing head and 4 sets of cutting knives, at your dealer's—\$12.75

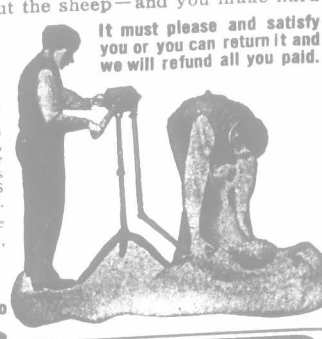
It is slow—you don't get all the wool—you cut the sheep—and you make hard work of it for yourself. Do your shearing with this

STEWART No. 8 SHEARING MACHINE

This is the great enclosed gear shearing machine you hear so much about. Every gear is fully enclosed, protected and runs in oil doing away almost entirely with friction and wear. This machine turns easy shears fast and gets all the wool. IT MEANS 20 CENTS WORTH MORE WOOL FROM EVERY SHEEP.

Your dealer can supply this machine. If not, write us direct. Write for our NEW 1910 BOOK, "More and Better Wool." It is FREE. Send for a copy today.

Chicago Flexible Shaft Co., 110 LaSalle Ave. Chicago



It must please and satisfy you or you can return it and we will refund all you paid.

Anything from a Berry Plant to a Shade Tree is Waiting Your Order.

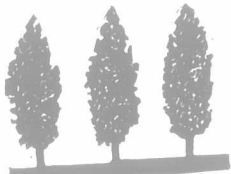
No better stock or value offered than at the old reliable CENTRAL NURSERIES. We ship direct to customer with satisfaction. See our Priced Catalogue before placing your orders. It will pay. If you have not had good results from others, TRY OURS—30TH YEAR.



Apple, Pear, Plum, Cherry, Peach and Ornamental Trees

Roses, Shrubs, Seed Potatoes, etc.

A. G. HULL & SONS, ST. CATHARINES, ONTARIO, CANADA.



GOSSIP.

STONELEIGH STOCK FARM.

Stoneleigh Stock Farm, the property of E. Jeffs & Son, Bond Head, Ont., is a name familiar to readers of "The Farmer's Advocate" for very nearly half a century. Always reliable, always doing exactly as they say they will do, the Messrs. Jeffs have the confidence of a very large number of customers scattered over a very large scope of the country. Their specialties in pure-bred stock-breeding line being Shorthorn cattle, Leicester sheep, Berkshire swine, and Buff Orpington poultry. The Shorthorns are founded on the great old English heavy-milking strains that are rapidly gaining favor in Canada, they have been a source of profit to Messrs. Jeffs, and to all who have purchased breeding stock from this herd. The present stock bull is Imp. Famous Pride, a Bellona-bred son of the Brawith Bud bull, Golden Fame, dam Fanny 2nd, by the Missie bull, Financier. This bull is certainly making good on the Stoneleigh herd, as the many nice, thick young things bear evidence. Of his get, from the splendid-milking matrons, for sale, are two yearling bulls, one a rich roan, the other a white, a nice, thick, sappy pair; also several one- and two-year-old heifers, most desirable as foundation stock. In Leicesters there are still left several shearing ewes and two rams, a yearling and a two-year-old. In Berkshires there are a number of both sexes, about four months of age, sired by Oakdale Masterpiece. These are an extra-choice lot, very smooth and even, with choice quality. The firm are now booking orders for eggs from their splendid flock of Buff Orpingtons, grand winter layers, and perfect in their coloring.

THE MANOR SHORTHORNS.

The large and well-selected herd of Scotch Shorthorns, the property of John T. Gibson, of Denfield, Ont., known as the "Manor" herd, has come through the winter in good breeding condition. This is one of the well-known and well-thought-of herds of Ontario, having produced very many high-class show animals at Toronto and other leading shows. The breeding of the herd is essentially Scotch throughout, and of the most fashionable strains, namely, Cruickshank J's or Jassamines, and C. Clippers, Shepherd Rosemarys, Wimples, Undines, Minas, Matildas, Bessies and Miss Ramsdens; several of the breeding cows are imported, bred by Duthie and other leading Scotch breeders, and sired by such great breeding bulls as Cornelius, Robespierre and Cyprus, sons of the renowned William of Orange; the others, daughters and granddaughters of imported cows, being sired by such noted bulls as Mildred's Royal, a noted show bull, and sire of show animals; Governor-General (imp.), a Cruickshank Lustre; Golden Drop Victor (imp.), a Golden Drop; Proud Gift (imp.), a Pride; Prime Minister (imp.); The Baron (imp.); Nonpareil Duke (imp.); Nonpareil Archer (imp.), and the thick, sappy bull at present at the head of the herd, Star Prince = 53900, a Bruce Mayflower, sired by the Lavender bull, Lavender Star (imp.), dam Sunny Princess (imp.), by Prince of Archers. This bull is a dark red, five years old, very low-down, very thick-fleshed and even, a grand handler and doer, has proven a remarkable sire in this herd, and is for sale; a proposition well worth looking after by anyone wanting a herd-header. Second in service is Baron's Pride = 72491, a Cruickshank Clipper, sired by the Missie bull, Missie's Champion. He is a bull of superior type, very thick and mellow, and grand in his lines. He should do great things on this herd. Both these bulls are registered in the American Herdbook. Only one young bull is left fit for service, but he is a good one, a nice, thick, sappy bull, a roan yearling, a Cruickshank J., got by Star Prince, dam Primrose 5th, by Golden Robe. Among the several heifers are some high-class show things, notably a roan two-year-old, Miss Ramsden, and a red two-year-old C. J. Here are a pair of extra-choice heifers. Another pair of extra-good yearlings are a red Matilda and a red Mina. These are well worth looking after by anyone wanting something quite above the average.

BARN ROOFING

The "Eastlake" Steel Shingle is the only absolutely weathertight shingle on the market. Let us tell you why. A shingle to be proof against the severest storms must have at least a three inch overlap. The

Eastlake Steel Shingle

is the only shingle that has that much. The so-called four-lock shingles have only an inch and a quarter overlap—not enough to keep out the drifting snow and rain, so this proves the "Eastlake" the only waterproof shingle. The roofing problem solved. Our free booklet, "Eastlake Metallic Shingles," tells how.

"Eastlake" shingles can be laid in one quarter the time it takes to lay a four-lock shingle.—The Philosopher of Metal Town.

MANUFACTURERS 1753



Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser.

Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy. FLEMING BROS., Chemists, 71 Church St., Toronto, Ontario

NOTICE TO HORSE IMPORTERS

Gerald Powell, Commission Agent and Interpreter, Nogent Le Rotrou, France, will meet importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking and pedigrees. Many years' experience; best references; correspondence solicited.

For Sale: Imported Clydesdale Stallion, rising th 30 years; well marked and good type and breed. Sire Prince of Craigville. Apply to: A. B. McDONALD, APTON, ONTARIO.

For Sale Canadian draft stallion, rising three dam and grandam registered. G. Brownsberger, Markham, Ontario.

HOMESTEAD ABERDEEN-ANGUS

Two extra good bull calves left, 9 and 11 months old; also females, all ages. Will be priced low to sell this month.

WM. ISCHE, Sebringville, Ont. Long-distance Phone.

FOR SALE: SOME NICE YOUNG

Aberdeen-Angus Bulls and some females of all ages. Also a first-class Clydesdale stallion. J. W. Burt, Coningsby, Ont.

ABERDEEN - ANGUS

Will sell both sexes; fair prices. Come and see them before buying. Drumbo station.

WALTER HALL, Washington, Ont.

Aberdeen-Angus Young bulls fit for service. Cows with calves at foot. Heifers. If you want anything in this line write: James Sharp, "Tweedhill," Rockside, Ont. Cheltenham Sta., C. P. R. and G. T. R., also Erin, C. P. R.

The Maples Herefords

Canada's Greatest Show Herd For sale: 6 young bulls and a number of young females, bred from imported and show stock. None better. Prices right.

W. H. HUNTER, Orangeville, Ont., P.O. & Sta.

Balmiedie Polled Angus and Oxford Down sheep—Offering several exceptionally nice heifers, and a few young bulls. Discriminating buyers will be pleased with my herd. Anything in the herd will be priced. Also ram and ewe lambs. T. B. Broadfoot, Fergus P. O. and Station.

Aberdeen-Angus Cattle—Stock all ages, good strains, at reasonable prices. Apply to ANDREW DINSMORE, "Grape Grange" Farm Clarksburg, Ont.

The Only Roofing With A Lightning Guarantee

THOUSANDS OF DOLLARS LOST

Thousands of dollars are lost each year through lightning. Yet the farmers of Canada need never lose another cent from this cause if they will roof their buildings with PRESTON Safe-Lock Shingles—the ONLY roofing GUARANTEED proof against lightning.

We don't charge you a cent for this lightning guarantee. It's absolutely free. Yet no other guarantee actually means as much to the Canadian farmer as this.

With a PRESTON Shingled roof your barn is SAFE, no matter how severe the electrical storm. You can look out of your window and see barns burning on other farms, yet feel absolutely secure about your own PRESTON Shingled barn, and the horses and cattle, the machinery and crops stored within it.

We could not afford to give this Free Lightning Guarantee did we not know the superior lasting qualities of PRESTON Shingles. If a PRESTON roof were likely to wear out in a few years, it would not be proof against lightning.

PRESTON Safe-Lock Shingles are made and galvanized according to British Government Specifications—the only shingles that are.

The British Government, you know, is the most particular buyer in the world. Ordinary metal shingles could not pass their Acid Test for galvanizing.

This test is more severe on the galvanizing than twenty years of Canadian weather. Yet PRESTON Shingles will pass this test.

