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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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J. H. Griddle
Exp. Term
Dec 31, 05

* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE *

PUBLISHED AT LONDON, ONTARIO. MARCH 23, 1905. WINNIPEG, MANITOBA. No. 652

Quality Salt

BUTTER-MAKERS who have a reputation always use WINDSOR SALT. It dissolves evenly, is the easiest to work in the butter—the best for seasoning—and the cheapest, because the most economical. Insure your butter being always successful, by always using

Windsor SALT



LOUEN JUNIOR There are only two first-class Hay Carriers in the market.

1st.—For Forks and Short Slings—LOUEN'S JUNIOR

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Our Double-headed Steel Track will always give satisfaction.

We make everything in the Hay Carrier line. LOUEN MACHINERY CO., Guelph, Ont., Manufacturers of Hay Carriers, Barn-door Hangers, Feed and Litter Carriers, Barn-door Latches; in fact, everything for a barn or stable. Write for catalogues, circulars and prices.

British Columbia Farms

We have for sale a very large and complete list of selected dairy farms, orchards, poultry ranches and suburban homes, in the valley of the celebrated Lower Fraser and adjacent islands on the Coast. All in the neighborhood of Vancouver.

Send for our pamphlet giving weather statistics and market prices of 27 different kinds of farm products.

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A good investment that pays dividends all through life is a course of training in any of the Departments of the

NORTHERN Business College

Owen Sound, Ont. Four complete courses of study. Best equipped Business College premises in Canada. The only Business College owning its own College building. A large staff of competent and painstaking teachers. Our graduates are most successful. Just ask them. Full particulars sent to any address free. C. A. FLEMING, Principal.

Paterson's Wire Edged Ready Roofing



Don't cost as much as shingles. Made in Canada for 20 years. Fireproof and sanitary. Easy to put on. Hard to wear out.

Isn't that the kind of Roofing Material you're looking for? For sale by hardware merchants everywhere. Samples, testimonials and other information from :

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The largest Fruit-growing Valley in the FAR-FAMED OKANAGAN. Apply to us for all information regarding Fruit and Farm lands, town and residential lots with lake frontage. Land at \$10 per acre up. Choice fruit lots in and joining town, ample water for irrigation. All information possible willingly given. Write for prices.

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Real Estate Agents. Kelowna, B. C.

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THE GREATEST PAIN LINIMENT KNOWN

Melotte CREAM SEPARATORS



These are the plates in Size 1 bowl, strongly made, easily cleaned, put together in one second. Write us for booklet.

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RALISTER & Co. L^{td}
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Money Makers



These are our NEW

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Rapidly producing Concrete Drain Tile and Well Curbing, with telescopic or plain joints. Sizes, from 4 to 36 inches in diameter. Every municipality needs such tile. Send for particulars and prices.

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An early variety. Genuine Smut-nose Corn. Test seed. Write for prices.

W. B. Roberts, Sparta, Ont.

Choice Seed Grains—Mandsheuri barley, Emmer, Tartar King oats. All grains well cleaned and graded, at reasonable prices. Write for samples and particulars. **JAMES DICKSON,** "Glenstra Farm," Orono, Ont.

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Learn how to tap the maple tree. The gain in sap will pay for Grimm Spouts and Covers in one season. Cultivate the bore by reaming. Save your trees and secure a better quality. Sample spouts and catalogue free. You run no risk; all is guaranteed.

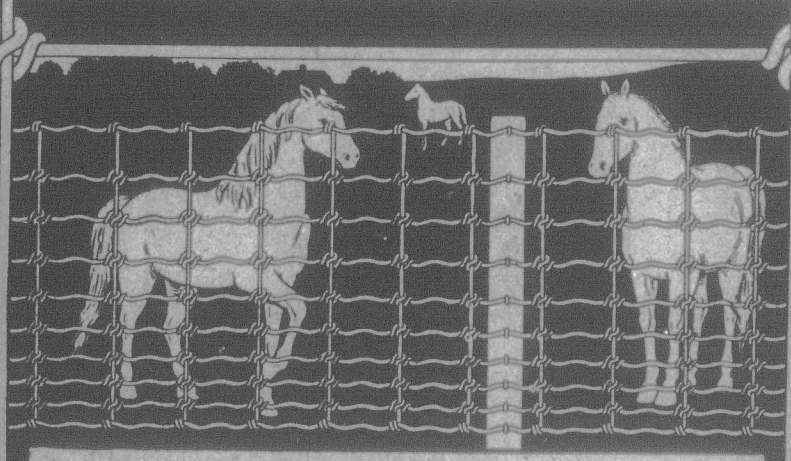
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For MAPLE SYRUP and SUGAR. Has a corrugated pan over fire box, doubling boiling capacity and saving fuel; small interchangeable syrup pans (connected by siphons), easily handled for cleaning and storing, and a perfect automatic regulator, which secures rapid and shallow evaporation, and produces the best quality of syrup. The Champion is a perfect evaporator for Beechum, Elder and Fruit Jellies.