Shingles galvanized according to these Specifications are good for twice the service of shingles galvanized in the ordinary way. That is why we can safely give you our Lightning Guarantee.

You don't get a Free Lightning Guarantee with other shingles. Neither do you get shingles SAFE-LOCKED on all FOUR sides. Nor shingles with the nailing fully protected against the weather. Nor shingles made according to British Government Specifications. Nor shingles so easy to lay.

But we cannot tell you in this space all the superior features about PRESTON Safe-Lock Shingles or give other roofing information of vital interest to you. So we've issued a new booklet, "Truth About Roofing."

We should charge something for this booklet, as it contains information of real value to anyone who has a building to roof. But we will send it FREE as a reward to all who cut out, fill in and mail the coupon to us.

Just you send the coupon today.

METAL SHINGLE AND SIDING CO., LTD.

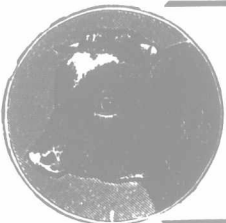
Head Office, Queen St. Factory, PRESTON, ONT.

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Please send me your new booklet, "Truth About Roofing." I am interested in roofing, and would like complete information about PRESTON Safe-Lock Shingles, British Government Specifications and Free Lightning Guarantee.

Name.....
 P. O. Address.....
 County..... Province.....



30 HEIFERS AND 29 BULLS PRESENT OFFERING.

Bred right, made right and at prices to make you feel right. Come early and get your choice. List of these, with catalogue, will be mailed to those who ask for them.

H. CARGILL & SON, CARGILL, ONT.

VALLEY HOME SHORTHORNS AND BERKSHIRES

If you want a first-class Shorthorn bull or heifer come and see what we have, or if you want a show animal with a choice pedigree we have them. For description of herd see Xmas Number of The Farmer's Advocate, on last page. S. J. PEARSON, SON & CO., MEADOWVALE, ONT., P. O. AND STATION, C. P. R.

CHOICE SCOTCH BULLS FOR SALE. HERD-HEADING QUALITY.

H. SMITH, R. R. 3, Hay, Huron Co., Ont. Farm adjoins Exeter, on G. T. R.

Meadow Lawn Shorthorns

I am offering for sale young stock, both bulls and heifers, of richest Scotch breeding, and of high-class show type. I can show some of the best young things in the country. F. W. EWING, SALEM P. O., ONT., ELORA STATION.

QUESTIONS AND ANSWERS. Miscellaneous.

KEEPING GOOSE EGGS FOR HATCHING.

Would some of your subscribers who have had success with hatching goslings, give their experience with keeping the eggs while the goose is laying, and with making the nest for the goose?

R. C. M.

FARM VENDOR REMOVING HAY FORK.

Can a man take a hayfork and track attachments out of a barn after he has sold the farm, it not being mentioned in the bargain? If not, can he take the ropes and pulleys?

ONTARIO. SUBSCRIBER.

Ans.—He is legally entitled to do so, provided he removes same before the time arrives for giving possession to the purchaser of the farm.

INDIGESTION IN FOWLS—MATING TURKEYS.

1. In the last month have lost several fowl. They have good, warm, roomy house, southern exposure; plenty of fresh air and water; are fed oats, wheat and buckwheat, and have plenty of grit. They are not lousy, are kept well cleaned, with plenty of fresh litter every week. The first symptoms are refusal of food, moping round kind of stupid; their crops are very hard and full, and remain so; they then get weaker, some bleeding at the ears, and seem to have great pain, dying in from three to ten days. Can you explain the trouble, and prescribe? They are young fowl, hatched last year.

A. E. Mc.

2. Also, please tell me the proper time to mate young turkeys, the number of eggs they lay, and how long after mating before they commence laying.

A. E. Mc.

Ans.—1. It is quite likely that your fowl are troubled with indigestion, or crop bound; usually the latter is the result of the former. Epsom salts, 1 lb. to a 100 hens, given in a mash, will very often give relief. Dr. Higgins, of Ottawa, gives the following prescription, which he says never fails in the case of indigestion: 1 teaspoonful of muriatic acid, B.P., to a quart of water. Take all food and water away from the hens for forty-eight hours, and give mixture to drink.

2. Turkeys should be about 10 months of age before they lay. The sexes need not be separated, but should be allowed to run together after the beginning of March. The number of eggs laid varies from 10 to 30. After mating the hen begins at once to seek a nest, and begins to lay in about 10 days.

GOSSIP.

AYRSHIRES AT AUCTION.

On April 12th, as advertised, Frank Inch, Kerrwood P. O. and Station, G. T. R., Middlesex County, Ont., will sell at auction his entire herd of 60 head of pure-bred and high-grade Ayrshire cattle, also 300 acres of land.

THE ORIGIN OF DOMESTIC SHEEP.

Professor J. Cossar Ewart, made a communication to the Royal Society of Edinburgh, on the short-tailed domestic sheep. He pointed out that it is generally assumed that domestic sheep have sprung from an extinct long-tailed ancestor, now totally unknown. Evidence was submitted in support of the view that domestic sheep are, in part, descended from a short-tailed race of the Moufflon type—nearly pure representatives of which still survive in practically a wild state on Seany, one of the St. Kilda group of islands—and partly from a race of the Argali or Ovis pali type, characterized by long, spiral horns. It was mentioned that, though naturalists seem to take for granted all the sheep living under domestication are characterized by a long tail, short-tailed varieties still occur in Shetland, the Faroe Islands, and Ireland, and not many years ago, sheep with a tail as short as in the wild Moufflon of Corsica, were common in the west of Ireland. Sometimes Blackface sheep appear with a short tail; whether this is due to the presence of Moufflon blood or to reversion to a remote Argali-like short-tailed ancestor, it is difficult to say.

I Cured My Rupture

I Will Show You How To Cure Yours FREE!

I was helpless and bed-ridden for years from a double rupture. No truss could hold. Doctors said I would die if not operated on. I fooled them all and cured myself by a simple discovery. I will send the cure free by mail if you write for it. It cured me and has since cured thousands. It will cure you.

Fill out the coupon below and mail it to me today.

Free Rupture-Cure Coupon

CAPT. W. A. COLLINGS,
 Box 30, Watertown, N. Y.
 Dear Sir:—Please send me free of all cost your New Discovery for the Cure of Rupture.

Name.....
 Address.....

GRAND TRUNK RAILWAY SYSTEM

HOMESEEKERS' EXCURSIONS TO WESTERN CANADA

(VIA CHICAGO)

Including certain points on Grand Trunk Pacific Railway. April 5, 19; May 3, 17, 31; June 14, 28; July 12, 26; August 9, 23; September 6, 20.

WINNIPEG and return - \$32.00
 EDMONTON and return - \$42.50

Tickets good for 60 days. Proportionate rates to principal points in Manitoba, Saskatchewan and Alberta.

For pamphlets giving list and particulars of "Free Homesteads," "Lands for purchase along the Grand Trunk Pacific Railway," apply to E. DE LA HOOKE, City Pass, and Ticket Agent, E. RUSE, Depot Agent, London, Ont., or address J. D. McDONALD, D. P. A., G. T. Ry., Toronto.

The "STAY THERE"

Aluminum Ear Markers are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalogue and prices mailed free. Ask for them. Address WILCOX & HARVEY MFG. CO., Dept. D, 325 Dearborn St., Chicago, Ill.

A. Edward Meyer

P. O. Box 378, Guelph, Ont.,
 Breeds SCOTCH SHORTHORNS Exclusively. Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls; Scottish Hero (imp.) = 55042 = (90065) 295765 A. H. B.; Gloster King = 68703 = 283804 A. H. B. Young stock for sale. Long-distance phone in house.

Scotch Shorthorns

At Toronto Exhibition this fall yearling bulls bred by us won 1st and 3rd in class and junior champion. We also bred the sire of these bulls. The grand champion steer at Guelph was sired by a bull of our breeding. We have 10 young bulls for sale now, bred the same. Write for breeding and prices. John Miller, Brougham P. O., Ontario. Claremont Stn., C. P. R., 3 miles.

Spring Valley Shorthorns

Herd headed by Clipper Chief (imp.) = 64220 = (94673). If you want to get an imported bull, or a good Canadian-bred one to head your herd, be sure and write, or come and see them. Long-distance telephone.

KYIE BROS. AYR P. O., ONT.

Geo. D. Fletcher, Binkham P. O., Ont., horn bulls. 10, 13 and 18 months old, with both breeding and quality for herd-heads. Prices easy. Stock bull, Benachie (imp.) = 69954 = ; also Shorthorn females and Yorkshire sows. Erin shipping station, C. P. R.

Shorthorns, Clydesdales and Oxford Down Sheep. Several red bulls 10 months of age, by Protector, imp.; some with imp. dams; heifers 2 and 3 years of age. Clydesdale mares and fillies. Lincoln and Oxford sheep. All at reasonable prices. Phone connection. McFarlane & Ford Dutton Ont.

Shorthorns and Oxford Down Sheep. Young bulls and heifers of richest Scotch breeding and highest quality. Twelve ewe lambs, two aged rams and two ram lambs. None better. Phone connection. Duncan Brown, Iona P. O., Ont.

Shorthorns and Leicester. For sale: Choice bred young bulls, and a number of 1 and 2 year-old heifers. All got by Imp. sires, and out of grand milking dams. And Leicester rams and ewes of all ages. W. A. Douglas, Tuscarora, Ont., Caledonia Station.

GOSSIP.

White Wyandotte eggs for hatching, from two pens of grand winter layers, are advertised in this paper by Geo. Amos & Sons, of Pleasant Valley Farm, Moffat P. O., near Guelph, Ont., the noted breeders of Shorthorn cattle.

H. J. Davis, Woodstock, Ont., writes: I have recently sold to Richard Tief, of Puslinch, Ont., a very promising red bull, twelve months old, sired by Nonpareil Chief (imp.), a son of Fascinator, first-prize bull at the Royal Show. His dam is Red Duchess, by Imp. Bapton Chancellor, sire Silver Plate. Have a very good roan fifteen-months-old bull, from imported sire and dam, yet for sale; also one good red imported two-year-old bull, bred by Captain Gordon, who sold his half-brother at the last sale at a very long price. In Yorkshires, trade has been brisk all winter. Will import some the coming season.

THE INTERNATIONAL HORSE SHOW AT OLYMPIA.

The list of prizes to be offered at the fourth International Horse Show, to be held at Olympia, London, England, from 6th to 16th June, has just been issued. As has been the custom in past years, there is a variety of competitions, and the prize-money amounts to the handsome sum of over £12,000. This is the largest amount yet offered at any horse show, and the directors propose to expend about £50,000 in organizing the exhibition. The classes include practically every variety of harness and riding horses, in addition to trotters and Hunters, and other competitions such as those for pace and action, teams, pony tandems, four-in-hand, etc. Entries close on May 4th with the secretary, Frank F. Euren, 12 Hanover Square, London, W., or in America with James F. Hyde, 16 East Twenty-third street, New York.

THE MORRISTON TAMWORTHS.

Never before in its history was the quality of the noted Morriston herd of Large English Tamworth swine, the property of Chas. Currie, Morriston, Ont., so high as at the present time. The unflinching judgment of the owner in the selection of breeding stock is becoming more manifest year by year. As is well known, this is one of the very best show herds of Tamworth swine in Canada, never failing to win their proper share in honest competition at the leading exhibitions. The herd is now about 125 strong, headed by that grand type of hog, College Radiant, bred at Macdonald College, Quebec, from imported sire and dam, selected by the College experts from the leading English herds. He is a sire of more than ordinary worth, his get showing remarkable uniformity and excellence of type and quality. His assistant in service is also from imported sire and dam, thus ensuring customers an infusion of new Tamworth blood of the best brand. The twenty brood sows are an especially-choice lot, many of them Toronto and Guelph winners, weighing from 400 to 700 pounds, daughters of such splendid sires as Knowle King David (imp.), and England's Choice, imported in dam. The produce of these, bred to the above pair of high-class hogs, are what Mr. Currie is now selling and shipping to his customers all over Ontario and Quebec, and satisfaction is expressed with his shipments. Although sales have been heavy, there are on hand a number of young sows, from five to six months of age, all daughters of the old stock boar, and now being bred to the young stock boar; they are a most-desirable lot of breeding stock. In young boars, there is also a number from three to five months of age, bred the same as the young sows, and about sixty younger ones coming on, of both sexes, for which orders are now being booked. Mr. Currie is also offering for sale, very cheap, for quick delivery, two red yearling Shorthorn bulls, sired by a son of the Toronto grand champion, Imp. Prime Favorite, and out of exceptionally good-milking cows. Anyone wanting a young Shorthorn bull, bred from a heavy-milking Shorthorn strain, should look after these. There is also for sale one Clydesdale stallion colt, bay, rising two years, sired by the noted Acme (imp.), and out of an imported dam. He is a colt up to a big size, and stands on a right good set of underpinning, will make a big, good horse, and can be bought very easy.

THE WAY TO GET FULL VALUE From Every Pail of Milk With Least Labor

YOU are not making all the money you could make out of the cows you keep unless you use an I H C Cream Harvester. You know how much butter fat you lose if you skim the old-fashioned way—from 20 per cent to 40 per cent—not to mention the time and labor wasted. Such methods are out of the question for the farmer with the 1910 spirit of progress. It is equally poor business to use a cheap, out-of-date or makeshift separator. Such machines are hard to clean, hard to turn, last but a short time, never give satisfaction, are never worth the price.

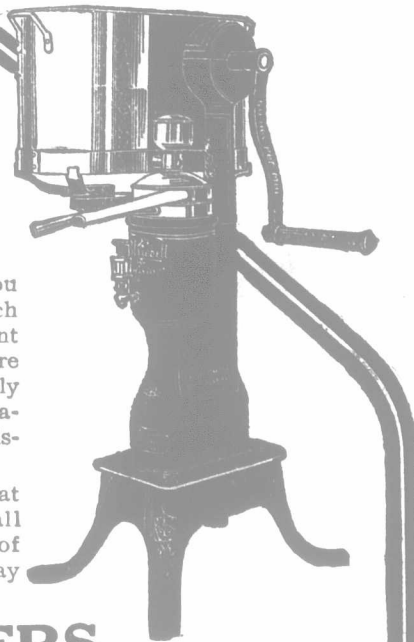
The money-making dairyman is the man who invests in a separator that will skim to a trace; that is simple enough to be kept perfectly sweet at all times, so he gets quality cream; one that turns easily—so that any member of the family may skim without effort; one that will do the work day in and day out, year after year. For such a separator choose one of the

I H C CREAM HARVESTERS

Be sure to investigate these machines before you consider buying any other make at any price. That is all we ask. You don't need to be an expert to see that the design and construction of an I H C is more simple and practical than any other. The only one with dust and milk-proof gearing; most perfect straining device insuring pure cream and skim milk; frame entirely protected from wear by bronze bushings at all points; has largest shafts, bushings and bearings; simplest, surest, most economical oiling arrangement; flexible top bearing prevents vibration and keeps bowl steadied, no matter if power is unevenly applied; many other features equally superior to all other separators.

I H C Cream Harvesters are made in two styles—the Bluebell, gear drive—the Dairymaid, chain drive. Four sizes in each style. No matter how few or how many cows you keep, we can meet your requirements. See the International local agent; or write International Harvester Company of America at nearest branch house for catalogue and full information.

CANADIAN BRANCHES: Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg, Yorkton.



INTERNATIONAL HARVESTER COMPANY OF AMERICA (Incorporated) CHICAGO USA



CALF FOOD

BIBBY'S CREAM EQUIVALENT MEAL added to water, half a pound to six quarts, makes a gruel which CONTAINS ALL THE ELEMENTS of nutriment found in a like quantity OF FRESH MILK. There is no other food save fresh milk itself which contains so much nutriment for calves and young pigs. We are convinced that this is the best article of its kind and want you to use it. It is made in England by an honorable firm and you can "bank" on their word. Give it a trial. 50 lb bags, \$2.25 100-lb., \$4.00 Sold by Reliable Dealers Everywhere, or direct WM. RENNIE CO., LIMITED, TORONTO

Maple Grange Shorthorns

Am offering an extra choice lot of 1-, 2- and 3-year-old heifers, Scotch and Scotch-topped, Clarets, Nonpareils, etc., sired by Royal Bruce, Imp., and among them are daughters and granddaughters of imp. cows. Young bulls also for sale. R. J. DOYLE, Owen Sound, Ont. Phone connection.

GLENGOW Shorthorns

Have two excellent bulls left yet, both about ten months old, and good enough for any herd; also a number of choice heifers, all ages. For particulars write to: Wm. Smith, Columbus, Ont.

SHORTHORNS, Berkshires, Cotswolds.

In Shorthorns, 53 head to select from: 20 calves (13 bulls and 7 heifers), 7 yearling heifers, 3 two-year-old heifers, and the balance cows from 3 years up. No Cotswolds or Berkshires to offer. Chas. E. Bonnycastle, Campbellford, Ont. STATION AND P. O.

High-class Scotch Shorthorns

We are now offering choice young bulls of serviceable age, and a number of one and two year old heifers. Most fashionably bred, and high-class show things among them. Also one two-year-old Clydesdale stallion, with size and quality. Goodfellow Bros., Macville P. O., Ontario. Bolton station.

JOHN GARDHOUSE & SONS

Always have for sale a number of first-class Shorthorns, Shires and Lincolns, of both sexes. Drop us a line, or better, come and see for yourself. Weston Sta., G.T.R. & C.P.R. Long-distance phone in house. HIGHFIELD P. O., ONTARIO.

SPRINGBROOK SHORTHORNS

For sale: 8 good bulls, 6 red and 2 roan, some sired by Royal Sovereign. Bred by the late S. Campbell, Aberdeenshire, Scotland. Most of them by Lord Gordon, bred by A. Watson, Elgin, Scotland. J. & W. Russell, Richmond Hill, Ont.

CLOVER DELL SHORTHORNS

Present offering: A few females of breeding age, also 1909 young stock, both sexes, at reasonable prices. L. A. Wakely, Bolton, Ont. Bolton Junction, on C. P. R., within one-half mile of farm.

HIGH-CLASS SHORTHORNS

I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me. GEO. GIER, Grand Valley P. O. and station, also Waldemar station.

275 BURLINGTON SHORTHORNS 275

3 Choice Imported Scotch Shorthorn Bulls—yearlings. 1 Imported 2-year-old Bull, red—an extra sire. 10 Bulls, 9 to 16 months old—all by imported sire. 30 Choice Young Cows and Heifers—mostly bred or have Calves at foot. Long-distance telephone. Farm ¼ mile from Burlington Jct. Sta., G. T. R. J. F. MITCHELL, Burlington, Ont.

SCOTCH SHORTHORNS—Eight extra good young bulls, from 10 to 15 months old; 20 choice cows and heifers, forward in calf or with calves at foot. Prices reasonable. Inspection invited. W. G. PETTIT & SONS, Freeman, Ont. Farms close to Burlington Jct., G. T. R.