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The Grimm Mfg. Co.
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Made to Last.

This fence is made to keep your live stock in and your neighbor's out. It will do this not only for this year and next year, but for many years to come. To do this the fence must be strong and durable. The IDEAL is both, because we use large gauge (No. 9) hard steel wire for both stays and horizontals, securing them with the "Ideal knot that will not slip." The wire is well galvanized, being tested thoroughly by us before being made into fence.

We cannot tell you all about it here, because we have much to say. If you are interested in fencing, write us for our illustrated catalogue. It shows a style for every purpose, and tells you why the IDEAL is the best value. Our catalogue also shows the Ideal All-metal Farm Gate.

All that is necessary is to send us your address on a postal card. Do it to-day.

THE MCGREGOR-BANWELL FENCE CO., LTD., Walkerville, Ont.

THE OXFORD Cream Separator



Is easy to wash and turn, is a perfect skimmer, is durable, has no exposed gears, has low-down supply tank, and is fitted throughout with Ball Bearings.

Those are a few of the features that make the OXFORD the most up-to-date machine on the market.

WRITE FOR CATALOGUE.

The DURHAM MFG. CO., Ltd.,
Durham, Ontario.



THE OSHAWA ROD TRACK CARRIER FOR 1905

Manufactured by
THE OSHAWA HAY CARRIER WORKS,
OSHAWA, CANADA.


Agents wanted in unrepresented localities.

WE LEAD THEM ALL IN QUALITY, IN CHEAPNESS, AND IN QUANTITY SOLD

Galvanized Steel Woven Wire Fencing

58 INCH	
49 IN.	9
47 IN.	8
35 IN.	7
28 IN.	6
25 IN.	5 1/2
	5
	4 1/2
	4
	3 1/2
	3
	2 1/2
	2
	1 1/2
	1

American Field and Hog Fence.

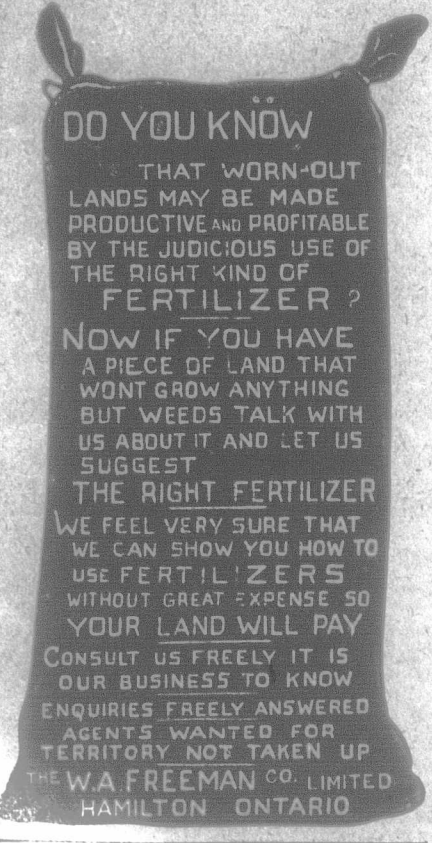


Hinge Joints and Tension Curves.

We call your special attention to our extra Heavy Fence, all Horizontal Wires No. 9 gauge.

If your dealer does not handle our Fences, write to us.

Made by **The Canadian Steel and Wire Co., Limited,**
WINNIPEG, MAN. HAMILTON, ONT.



DO YOU KNOW

THAT WORN-OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER?

NOW IF YOU HAVE A PIECE OF LAND THAT WONT GROW ANYTHING BUT WEEDS TALK WITH US ABOUT IT AND LET US SUGGEST THE RIGHT FERTILIZER

WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE SO YOUR LAND WILL PAY

CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED AGENTS WANTED FOR TERRITORY NOT TAKEN UP

THE W.A. FREEMAN CO. LIMITED
HAMILTON ONTARIO

SCOTCH COLLIES
Now ready for shipment. Write for prices and particulars.
J. K. HUX. Rodney, Ont.

Pulls Stumps or Standing Trees.

Clean a two acre circle with one sitting—pulls anything the wire rope will reach; stumps, trees, grubs, rocks, hedges, etc. A man and a boy with one or two horses can run the

COMBINATION STUMP PULLER,

Stump Anchored or Self Anchoring.

A minute and a half is all it takes for the ordinary stump. No heavy chains or rods. Note the strong wire rope with patent coupler—grabs the rope at any point. Does not chafe ropes; far ahead of old-style "take-ups." Smallest rope we furnish stands 40,000 lbs. strain. It generates immense power and it's made to stand the strain. We also make the Iron Giant Grub and Stump machine, the T. X. L. Grubber and Hawkeye Grub and Stump Machine. Write for free illustrated catalogue.