INVERNESS SHORTHORNS Imp. Scotch Shorthorns—When looking for Shorthorns, be sure to look me up. Young bulls fit for service, and females all ages; bred in the purple, and right good ones. A. C. Pettit, Freeman, Ont. W. H. EASTERBROOK, Freeman, Ont.

Maple Leaf Shires, Shorthorns, Hampshire Hogs 1- and 2-yr.-old Shire stallions, females from yearling fillies up; Shorthorns, both bulls and heifers; a choice lot of young Hampshire pigs, both sexes, beautifully belted. PORTER BROS., APPLEBY P. O., BURLINGTON STA. Phone.

SHORTHORNS

Willowdale Stock Farm, Lennoxville, Que., has for sale young stock of both sexes, from his noted herd of 1,600-pound cows, descendants of Joy of Morning, Broad Scotch, etc. J. H. M. PARKER, PROPRIETOR.

SALEM SHORTHORNS! Young bulls and heifers, sired by the great show and breeding bull, Jit Victor (imp.), at J. A. WATT, SALEM, Ont. Long-distance Telephone. moderate prices. If you see them you will want to own them. E. LORA STATION, G. T. R. and C. P. R.

More Strength



The World To-day Calls for Men of Strength, Men of Action.

Why do you drag along listlessly from day to day and week to week, brooding over the loss of your former strength and vigor? Get it back. You can do it. No man is so run down that he can't be built up. You can recover your old-time vim and courage.

There's strength in Electricity for such as you. It is a builder, an invigorator, a strength-giver. Its glowing energy fills your nerves and veins with the spirit of youth. Your over-worked organs respond immediately with new life and energy. It fills you with ambition, animation, and happiness.

That's the way you were intended to be, the way you ought to be, and the way you can be. Make your body into a storage battery by filling it every night with the gentle current from the DR. SANDEN ELECTRIC HERCULEX, and the results will surprise you. The world will look rosy to you, and you'll have the strength and courage to tackle any task.

ments from the DR. SANDEN ELECTRIC HERCULEX, and the results will surprise you. The world will look rosy to you, and you'll have the strength and courage to tackle any task.

FREE UNTIL CURED

Call or write to me and I will at once arrange to let you have the Belt on trial, not to be paid for until cured. No deposit or advance payment. Send it back if it doesn't do the work. Liberal discount for cash, if you prefer to deal that way.

Electric Suspensory or other attachment free, and guaranteed for one year.

It is a quick and lasting cure for Weakness of any Organ of the body, for Nervousness, Rheumatism, Pains in the Back and Hips, Lumbago, Indigestion, Constipation, Kidney trouble, Loss of Memory, Poor Circulation, and all evidences of breakdown. It cures where everything else has failed.

SEND FOR MY FREE BOOK

If you cannot call at my office personally, write for my book. It is full of things every man ought to know, and gives full particulars. Sent free, sealed, by mail, in plain envelope. Write to-day.

DR. A. F. SANDEN, 140 Yonge Street Toronto, Ont.

Entrance: 6 Temperance Street.

OFFICE HOURS: 9 to 6, SATURDAYS UNTIL 9 P.M.

Caldwell's Meal

No stockman or dairyman should be without it. With the meal forming part of the daily food, your stock will rapidly take on flesh and grow glossy coats; your young animals will come earlier to maturity; your sheep will be kept free from coughs and colds—worms will be eradicated; your milch cows will give more and better milk, and your animals will get the full benefit of all the nutriment contained in the entire feed. Costs nothing extra to use, as it is substituted for an equal quantity of ordinary food. A ton will last 20 cows a month. Price, freight prepaid, \$34 per ton. Manufactured by

A. C. CALDWELL, East Toronto, Ont.

CENTRE AND HILLVIEW Holsteins

140 head, 45 females in R. O. M. Herd headed by Brookbank Butter Baron, Bonheur Statesman and Sir Sadie Cornucopia Clothilde. The average of dam, sire's dam and grandam is: milk in 7 days, 662.85 lbs.; butter in 7 days, 30.58 lbs. We have bulls born Mar., '09, to two weeks old for sale, from Record-of-Merit dams. Long-distance telephone. P. D. Ede, Oxford Centre, Ont., Woodstock Sta.

Lakeview Holsteins.

One service bull and several bull calves for sale, sired by Count Hengerveld Fayne De Kol, whose sire has five daughters averaging over 30 lbs. of butter in 7 days, and 120 lbs. for 30 days, and whose dam, the dam of Grace Fayne 2nd's Homestead, with 35.55 lbs. in 7 days, testing over 5% fat. These young bulls are from A. R. O. cows, an extra smooth and well marked lot. E. F. OSLER, BRONTE, ONT.

The Maples Holstein Herd

of Record-of-Merit cows, headed by King Posch De Kol. Nothing for sale at present except choice bull calves from Record-of-Merit cows. Also one or two good cows.

WALBURN RIVERS, FOLDEN'S, ONTARIO

Lawncrest Holsteins

or come and see us. Good railway connection. Long-distance phone.

F. R. MALLORY, FRANKFORD, ONT.

EVERGREEN STOCK FARM offers choice young Holstein Bulls, from 10 to 11 months, sired by Sir Mercena Favorite, whose dam and gr. dam averaged 80 lbs. milk per day, and 24.60 lbs. butter per week. Their dams also in A. R. Also choice females for sale. **F. E. Pettit, Burgessville, Ont.**

Fairview Herd

offers for sale a son of Rag Apple Korndyke. His dam is a daughter of Pontiac Korndyke, with an A. R. O. record of 13.08 lbs. butter in 7 days at two years. Price, \$150.00.

E. H. Dollar, Heuvelton, N. Y.

NEAR PRESCOTT.

IMPERIAL HOLSTEINS

Head your herd with a son of the champion Canadian butter-bred bull, Tidy Abbecker Mercena Posch. Dam and sire's dam average 28 lbs. butter in 7 days, 110 lbs. in 30 days; 4.90 fat.

W. H. Simmons, New Durham, Ont.

We offer high-class R. O. M. and Record of Performance FEMALES at BARGAIN PRICES; also young stock of both sexes, with high official backing. Write,

E. D. GEORGE & SONS, PUTNAM, ONT.

Elmwood Holsteins Choicely-bred calves for April and May delivery. Sired by imported Ykema Sir Posch and Pontiac Sarcastic, a grandson of Sarcastic Lad. Registered. Delivered. Express paid. Sale delivery guaranteed. **E. D. GEORGE & SONS, PUTNAM, ONT.**

GOSSIP.

HOLSTEIN-FRIESIAN OFFICIAL RECORDS FOR FEBRUARY, 1910.

Hulda's De Kol Princess (3015), at 9 years 5 months 19 days of age: 18.52 lbs. butter-fat, equivalent to 23.16 lbs. butter; 621.68 lbs. milk. Owned by H. F. Patterson, Alford Junction, Ont.

Jemima Wayne Johanna (5356), at 5 years 10 months 1 day: 16.94 lbs. butter-fat, equivalent to 21.05 lbs. butter; 503.9 lbs. milk. Owned by M. L. Haley, Springfield, Ont.

Bessie Spink's Last Beauty (5559), at 5 years 8 months 16 days: 10.06 lbs. butter-fat, equivalent to 20.08 lbs. butter; 501.68 lbs. milk. Owned by Chris. Edmondson, Brantford, Ont.

Lady May B. (3485), at 8 years 6 months 25 days: 15.98 lbs. butter-fat, equivalent to 19.98 lbs. butter; 507. lbs. milk. Owned by W. P. Allison, Chester-ville, Ont.

Ida's Bessie (3519), at 11 years 2 months 7 days: 15.40 lbs. butter-fat, equivalent to 19.25 lbs. butter; 525.05 lbs. milk. Owned by W. H. Cherry, Garnet, Ont.

Grace Wayne (3547), at 8 years 9 months 24 days: 15.12 lbs. butter-fat, equivalent to 18.90 lbs. butter; 482. lbs. milk.

Thirty-day test, at 8 years 9 months 24 days: 58.74 lbs. butter-fat, equivalent to 73.42 lbs. butter; 1,972.4 lbs. milk. Owned by E. F. Osler, Bronte, Ont.

Alberta (2853), at 10 years 7 months 24 days: 14.95 lbs. butter-fat, equivalent to 18.69 lbs. butter; 358.5 lbs. milk. Owned by M. H. Haley, Springfield, Ont.

Neptune Balinda (3602), at 9 years 1 month 17 days: 14.61 lbs. butter-fat, equivalent to 18.27 lbs. butter; 415.6 lbs. milk. Owned by Fred. Abbott, Harrietsville, Ont.

Blizzard (3247), at 8 years 7 months 24 days: 14.28 lbs. butter-fat, equivalent to 17.85 lbs. butter; 378.97 lbs. milk. Owned by M. L. Haley.

Cecil Wayne (4645), at 6 years 8 months 13 days: 13.75 lbs. butter-fat, equivalent to 17.18 lbs. butter; 463.4 lbs. milk.

Thirty-day test, at 6 years 8 months 13 days: 56.03 lbs. butter-fat, equivalent to 70.03 lbs. butter; 1,885. lbs. milk. Owned by Lakeview Farm, Bronte, Ont.

Abbecker Tryntje (3196), at 9 years 8 months 17 days: 13.69 lbs. butter-fat, equivalent to 17.11 lbs. butter; 411.55 lbs. milk. Owned by A. H. Teeple, Currie's, Ont.

Molly Shane (4614), at 12 years 4 days: 13.10 lbs. butter-fat, equivalent to 16.38 lbs. butter; 380.3 lbs. milk. Owned by Fred. Abbott.

Artalissa 2nd (7247), at 4 years 1 month 25 days: 16.12 lbs. butter-fat, equivalent to 20.15 lbs. butter; 432.2 lbs. milk. Owned by M. H. Haley.

Winnie R. Calamity Posch (7221), at 4 years 2 months 5 days: 14.37 lbs. butter-fat, equivalent to 17.96 lbs. butter; 376.6 lbs. milk. Owned by Lakeview Farm, Bronte, Ont.

Auggie Cornelia Posch (7501), at 3 years 8 months 28 days: 17.31 lbs. butter-fat, equivalent to 21.64 lbs. butter; 481.1 lbs. milk. Owned by M. L. Haley.

Duchess Christmas Gift (7278), at 3 years 11 months 18 days: 14.79 lbs. butter-fat, equivalent to 18.48 lbs. butter; 391.13 lbs. milk. Owned by Walburn Rivers, Folden's, Ont.

Belle Abbecker Mechthilde (9479), at 3 years 9 months 13 days: 13.45 lbs. butter-fat, equivalent to 16.81 lbs. butter; 377.7 lbs. milk. Owned by M. H. Haley.

Princess Maggie Keyes (6615), at 3 years 11 months 16 days: 13.43 lbs. butter-fat, equivalent to 16.78 lbs. butter; 308.1 lbs. milk. Owned by Geo. W. Anderson, Rossmore, Ont.

Auggie of Riverside 2nd (7242), at 3 years 7 months 11 days: 12.74 lbs. butter-fat, equivalent to 15.92 lbs. butter; 389.6 lbs. milk. Owned by M. H. Haley.

Mollie Keyes Countess (6862), at 3 years 10 months 24 days: 10.70 lbs. butter-fat, equivalent to 13.37 lbs. butter; 280.7 lbs. milk. Owned by Geo. W. Anderson.

Pansy of Inkerman (6843), at 3 years 8 months 29 days: 10.05 lbs. butter-fat, equivalent to 12.57 lbs. butter; 299. lbs. milk. Owned by Parham Allison, Chester-ville, Ont.

Fairy Favorit Mercena (8097), at 2 years 9 months 22 days: 12.70 lbs. but-

(Continued on next page.)

Was Troubled With Dyspepsia.

For Years Could Get No Relief Until She Tried

Burdock Blood Bitters.

Can Eat Anything Now.

Mrs. Herman Dickenson, Benton, N.B., writes: "I have used Burdock Blood Bitters and find that few medicines can give such relief in dyspepsia and stomach troubles. I was troubled for a number of years with dyspepsia and could get no relief until I tried Burdock Blood Bitters. I took three bottles and became cured and I can now eat anything without it hurting me. I will highly recommend it to all who are troubled with stomach trouble."

Burdock Blood Bitters has an established reputation, extending over 34 years, as a specific for Dyspepsia in all its forms, and all diseases arising from this cause.

For sale by all dealers.

Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

MERTON LODGE HOLSTEINS.



I am offering my entire crop of spring calves, sired by a son of De Kol the 2nd Butter Boy the 3rd. I also offer a few young cows and heifers sired by a son of Hengerveld De Kol, the greatest sire of the breed; also a number of high-grade calves sired by our imported Bull, Butter Boy Calamity.

W. W. GEORGE, Crampton, Ont.

WOODBINE STOCK FARM



Offer a number of Holstein cows, heifers and young bulls at moderate prices, sired by Sir Creamelle, whose breeding combines the blood of De Kol Creamelle, word's champion milch cow, with that of Duchess Ormsby, highest-testing family of the breed. Write for anything you want. Telephone connection.

A. KENNEDY, Ayr, Ont.

STILL GREATER!

Grace Fayne 2nd Girl just completed a test of over 30 lbs. butter in 7 days. dam Grace Fayne 2nd is also dam of Grace Fayne 2nd Homestead, world's record, 35.55 lbs., and Grace Fayne 2nd Sir Colantha, who heads the Homewood herd; sire's dam, Colantha 4th Johanna, 35.22 lbs. Young stock for sale. **M. L. & M. H. Haley, Springfield, Ont.**

High-class Holsteins—Head of herd, Pietje Korndyke Lad. Two nearest dams average 26.09 lbs. butter in 7 days. His sire's dam, Pietje 22nd, has a record of 31.62 lbs. butter in 7 days. Present offering; now booking orders for bull calves sired by above sire and out of A. R. O. dams.

W. M. C. STEVENS, PHILLIPSVILLE, ONT.

Ridgedale Holsteins—I have left three bull calves that will be priced right for quick sale; their dams are heavy producers, and their sire was bred right.

R. W. WALKER, Utica, Ont. Phone connection.

Glenwood Stock Farm—Holsteins and Yorkshires. Holsteins all sold out. Have a few young Yorkshire sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. **Thos. B. Carlaw & Son, Warkworth P.O., Ont.** Campbellford Station.

For Sale—7 Holstein bulls: Tamworth pigs from 2 to 6 months old; White Wyandotte cockerels and Buff Orpington hens. **BERTRAM HOSKIN, The Gully P.O., Ont.** Phone connection via Cobourg.

In love of home the love of country has its rise. —Dickens.

A big bowl of

Quaker Oats

is the best dish you can serve.

Delicious and nourishing

Good for all ages and all conditions.

Economical and strengthening.

53

GOSSIP.

(Continued from page 572.)

ter-fat, equivalent to 15.88 lbs. butter; 350.2 lbs. milk. Owned by M. L. Haley.
 May Belle Pauline (11286), at 2 years 9 months: 12.52 lbs. butter-fat, equivalent to 15.65 lbs. butter; 361.50 lbs. milk. Owned by P. J. Salley, Lachine Rapids, Que.

Lakeview Rattler (11364), at 2 years 1 month 2 days: 12.39 lbs. butter-fat, equivalent to 15.48 lbs. butter; 421. lbs. milk. Owned by Lakeview Farm.

De Kol Triumph (9284), at 1 year 11 months 25 days: 12.20 lbs. butter-fat, equivalent to 15.25 lbs. butter; 351.8 lbs. milk. Owned by Geo. W. Anderson.

Cornelia Boutsje De Kol (9394), at 2 years 9 months 13 days: 12.19 lbs. butter-fat, equivalent to 17.73 lbs. butter; 325.7 lbs. milk. Owned by Fred Abbott.

Calamity Posch Wayne 2nd (10572), at 2 years 1 month 21 days: 11.03 lbs. butter-fat, equivalent to 13.79 lbs. butter; 310.59 lbs. milk. Owned by Walburn Rivers.

Beryl Wayne Rhoda (8116), at 2 years 8 months 22 days: 10.88 lbs. butter-fat, equivalent to 13.60 lbs. butter; 287. lbs. milk. Owned by Parnham Allison.

Homewood Queen (9282), at 2 years 17 days: 10.43 lbs. butter-fat, equivalent to 13.04 lbs. butter; 234.4 lbs. milk. Owned by M. L. Haley.

Maysie's Pietertje (10243), at 1 year 11 months 25 days: 10.39 lbs. butter-fat, equivalent to 12.99 lbs. butter; 256.1 lbs. milk. Owned by Fred. Abbott.

Morcena Artalissa (9987), at 2 years 1 month: 10.15 lbs. butter-fat, equivalent to 12.69 lbs. butter; 275.02 lbs. milk. Owned by M. H. Haley.

Nellie Posch (9990), at 1 year 10 months 29 days: 10.00 lbs. butter-fat, equivalent to 12.50 lbs. butter; 252.2 lbs. milk. Owned by M. H. Haley.

Inthe Mechthilde Jewel (8892), at 2 years 1 month 15 days: 9.45 lbs. butter-fat, equivalent to 11.81 lbs. butter; 252.8 lbs. milk. Owned by M. L. Haley.

Elder Triumph (9285), at 1 year 11 months 27 days: 8.75 lbs. butter-fat, equivalent to 10.94 lbs. butter; 337.6 lbs. milk. Owned by Geo. W. Anderson.

Homestead Percilla (9193), at 2 years 5 months 5 days: 8.19 lbs. butter-fat, equivalent to 10.23 lbs. butter; 281.1 lbs. milk. Owned by Cohoe Bros., New Durham, Ont.—G. W. Clemons, Secretary.

W. D. Monkman, of Bond Head, Ont., reports a brisk winter's trade in Shropshire sheep. The enviable reputation of his flock as strictly high-class in type and quality, is bringing him many sales for foundation stock. This year's crop of lambs, now coming, are the get of his imported Cooper-bred ram, a Royal winner, and a right good one, beautifully covered. Yet for sale are a limited number of shearing ewes and rams of superior quality and covering. Mr. Monkman is also offering for sale one Shireilly, rising one year old, imported in dam, sired by Holdenby Abbott; also one Clydesdale filly, rising two years of age. They are a pair of big, growthy fillies, with good legs, that will make the right kind of brood mares. He is also booking orders for eggs from his famous flock of White Wyandottes, which were never so high in quality as now, of the renowned Massey, Martin and Russell strains, of which there are no better. Mr. Monkman is making a change in the culling-breeding part of his operations. Having decided to pay particular attention to feeding, he has lately purchased from Jas. Sharp, of Rockside, a splendid young Polled Angus bull, to use on his herd of Shorthorns, believing the Angus-Shorthorn cross to be the best in the world for beef purposes.

TRADE TOPIC.