Largest manufacturers of Stump Pullers in the World.
Established 1894.

MILNE MFG. CO.,
800 5th St., Monmouth, Ill.



Joseph Rodgers & Sons Limited,

SHEFFIELD, ENGLAND.

Please see that this EXACT MARK is on each blade.

James Hutton & Co., Montreal, SOLE AGENTS IN CANADA.



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We have a full line of Fruit and Ornamental Trees for spring, 1905, at lowest possible prices.

Headquarters for packing dealers' orders.

Farmers wishing to buy first-class stock absolutely first hand and without paying commission to agents, should write to us at once for a catalogue and price list.

Don't wait until the last minute, as you will be disappointed. Place order early and secure the varieties you want.

Correspondence solicited.

WINONA NURSERY CO.
WINONA, ONT.

FARM LABORERS

Farmers desiring help for the coming season should apply at once to the Government Free Farm Labor Bureau. Write for application form to

Thos. Southworth
Director of Colonization, Toronto.

Columbia Hay Press Co., Kingsville

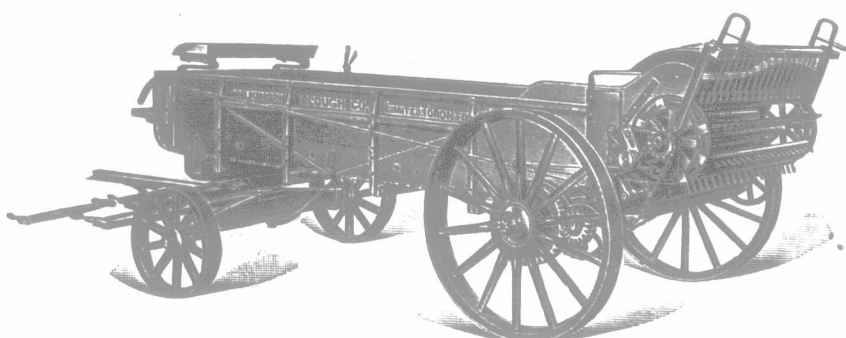


Our customers are unanimous in praises for the Columbia Press. They say it will do all we claim for it and even more. It has a record of 60 tons in 10 hours. We will guarantee it to do at least 4 tons per hour. Write for full description, with testimonials of reliable persons.

Stock Farm for Sale—Burnbrae Stock Farm, containing 149 acres, basement barn, dairy, hen ice and enginehouses, two dwellings, up to date in all respects, together with all thoroughbred stock, implements, etc. Holstein and Jersey stock for sale. Write for particulars. Apply, J. W. ROBERTSON, Vankleek Hill, Ont.

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GREAT WESTERN ENDLESS APRON MANURE SPREADERS



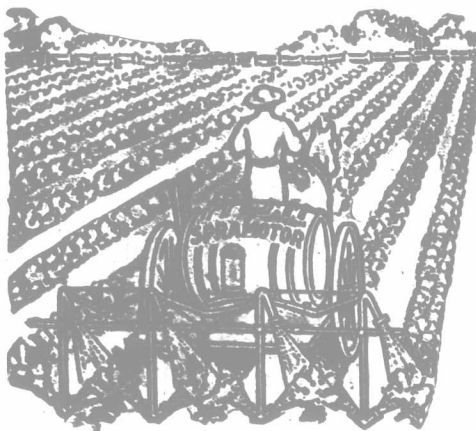
Simplicity, strength and durability combined, make easy operation and excellent results a certainty.

REMEMBER: The wheels tracking; the endless apron; the non-bunchable rake; the large capacity, 70 bus., and our guarantee to give satisfaction or no sale.

Write for Catalogue. Dept. "L."

THE WILKINSON PLOUGH CO., Limited, - Toronto, Canada.

Did the Blight Spoil Your Potatoes Last Year?



Agents Wanted

The Sparamotor

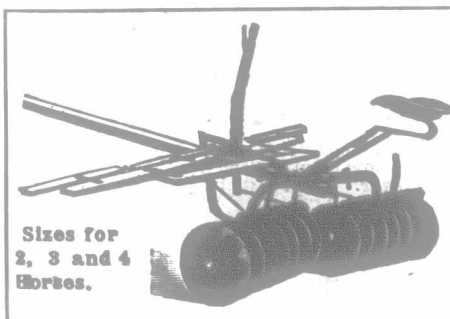
will for \$1.00 per acre, protect the coming season's crop from BLIGHT, BUGS and ROT, and increase the yield over one-half.

The machine illustrated will spray 20 acres a day, 4 rows at a time, above and below, by driving the horse between the rows. All the work is done by the horse.

The machine can be worked by hand for stationary work, such as large trees, whitewashing, etc., kill the wild mustard plant, and greatly increase the yield of grain. Write for Booklet "B;" it's free.