A most interesting and instructive series of illustrated advertisements have been running in "The Farmer's Advocate" over the name of the Standard Chemical Company, of Toronto, Ltd., who manufacture and advertise formaldehyde, a solution of which is now used extensively for the treatment of seed grain to destroy smut spores. Through an oversight in the preparation of copy, the Winnipeg address of the firm has appeared in two issues. Our readers should address the Standard Chemical Co., Ltd., Manning Chambers, Sales Dept., Toronto, Ont.

Planet Jr. 2-row Cultivator
 The Planet Jr No 72 two-row Pivot-Wheel Cultivator, Plow, Furrower and Ridger is the greatest implement ever invented for saving time and money on large crops.



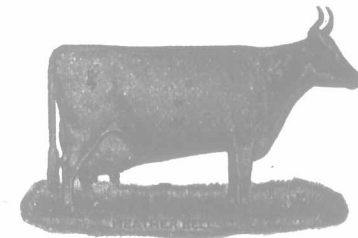
Works two rows at one passage, all widths from 28 to 44 inches,—and what's more, works crooked rows, and rows of irregular width; and surprises everyone in check-rows. Cultivates crops up to 5 feet high. Covers two furrows of manure, potatoes or seed at a time. Never leaves open furrows next to plants. The Planet Jr is designed and built by a practical farmer and manufacturer. It simplifies the work and prepares for big results. Strong, compact and lasting. Fully guaranteed.

Write today for 1910 illustrated catalogue of all Planet Jrs, including 55 kinds of horse and hand implements for every farm and garden need. Mailed free.

S. L. Allen & Co. Box 1108F
 Philadelphia Pa

Write for the Name of Our Nearest Agency.


Burnside Ayrshires



Having disposed of my 1909 importation, I intend leaving about March 1st for another lot. I expect to have a number of bulls through quarantine by first week of June. Orders entrusted to me will be carefully handled. We have a few young bulls fit for service on hand of choice breeding, and females of all ages. Phone, etc.

R. R. Ness, Burnside Stock Farm, Howick, Que.

AYRSHIRES AND YORKSHIRES



Can fill orders for car lots of Ayrshires, or for good grade dairy cows. Young bulls, cows, heifers or calves of choice breeding. Orders taken for imported stock for 1910. A few young Yorkshires. Write us for anything you need in above lines.

Long-distance Phone. ALEX. HUME & CO., MENIE, ONT.

Stonehouse Ayrshires



36 head to select from. All imported or out of imported sire and dam. For sale: females of all ages. Am now booking orders for bull calves.

Hector Gordon, Howick, Quebec.

ISALEIGH GRANGE AYRSHIRES!



Our herd were all selected on their ability to produce a heavy yield of milk. We have a number of 40, 45 and 50 lb. cows, imported and Canadian-bred. From them are young bulls and heifers for sale. None better. JAMES BODEN, DANVILLE, QUEBEC, ISALEIGH GRANGE FARM.

Jerseys and Chester Whites

I am offering some choice young Jersey bulls, sired by Brampton's Blucher, winner of first prize, Toronto and Winnipeg, and from choice, deep-milking cows with good teats. Also Chester White pigs, 3 to 4 months old, both sexes, at special prices.

CHAS. E. ROGERS, Dorchester, Ont.
BRAMPTON Jerseys
 CANADA'S GREATEST JERSEY HERD
 We are offering for sale one 2-year-old bull and four yearlings, fit for service; also six bull calves; females of all ages. Come and see them, or write.
 B. H. BULL & SON, BRAMPTON, ONT.

High Grove Jerseys and Yorkshires.
 No better blood in Canada. Present offering: Two young bulls, 12 and 20 months old, respectively; females all ages. Prices and all information on application.
 ARTHUR H. TUFTS, P. O. Box 111, Tweed, Ont.

CRAIGALEA AYRSHIRES.
 Present offering: One Bull, 14 months old, unbeaten at Fairs last fall; also 3, under 6 months, all from Record of Performance cows, true to type, with good teats; also a few Heifers.
 H. C. HAMILL, Box Grove P.O., C.P.R. Markham, G.T.R. Coquit Hills, C.P.R. Bell phone connection from Markham.

Shannon Bank Ayrshires and Yorkshires.
 Am now offering young bulls and heifers, true to type and high in quality. Young Yorkshires of both sexes.
 W. H. Tran & Son, Locust Hill P.O. & Sta., Ont.

Ayrshires from a Prizewinning Herd.
 Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to
 WM. STEWART & SON, Menie P. O., Ont. Campbellford Stn.

HILLCREST AYRSHIRES.—Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.
 FRANK HARRIS, Mount Elgin, Ont.

Ayrshires—Four young bulls, all bred on dairy lines, out of famous dams; fashionable in color, as well as in breeding. Will be sold worth the money. Females all ages.
 N. DYMENT, Clappison's Corners, Ont.

CALVES Raise Them Without Milk. Booklet free. The Steel, Briggs Seed Co., Toronto, Ont.

When Writing Mention The Advocate

A CURE WITHOUT DRUGS Wear My Belt Until Cured, and Pay Me When the Work is Done.



I have the grandest invention of the age for weak, rundown, wornout men; the surest and easiest cure for all nervous and chronic diseases. Its wonderful power is directed to the seat of the nervous system, through which its vitalized strength penetrates into all parts of the body, carrying new life to every function which has been weakened by disease or dissipation, restoring energy to the brain and power to the system. No weak man will ever regret a fair trial of this invigorator.

Why will you be weak? Why do you go on from day to day when you know you are losing your nerve force—your manhood—when you see a cure within your grasp? Do not delay a matter which is the key to your future happiness. Whatever your condition to-day, you will not improve as you grow older. Age calls for greater vital force, and the older you get the more pronounced will be your weakness.

I want you—if that means you—to come to me, and if I say that I can cure you I don't ask you to pay me until I DO SO, if you give me reasonable security for the Belt while you use it. That is fair, surely. You take no chances, as I know what I can do, and I'll run the risk.

All men cannot be MILLIONAIRES, but thousands of them could be much better off FINANCIALLY, SOCIALLY, and in every other respect, if they would guard their HEALTH, with VIGOROUS HEALTH—a body full of ELECTRIC ENERGY—a man can make OPPORTUNITIES if he don't find them, but, lacking in the COURAGE and SELF-ASSURANCE that is born of MANLY VIGOR, he is but a derelict—a vessel without mast or rudder—cast hither and thither by every storm of life that besets his pathway. GIVE ME A MAN that has exhausted his VITALITY—suffering from PAINS AND ACHES—MENTAL DEPRESSION—drifting with the tide—and I can transform him into a STRONG MAN—a man of push—a man that will make his way in spite of all obstacles—if he has anything left to build upon, and he will follow my advice and use the DR. McLAUGHLIN ELECTRIC BELT as I direct. Save your tobacco money for a few appliances—USE ELECTRICITY, and use it in the right way to invigorate your body, and you will look upon the day you gave your case to me as the TURNING POINT of your life.

Dear Sir,—Received your letter of the 14th inst., and in reply I can say that your Belt gave entire satisfaction. With best wishes, I am, sir, yours very truly,—ERNEST RYERSE, 106 Queen St., St. John, N.B.

Dear Sir,—I am able to say that I believe I am completely cured of Rheumatism. I have not felt a sign of it for two months, and I can recommend your Belt to any sufferer of Rheumatism.—FRED LEMON, Bognor, Ont.

Cultivate cheerfulness. It pays. Energy and cheerfulness—that's a combination that can't be beat. Feed your system with this great Invigorator—Electricity. Apply it with my Belt—the only correct system, and it will overcome your weakness, your pains, your aches. Animal vitality, that's what you lack. If you want to feel strength and energy in every part of your system; if you want to feel the life-blood dancing through your veins; if you want to make your mark in the world, build up your vitality with my Belt, and you can be a Man among Men.

FREE TO YOU.—Call at my office, or mail this coupon with your address, and I will send you my beautifully illustrated 80-page book, full of good news to weak men, and free for the asking.

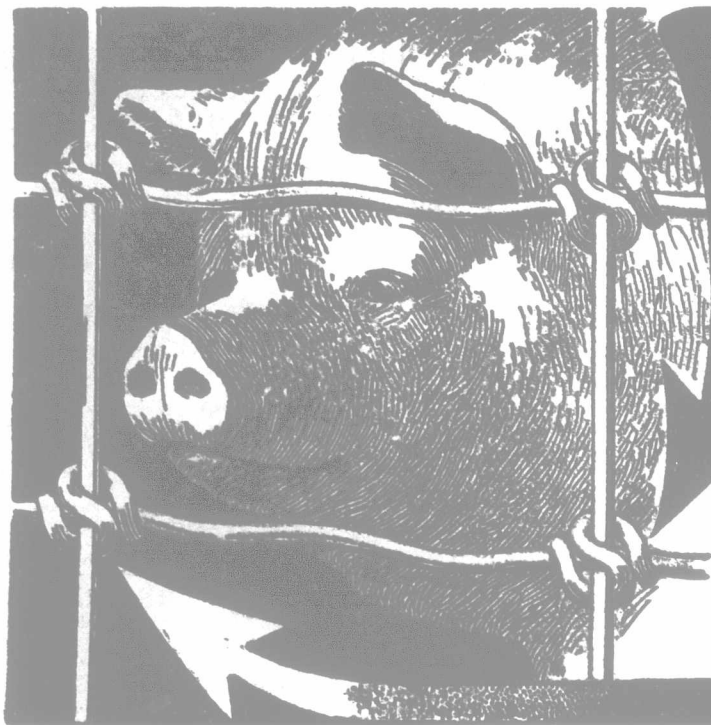
Dear Sir,—I am pleased to report a good account as regards my health. I am beginning to find myself stronger in every way. Certainly your Belt does its duty and its work is sure.—WILLIAM P. MORTER, Box 87, Hawkesbury, Ont.

Dear Sir,—I wish to say that your Belt has done me more good than all the medicine I ever took. I used it every night for about three months, and since then I do not need it. I can sleep good, and feel

as good as ever I did. I am only too pleased that I made up my mind to get your Belt. You have my permission to use this letter if you wish, as I will be only too pleased if it will help anyone to get cured. Yours sincerely,—JOHN HUNT, Davisville, Ont.

MR. ALEX. MARR, Russell, Ont., says: "Anyone who is skeptical about your Belt, tell them to write to me. I feel like a new man."

DR. M. S. McLAUGHLIN,
 112 Yonge St., Toronto, Can.
 Please send me your Book, free.
 NAME
 ADDRESS
 Office Hours—9 a.m. to 6 p.m. Wednesdays and Saturdays until 8.30 p.m.



PUT UP THE HEAVY, HOG-PROOF IDEAL WOVEN WIRE FENCE

You want a fence that is so heavy, stiff and strong that it will discourage any attempt at rooting. After an argument with the IDEAL your hogs will become thoroughly discouraged of trying to get under it. The IDEAL is undoubtedly the fence for you.

The IDEAL is the fence the railroads purchase because of its weight and quality. No. 9 hard steel wire throughout. Heaviest galvanizing on any fence. But the IDEAL lock is the BIG reason why you should buy the IDEAL fence. No lock equal to the IDEAL in gripping-tenacity has yet been discovered. Chances are there never will be. When stretched up, IDEAL is a very handsome fence. Every strand measures exactly true. Every lock is

correctly applied. You see, the IDEAL is manufactured by the most improved fence machinery, in a plant that is considered a model among fence factories. With such superior manufacturing facilities the natural result is a fence overshadowing others in quality—and that is IDEAL fence. For further reasons read our free booklet.

Agents Wanted to Sell This Superior Fence

IDEAL Agents make the best living, because IDEAL Fence has the weight, strength and quality that make it sell easiest. Let us send you our money-making proposition.

THE MCGREGOR-BANWELL FENCE CO., LIMITED, WALKERVILLE, ONT.



ELECTRIC BEANS

Stand supreme as a Blood and Nerve Tonic.

They are unequalled for Biliousness, Sick Headache, Constipation, Heart Palpitation, Indigestion and Anæmia. Those who are in a position to know what is best use "ELECTRIC BEANS."

Write for Free Sample
50c. a Box at all Dealers or upon receipt of price, from
THE ELECTRIC BEAN CHEMICAL CO. Ltd.
OTTAWA.

Special Notice. BETTER THAN SPANKING.

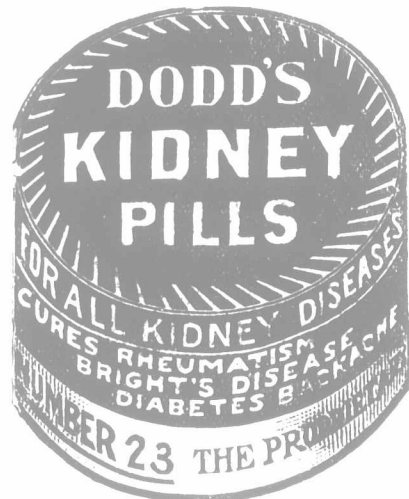
Spanking does not cure children of bed wetting. There is a constitutional cause for this trouble. Mrs. M. Summers, Box 821 Windsor, Ont., will send free to any mother her successful home treatment, with full instructions. Send no money, but write her to-day if your children trouble you in this way. Don't blame the child, the chances are it can't help it. This treatment also cures adults and aged people troubled with urine difficulties by day or night.

CHURCH BELLS

CHIMES AND PEALS
MEMORIAL BELLS A SPECIALTY
FULLY WARRANTED
MC SHANE BELL FOUNDRY CO.,
BALTIMORE, Mo., U. S. A.
Established 1866



In one of the public schools the other day, the teacher presented a problem for the scholars, which would require the use of fractions. She expected the answer, "I don't know." The problem was: "If I had eight potatoes, how could I divide them among nine boys?" One bright-looking youngster raised his hand. "Well?" said the teacher. "Mash them," promptly replied the young mathematician.



GOSSIP.

J. J. Wilson, Milton, Ont., in ordering a change in his advertisement of Berkshires, writes: I have had a very successful season, owing to my advertisement in "The Farmer's Advocate." A few of my recent sales are: One young sow and a young boar, to John Sheffer, Stayner; one boar to Fred. Klages, Neustadt; boar to H. A. Horne, Wolfe Island; boar to Johnston Jeffrey, Arnprior; boar to N. E. Parks, Napanee; boar to Gilbert Ostler, Plevna; young sow to C. E. Bouthillier, St. Therese de Blainville, Que.; boar to The J. B. Snowball Co., Chatham, N. B.; sow to E. Readhead, Lowville, Ont.; sow to D. Shultis, Rockwood; sow to W. D. Shields, Milton; sow to F. Switzer, Milton; two sows to J. A. Gartley, Strabane; boar to W. Gagen, Alliston; boar to Jacob Mogk, Tavistock; sow to W. J. Deans, Fergus; sow to Jas. Milloy, Hillsburg; sow to W. H. Waller, Eric; boar to A. F. Davidson, Gorrie; boar to R. Lee, Mansfield; boar to Oscar Shirley, Houlton, Maine.

SHEEP AND THEIR TEETH.

Prof. Gaumnitz, of the Division of Animal Husbandry, at University Farm, St. Paul, Minn., says that fine-wool sheep live longer than medium- or coarse-wool sheep. The former have been used successfully as breeders from one to eight years, and the latter from one to six years, and more rarely seven years. This indicates the extreme period of usefulness in the flock. The prime of life probably extends from one to five or six years.

The lamb has a short and small head as opposed to the head of the mature sheep. Its teeth are smaller in every way. They are usually smooth and white as opposed to a more corrugated, darkened surface in the old sheep. The age of sheep is told by the four pair of incisors which are found only on the lower front jaw. These are all present by the time the lamb is six weeks old.

In the yearling, the central pair of small incisor teeth are replaced with a large pair, when the lamb is ten to fourteen months old. They are almost twice as wide and much longer than those at either side.

At the age of two years, the animal gets a second pair of large teeth. At three years, it gets a third pair of large teeth. It would then have three pairs of large teeth and one pair of small or lamb teeth.

The four years old has a full mouth of four pairs of large teeth. The outer ones are never as large as those in the center.

After the sheep is four years old, it is difficult to tell the exact age. With age the teeth usually grow longer and narrower. They begin at six years to resemble shoe pegs. Sheep that are living on short pasturage, and get sand with their grass, wear their teeth short, even in old age. This is unusual in Minnesota. When sheep get long, peg-like, or broken teeth, it is time to dispose of them.

MUSK Raw Furs RATS

Of all kinds. Write for our Complete Price Lists and SHIP NOW.

Prompt Returns. **E. T. CARTER & CO.,** 84 Front St. E. TORONTO, ONT. We Pay Express.

We will pay
Very High Prices
for original collections.
WRITE US NOW.

I HAVE GREAT, THICK, ROBUST **SHROPSHIRE** YEARLING AND TWO-YEAR-OLD RAMS and a lot of grand Shropshire and Cotswold ram lambs, ewes and ewe lambs of high class, both breeds, and all of the best breeding. Will sell them in large lots or singly at prices you can afford to pay. Short-horn bulls and heifers, two good registered Clydesdale mares, and a few beautiful Welsh ponies will also be priced at attractive figures. **Robert Miller, Stouffville, Ontario**

LABELS

Metal Ear Labels for Cattle, Sheep and Hogs.

The old standby for all who have stock liable to stray, or to dispute as to identification or ownership; for herd or flock records, or for general convenience. Send for free circular and sample. It may save you much trouble. Write to-day.

F. G. JAMES, BOWMANVILLE, ONTARIO.

Please Remember to Mention "The Farmer's Advocate" When Writing

MONKLAND YORKSHIRES

With very nearly 100 sows in breeding, of modern type and high-class quality, our herd will stand comparison with any in Canada. We are always in a position to fill large or small orders with despatch.

Long-distance phone. **JAMES WILSON & SONS, FERGUS, ONT.**

PINE GROVE BERKSHIRES!

Sows bred and ready to breed. Nice things, three and four months old.

W. W. BROWNBRIDGE,
Milton, C. P. R. Ashgrove, Ont.
Georgetown, G. T. R.

Willowdale Berkshires!

Nothing to offer but suckers and three extra choice young sows, bred to farrow May and June. Be quick if you want one. **J. J. WILSON,** Importer and Breeder, Milton P. O. and Station. C. P. R. and G. T. R.

PINE GROVE YORKSHIRES

including all the firsts and sweepstakes for best dressed carcasses, both at Guelph and the Ottawa Winter Fat-stock Shows of 1908-'09. Young pigs for sale, mated not akin, all the progeny of imported stock of superior excellence. **Joseph Featherston & Son, Streetsville, Ont.**

Hilton Stock Farm Holsteins and Tamworths.

Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths, pigs of all ages and both sexes, pairs not akin. **R. O. MORROW & SON, Hilton, Ont.** Brighton Tel. and Stn.

Newcastle Tamworths and Shorthorns

FOR SALE: Young sows due April and May, by imp. boar, dams by Colwill's Choice, Canada's Champion boar in 1901-2-3-5; also choice pigs, both sexes. Two yearling Shorthorn bulls, Syme and Lavender families, and six choice heifers and heifer calves. Prices right. Bel' phone.