SPRAMOTOR CO.
68-79 King St. LONDON, Can.
107-109 Erie St. BUFFALO, N.Y.

The BISSELL DISK HARROW possesses features



Sizes for 2, 3 and 4 Horses.

Of unusual merit. The shape is right. A plow mouldboard must have the right turn, or it is useless. This is true of the Harrow Disk Plate. The plates on the Bissell Disks have the correct shape, or concave. They do the best work with the least horse power. Where old-style plates only scrape the surface and set the soil on edge, the Bissell shears, cuts turns and completely pulverizes the soil. Years of experience in the Disk Harrow trade have placed the Bissell far ahead of all competitors.

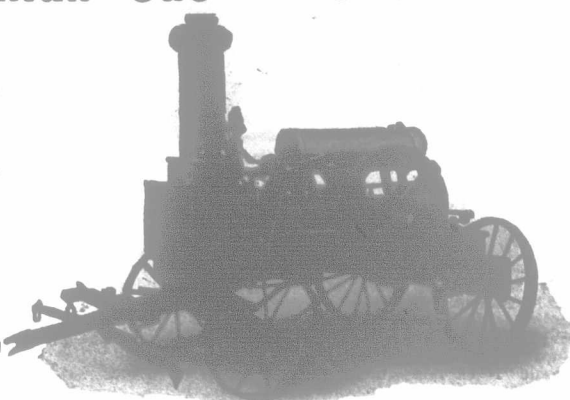
None genuine without the name "BISSELL."

Send us your address on a postal card; we will cheerfully give you further information. Address:

T. E. BISSELL, MANUFACTURER, ELORA, ONTARIO, DEPT. W.

McLachlan Gas and Gasoline Engines

Portable
Stationary
Traction
Marine
Engines



Complete
Gasoline
Threshing
Outfits a
Specialty.

10 to 40 h.-p. Threshing Engine.

WRITE FOR CATALOGUE AND PARTICULARS TO

The McLachlan Gasoline Engine Co., Limited

TORONTO, ONT., or to

W. C. WILCOX & CO., Our Western Agents, Box 818, Winnipeg, Man.

ADVERTISE IN THE ADVOCATE

C. P. R. LANDS

The Canadian Pacific Railway Company have 12,000,000 acres of choice farming lands for sale in Western Canada. Manitoba and Eastern Assiniboia lands generally from \$4 to \$10 per acre, according to quality and location. South-western Assiniboia and Southern Alberta lands, \$3.50 to \$8 per acre. Ranching lands generally \$3.50 to \$4 per acre. Northern Alberta and Saskatchewan lands generally \$6 to \$8 per acre.



Hereford Cattle, Crane Lake, Assiniboia, Main Line Canadian Pacific Railway.

\$6 LANDS:

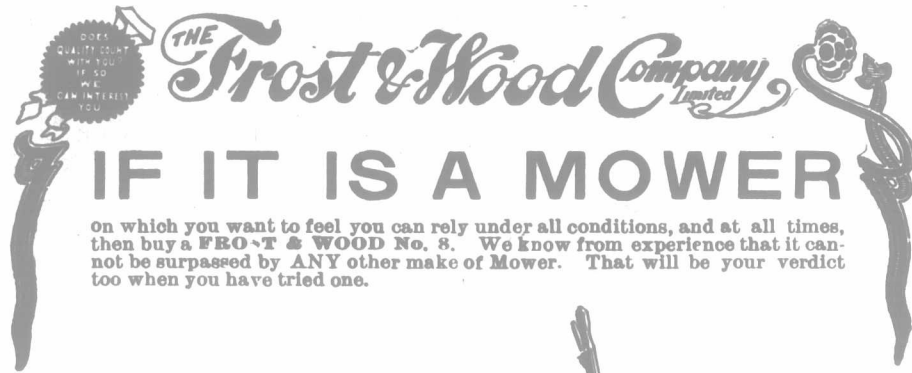
160 acres, or one-quarter section, of \$6 lands may be bought for settlement with a cash payment of \$148.80, a payment of \$48.98 interest at end of the first year, and nine equal installments of \$120 each, which include interest at 6 per cent., annually thereafter. Purchasers who do not undertake to go into residence on the land within one year from date of purchase are required to pay one-sixth of the purchase money down, and the balance in five equal annual installments, with interest at the rate of six per cent. per annum.

DISCOUNT FOR CASH: If land is paid for in full at time of purchase a reduction in price will be allowed equal to 10 per cent. on the amount paid in excess of the usual cash installment of one-sixth. Interest of 6 per cent. will be charged on overdue installments.

FOR MAPS AND FULL PARTICULARS APPLY TO

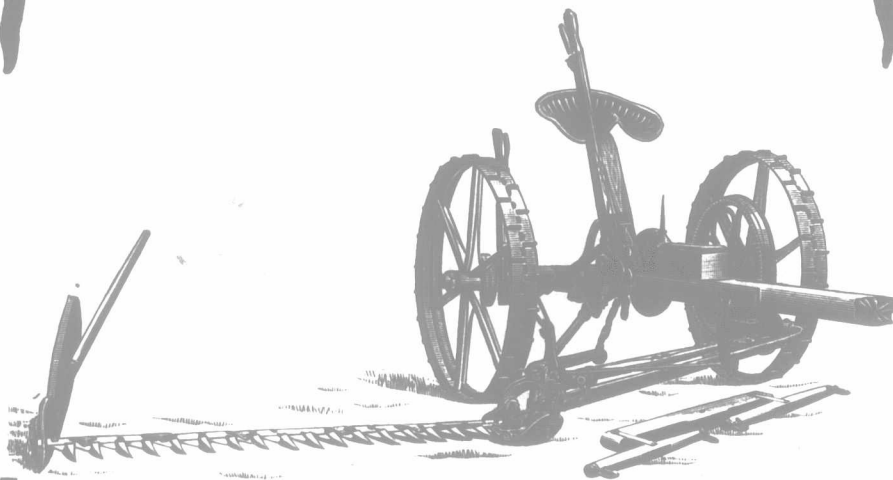
F. T. GRIFFIN, Land Commissioner, WINNIPEG.

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IF IT IS A MOWER

on which you want to feel you can rely under all conditions, and at all times, then buy a FROST & WOOD No. 8. We know from experience that it cannot be surpassed by ANY other make of Mower. That will be your verdict too when you have tried one.



Cuts 4½ ft., 5 ft. and 6 ft. wide.

The INTERNAL GEAR as used on the No. 8 has many advantages over the old EXTERNAL way. The cogs are kept constantly in mesh—no possible chance of jolting, or any necessity of a running start. The first forward motion of the horse—MUST and DOES start the knives. The PITMAN connections on the No. 8 are forged steel. The connection is simple and common-sense. The FOOT-LIFT on the No. 8 raises the WHOLE bar clear of the ground, and is conveniently situated—no stretching to get at it. Our Catalogue "F" explains our full line. Send for it.

THE Frost & Wood Company
LIMITED

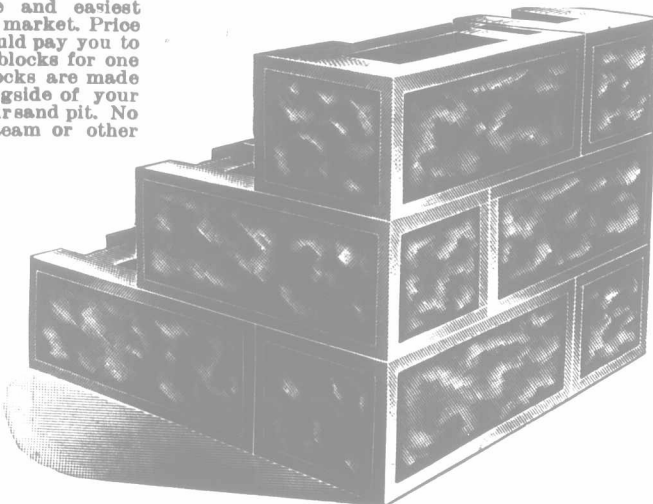
Head Office and Works, - SMITH'S FALLS, ONT.
Winnipeg, Toronto, Montreal, Quebec, St. John, Truro, Charlottetown
Man. Ont. Que. Que. N. B. N. S. P. E. I.

Dunn's Hollow Concrete Block Machine

Most compact, portable and easiest operated machine in the market. Price so reasonable that it would pay you to buy one if only to make blocks for one fair-sized building. Blocks are made out in the open air, alongside of your building, or down by your sand pit. No firing or baking; no steam or other power required. Skilled labor not necessary. Full directions furnished with machine.

MAKES BLOCKS for houses, bank barns and buildings of every description. Cheaper than brick or stone and much handsomer. Warmer in winter; cooler in summer; and indestructible.

Write for particulars to Dept. O. om



The JAS. STEWART MFG. CO., Ltd., Woodstock, Ont.

Selected Farm Lands for Sale In Manitoba

ALL SUITABLE FOR MIXED FARMING.

UNIMPROVED

No. 1.	320 acres, near Swan River, C. N. R.	Price.....	\$3,200
No. 2.	240 acres, near Poplar Point, C. P. R.	Price.....	1,700
No. 3.	160 acres, near Oakville, C. N. R.	Price.....	2,400
No. 4.	240 acres, near Willow Range, C. N. R.	Price.....	3,000
No. 5.	240 acres, " " " "	Price.....	3,000
No. 6.	160 acres, " " " "	Price.....	2,500
No. 7.	320 acres, near Portage la Prairie. This farm has house, stable, and other buildings, with over 100 acres cultivated.	Price.....	5,000
No. 8.	160 acres, near Patrick station, C. P. R., Pheasant Hill Branch, Sask.		