A. A. Colwill, Box 9, Newcastle, Ont.

Maple Villa Yorkshires and Oxford Downs

For immediate disposal: A number of choice young boars ready for use. Some splendid sows bred to farrow in May, and others of breeding age. An excellent lot of ewe lambs. Satisfaction assured. **J. A. CERSWELL, BOND HEAD, ONT., BEETON OR BRADFORD STATIONS.**

DUROC - JERSEY SWINE

Imported and home-bred. Sows ready to breed Boars fit for service, and younger ones either sex Also Embden geese. **MAC CAMPBELL & SONS, HARWICH, ONT.**

Tamworths

A grand lot of young boars from 2 to 4 mos., also young sows (dandies). Some just bred. Some in farrow to first-class boars from best herd in England. Prices reasonable. **Chas. Currie, Morriston, Ont.**

BOOK REVIEW.

TUBERCULOSIS AND OTHER SUBJECTS.

The twenty-fifth Annual Report of the Bureau of Animal Industry of the United States Department of Agriculture, just published, is an illustrated, cloth-bound volume of 502 pages, containing special articles and information of both popular and scientific interest. The Department has no copies for general distribution, its quota being required for its employees and such outsiders as co-operate in its work. The book is on sale to the public by the Superintendent of Documents, Government Printing Office, Washington, D. C.

Tuberculosis in its various aspects is the subject of three articles. Dr. A. D. Melvin, the Chief of the Bureau, in considering the economic importance of this disease among the food-producing animals, estimates that the financial loss from this cause is at least \$24,000,000 annually. Dr. E. C. Schroeder, Superintendent of the Bureau's Experiment Station, points out the danger from the tuberculous cow to human health. His paper is accompanied by a number of striking illustrations, showing cows of ine appearance, which are really affected with tuberculosis, and giving off the germs of that disease in such a way as to be dangerous to consumers of their milk. Drs. John R. Mohler and Henry J. Washburn, of the Pathological Division, have a paper dealing with the causation and character of animal tuberculosis and federal measures for its repression.

The Bureau's field experiments with serum for the prevention of hog cholera are described in a paper by Dr. W. B. Niles. Dr. Melvin, in another paper, presents a plan for the control of hog cholera by the systematic use of serum.

Among the other subjects treated are swamp fever and mycotic lymphangitis of horses, and chronic bacterial dysentery of cattle, damage to live-stock industry by smelter fumes in Montana; prevention of losses by stomach worms in sheep; length of time typhoid bacilli will remain alive in milk and butter; notes on the animal industry of Argentina; improved methods for the production of market milk by ordinary dairies; the outbreak of foot-and-mouth disease, eradicated at an expense of \$300,000 to the U. S. Department of Agriculture, and \$113,000 to the various States; the need of State and municipal meat inspection, to supplement federal inspection; State legislation regulating the standing of stallions and jacks for public service; the development of live-stock shows and their influence on cattle breeding and feeding; the value of the poultry show; statistics of live-stock markets and meat inspection, and other miscellaneous information. The authoritative character of United States agricultural publications is generally recognized, and anyone interested in any of the above subjects should obtain either the report or some of the various articles issued separately as reprints.

GOSSIP.

MORE HOLSTEIN-FRIESIAN COWS ACCEPTED IN RECORD OF PERFORMANCE.

May Echo Pietertje (4690), four-year-old class: 11,720.5 lbs. milk and 358.25 lbs. fat in 335 days; average per cent. of fat, 3.06. Owned by B. Mallory, Belle-Val, Ont.

Belle De Kol Queen 2nd (3523), mature class: 15,447.25 lbs. milk and 495.29 lbs. fat in 344 days; average per cent. of fat, 3.20. Owned by H. Bollert, Cassel, Ont.

Maple Grove Belle 2nd (6540), three-year-old class: 12,594.47 lbs. milk and 427.92 lbs. fat in 330 days; average per cent. of fat, 3.33. Owned by H. Bollert.

Maella Tensen (8456), three-year-old class: 13,504.6 lbs. milk and 474.06 lbs. fat in 365 days; average per cent. of fat, 2.77. Owned by S. Lemoine, London, Ont.

Spotted Lady De Kol (8118), mature class: 13,212.25 lbs. milk and 478.25 lbs. fat in 332 days; average per cent. of fat, 3.57. Owned by Samuel Lemoine.

Sevangeline 2nd (4340), mature class: 10,655 lbs. milk and 373.19 lbs. fat in 300 days; average per cent. of fat, 3.50. Owned by Samuel Lemoine, Secretary.

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We have figured out the real reason why so many Wire Fences in Canada rust about 12 or 15 years sooner than they should.

And we have also figured out the only method of Wire-making to overcome this vital weakness.

So we now Make and Galvanize our own Wire. No other exclusive Fence Maker in Canada does that.

Two-thirds of the life of a Wire Fence depends upon its Galvanizing. Yet in the very face of this, nearly every Fence made in Canada is Galvanized too thinly.

One reason is because Zinc costs four times more than wire.



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Because Galvanizing here permanently, that scale is certain to chip off, and with it goes Mr. Galvanizing.

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But because the "Frost" degree of temper is a secret, no other Wire in Canada is tempered to withstand Canadian conditions.

That's why the Frost Fence is the strongest. We are anxious to prove this.

We are anxious to send you our free booklet on Fence, together with samples of the Frost Fence and Locks, postpaid.

This booklet tells all about Fence, and shows you how to buy the right kind for Canadian purposes. It's worth a lot of money to you. Send for it to-day.



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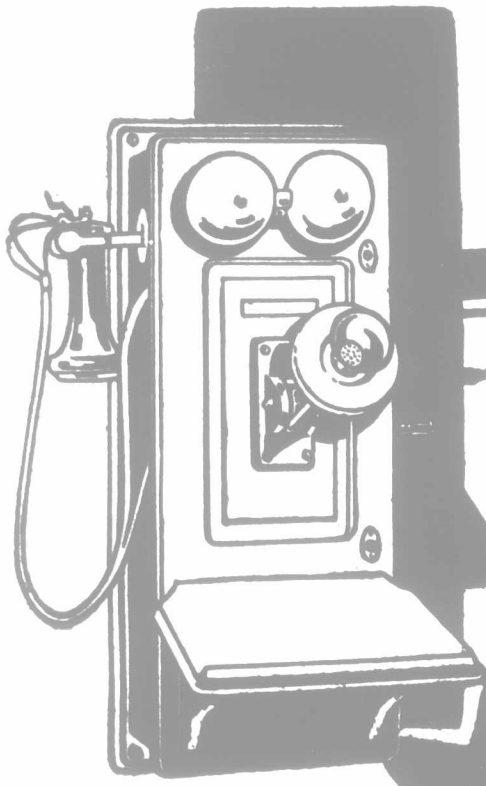
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YET what use is a phone in a home if it is not absolutely satisfactory---what an aggravation it is!

We want you to know about our newly designed No. 1317 Type Telephone Set---to have you understand why it represents the achievement of telephone perfection---to tell you the story of \$10,000 spent on a single instrument to make it ideal before even one was placed on the market.

Every part of No. 1317 is as nearly perfect as it is possible for the most expert telephone engineers in America to make it.

The mouthpiece---the transmitter---is the standard, long-distance type; the ear-piece---the receiver---precludes entirely your hearing any local noises while you are listening on the wire; the generator is stronger than that of any other phone made---will easily ring more phones on a longer line than any phone on the market to-day; our new type 38 ringer is not only very sensitive and efficient but operates on from only one-third to one-fourth the current ordinarily required; our extra large brass gongs produce a volume of noise fully half as great again as gongs on other sets; the switch hook makes all contacts on the

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But you'll get the whole story in detail in the book---better send for it now.

Watch for the other advertisements of this series. They'll have a story to tell you.

THE facts about the farm telephone are facts with which every farmer, isolated in the country, should be familiar. And this book tells you these facts---tells you not only all about the instrument itself---the money it will cost, the dollars it will save, but tells you everything you want to know---need to know---owe it to yourself to know---about farm telephones. Then, it goes further than that. It tells in plain, non-legal terms, how you may organize a rural telephone company right in your own community. It tells how simple the procedure is, how little---how very little---it costs to get started and how extremely insignificant is the cost of maintenance after once you do get going.

After you have read this book you will know exactly

what you would have to do if your community wanted to organize and operate a little telephone company of its own---the precise steps it would be necessary for you to take if you yourself wanted to promote such a company among your own friends and neighbors. You know now without our telling you how, if you were able, to approach your neighbors with every fact---every detail---at your finger ends, you would be able to command their attention, interest and support on such a proposition.

And it won't cost you one single cent to acquire the other information---we stand ready to give it to you for the asking.

Remember, too, the information we will give you is authentic. Back of the little book we will send you stands the reputation of the "Northern Electric"---the concern which has manufactured all but 9,000 of the 259,000 telephones which are in use in Canada to-day. The telephone service about which we want to talk to you embodies not one single detail that is not right up to the minute. The telephone service that we offer to the Canadian farmer is based on our newly designed No. 1317 Type Telephone Set---the most modern instrument on the market to-day for use on rural party lines. With it, you can talk and hear just as well as with the instruments used in the largest and best telephone exchanges in the world. We know---for we manufacture all types, from 10,000 line Central Energy Systems down to bridging party lines for rural use. Our experience must therefore be worth something to you.

This book is indeed well worth reading. Simply send us a post card and say you want our Bulletin No. 2, and you will get it by return mail. **WRITE FOR IT NOW**



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