These farms will be sold on reasonable terms. For further particulars, address

THE G. B. HOUSSER LUMBER CO., LTD.
PORTAGE LA PRAIRIE, MAN.

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A DEFINITION

"DeLAVAL" From G. DeLaval Inventor

The best known and most efficient Cream Separator manufactured. 600,000 have been made and sold, many times all others combined. Winner of every highest award at every World's Exposition in twenty-five years. Unequalled in any respect. Indispensable to a Dairyman."

THE DeLAVAL SEPARATOR CO.

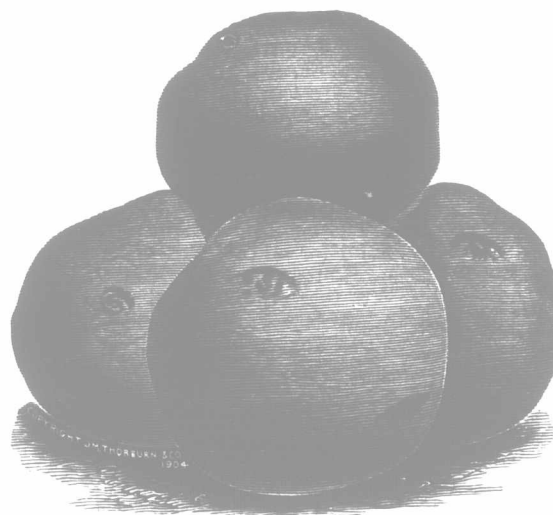
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WINNIPEG

MONTREAL

THE BEST ALL-ROUND POTATO IN EXISTENCE

New Noroton Beauty



The most valuable introduction since the Early Rose—sent out by one of the most reliable Seed Houses in America, who claim:

It is the earliest potato ever grown.

It is by far the most productive extra-early, yielding as heavily as any of the medium early sorts.

It is handsomer in appearance and more uniform in size and shape than any other variety.

Its table quality is superb and it keeps longer than any other sort, early or late.

It is the best all-round potato in existence.

These claims are substantiated by Mr. E. L. Coy, the American potato expert.

The ground-work of the tubers is white, slightly rusted, and splashed more or less pink, with pinkish eyes. The shape is round and the flesh white.

Price, postpaid, to Canadian points: 1 pound 80c., 2 pounds \$1.40, 4 pounds \$2.60, 8 pounds \$4.65.

Our beautifully illustrated Catalogue of Seeds and Implements, etc.—88 pages—mailed free to all applicants.

JOHN A. BRUCE & CO., Seed Merchants, Hamilton, Ont.
Established 1850.

Floor Paint

To paint your floors, verandas, steps and stairs with the **Canada Paint Company's** specially prepared floor paint should be a pleasant pastime. They are ground so smoothly and work so freely that good results are bound to follow. Enquire from the hardware merchant for color cards showing shades of

Canada Paint Company's
Floor Paint.

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The Farmer's Advocate

and Home Magazine.

"PERSEVERE AND SUCCEED."

ESTABLISHED 1866

VOL. XL

LONDON, ONT., AND WINNIPEG, MAN., MARCH 23, 1905.

No. 652

EDITORIAL.

Status and Work of the Dominion Fruit Division.

Notwithstanding the strenuous protest of the fruit-growers, Hon. Sydney Fisher has announced his decision to place the Chief of the Fruit Division under the Dairy Commissioner in the Dominion Department of Agriculture. The reasons assigned are administrative ones. The original purpose in creating the Fruit Division was to enforce the Fruit Marks Act. In addition, it was charged with supervision of the packing and transportation of fruit, particularly in cold storage and cool chambers, and marketing. This brought it into connection with the cold storage and marketing divisions, which, having been organized principally to facilitate the transportation and promote the sale of dairy products, were in charge of Mr. Ruddick, Chief of the Dairy Division, under the Commissioner of Agriculture and Dairying. Subsequently, when Mr. Ruddick was appointed Dairy Commissioner, the work of the Cold Storage and Extension of Markets Division was continued under him, and owing to his close relation with the work of the Fruit Division, it was deemed advisable to place the work of the latter also in his charge.

From present indications, the fruit-growers will scarcely be satisfied with this arrangement. Among them is a general feeling that the Minister fails to appreciate the importance of the fruit business and its possibilities in Canada, and does not understand the urgent need for extension of the educational, investigative and co-operative work which it seems necessary that the Federal Department should be in a position to carry on. Mr. Fisher's reasons for including the Fruit in the same branch as the Cold Storage Division seem to imply that the former should confine its efforts mainly to inspection and marketing questions. To those interested, it is not clear why the Fruit Division should be more concerned in cold storage than the Poultry Division, which has been put under the Live-stock Commissioner. The fruit men think the extent, promise and needs of their business warrant very much increased attention at Ottawa, and a representative official, such as the present efficient chief has proved himself to be, who shall have the necessary authority to deal with their problems as exigencies demand. They consider the Minister takes a circumscribed view of the requirements of this branch of the service. Fruit-growing is a coming business in Canada, and we are satisfied that if the Hon. Mr. Fisher will personally acquaint himself more fully with its real needs and problems, he cannot but realize the desirability of what has been proposed.

Why Not Exempt Woodland from Taxation?

A trip through Western Ontario at this season convinces one that forestry agitation has not begun a moment too soon. To such an extent has the country been denuded that winds from the Great Lakes sweep across the land, and it is a question whether the Ontario climate, originally most favored, has not become more disagreeable than that of the prairies, while the effects of exposure on crop production are becoming evident to every observer. Yet, deforestation, stimulated by high prices for wood and timber, goes on apace. More and more land is being cleared, while the scattered wood-lots, sadly thinned, and underbrushed by stock, are not only losing their effect as a protection, but fast succumbing to the climatic rigor

which the unbroken forest used to modify. It is generally conceded that, for the well-being of crops and animal life, about twenty per cent. of the land of a country should be wooded, and it is a question whether the farmers of Canada would not produce nearly as much crop, at considerably greater profit than is now derived, if a quarter of the total area were reserved to protect the remaining three-fourths. In many sections, the proportion remaining is less than fifteen per cent., and in some cases less than ten, and that, too, along the headwaters of our most destructively erosive rivers. Something must be done to stay the ravages of the axe in the old-settled districts. It is true, the public is being gradually awakened, a forestry nursery has been established, and a forestry school proposed at the Ontario Agricultural College, Guelph, and will doubtless have a great influence, but further and more immediate steps are necessary. We believe it is perfectly sound logic that it will pay a farmer to keep part of his farm in bush, but if we wait till the majority are persuaded to action the next generation will inherit a bleak country. It will be a long time before the public sufficiently apprises the effect of forest upon health and crops, as the benefits of each man's wood-lot are spread over the neighborhood. It is clear that in the deforested counties everyone who keeps a good thick piece of bush is conferring a material benefit upon the community at large, and if, as many still believe, the direct returns from woodland are not equal to the net value of the crops from an equal cultivated area, it would be no injustice to bonus the man who thus maintains a neighborhood protection. As an easy means of substantially encouraging tree-planting or at least preserving existing areas, why not pass a law empowering municipalities to exempt from taxation all unpastured woodland? The plan seems feasible, is justifiable, and free from serious difficulties. It might not be acted upon extensively at first, but would doubtless have some effect, and would, at least, be a recognition of the communal principle involved. Here is a piece of practical forestry legislation which should commend itself in Ontario, Quebec and Prince Edward Island. It would be an excellent forward move for the new Minister of Agriculture in the Province of Ontario.

Every Man a Stallion Judge.

It is not necessary to remind our readers of the advantages of raising a colt or two every year. The horse-breeding industry is buoyant with the promises of the future. Horses are wanted, but in this insistent demand lies the chief danger to the breeder and to the average character of our stock. Such a demand as exists at present is always likely to call into requisition stallions of very inferior merit, horses that, under more normal conditions, and where everyone was trying to get only the best his circumstances would permit, would not be used at all as sires. It is against the use of such horses we wish to caution our readers. Breed only to a sound, clean-actioned horse, one up to weight, and with as much character as can be had. Never for a moment consider breeding to an unsound or awkward-gaited horse because there is a demand for any kind of an animal that will do draft work. The results may mean annoyance for years, or an immediate cash loss equal to more than the difference in service fee between a cross-roads scrub and an International winner. In horse-breeding, one should have one eye on the future and both eyes on the stallion supply in

his district. The mare may drop a filly that it is desired to keep, and this filly, in time, may be the progenitor of a long string of good drafty, sound, hardy work horses, or of an equal number that constantly develop some trouble as a consequence of hereditary tendencies.

Spring stallion shows would afford an excellent opportunity for breeders to become posted on the stallions available in a district, and to get some idea of their comparative values. Where these have not materialized breeders have to use their judgment and observation a little more assiduously, if they would select the best sire for their purpose. Nor should one wait until the stallioners have announced their routes before he begins to size up the stallion supply, for then seeding will have begun, and little time is available for such a purpose. Now, during the early spring is the time to investigate, and make arrangements. Where possible, take note of the colts in the district, look the horse over carefully, see how he feeds, and how he appears on ordinary fare, without extra fitting, talk the matter over with a few neighbors; it may be that arrangements may be made to have a very superior horse from a distance travel in the district, if sufficient support is assured. Before the season opens have plans laid. Take into consideration the type of mares on hand for breeding, and do not make stallion patronage a matter of personal consideration for a neighbor, unless he has what is wanted. Be sure the pedigree is authentic, and recorded in reliable books.

Stallion Pedigrees and Customs Regulations.

If anything was needed to give point and reason for a revision of the Canadian customs regulations, as to what was or was not to be considered pure-bred stock, such is afforded by the Kilkenny meele, in which the promoters of draft breeds of French horses in the United States have been engaged.

A short time ago we received a cartoon, accompanied by a pamphlet, deriding the following U. S. horse records associations: The American Clydesdale, the American Percheron Horse Breeders and Importers, the Percheron Registry, and the French Draft. Now comes a pamphlet headed, "Should the National French Draft Horse Association consolidate with any of the three American Percheron Associations, and if so, which one?" This latest pamphlet certainly pulls aside the veil, and we would suggest that until the consolidation of the associations take place and a U. S. Federal Government stamp be affixed to each and every certificate of pedigree, as a guarantee that such are authentic, all horses enrolled in the associations named above should be considered by the Canadian customs authorities as grades, and that duty be collected upon them. They should be required to produce certificates of registration in duly authorized Canadian records.

We suggest such a move because by means of this the farmers of Canada can be protected against the possible purchase of horses with bogus pedigrees and inferior breeding. In the French Draft pamphlet the statement is made that one record, dubbed a Percheron bubble, is owned and controlled by a firm of horse importers and breeders.

The breeding of draft horses is becoming more and more engaged in by the Canadian farmers, consequently the field is every day becoming more inviting to the seller of stallions.

We believe that the future of the Canadian horse industry depends quite largely upon the quality of the blood introduced, and that no

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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DOMINION.

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pains should be spared to see that only the best blood is used, attested by proper certificates.

The very fact that the Canadian customs admit stallions free of duty as pure-breds is sufficient to guarantee to those not properly informed the authenticity of the said stallions' claim to be considered registered pure-bred horses. Thus, we see that owing to defective and obsolete regulations a department of the Canadian Government may unwittingly aid in the deception of Canadian farmers.

Since writing the above it has been announced that as a result of negotiations carried on between the American Percheron Horse Breeders' and Importers' Association and Mr. S. D. Thompson, the latter has transferred to the former his right and title to the business of registering draft horses, together with all books and records appertaining to the conduct thereof, and retires permanently from the business of issuing certificates of registration of such stock.

Reader for 25 Years.

Please find enclosed \$1.50 for renewal of my subscription to the "Farmer's Advocate." I cannot remember the first time that I saw the "Farmer's Advocate," for my father took it as long back as I can remember, and I have been a constant reader for the twenty-five years that I have been in business for myself. If it had not been a good paper we would not have stuck to it so long.

E. HUMPHREY.

Elgin Co., Ont.

Knife Worth a Dollar.

I am greatly pleased with knife I got from you. I would not like to take a dollar for it. I am sure your premiums should entice anybody to get new subscribers. I will try and get some more myself. The "Farmer's Advocate" is well worth the money we pay for it.

Wellington Co.

C. G. LITTLE.

Principles and Methods of Effective Co-operation: II.

I have stated the objects of co-operative organizations such as might be formed in Canada. No doubt many would ask the question, "Will farmers organize, and how will they organize so as to gain those objects?" Farmers have organized, both in Canada and abroad. In some cases they have failed, and in others they have succeeded. To answer that question is to show how farmers' organizations have succeeded. Success has followed the recognition of certain principles, and the adoption of certain methods in the successful organizations. Those principles and methods will be given here, and their illustration, by actual cases of successful and unsuccessful co-operative organizations, will follow.

The first principle is that essential in the very notion of co-operation: "Each for all, and all for each." The members of an association may be few or many, but they must be earnestly and voluntarily active in the performance of all they undertake. It is necessary to provide for the continuance of this loyal performance, for otherwise, while "all for each" would be expected, "each for all" might often be conveniently neglected.

The second principle is one essential to perfect organization and system: "One purpose, one organization." With too many objects, all are likely to be defeated. Farmers specialize nowadays, and each organization should limit its members to those financially interested in all the purposes of the organization. That means specialization of organization. The same farmers in Denmark are often members of seven or more distinct but harmonious associations, each with its suitable methods, regulations and officers. It pays. The farmers' institutes might assist cheesemaking or bacon-curing associations with useful information, but could never undertake those enterprises and succeed.

The third principle is, "Organize upward, not downward." A national association should be simply a federation of local associations, founded upon, and not the founder of, those independent but similar organizations. The beginnings of a national association, to be successful, must nearly always be in one community, where the members are mutually acquainted and have common interests capable of being united.

The fourth principle is closely allied to the third. The most successful organizations have been those originating with the farmers themselves and INDEPENDENT OF ALL OUTSIDE CONTROL OR ASSISTANCE. There is loss as well as gain from much "fathering" of farmers or any other organizations by departmental administrations. Most of what governmental assistance and initiative have done for Canadian farmers might better have been done by themselves. And they have reached a point in their business, varied, complex and intensive as it is, where any advance must be made independently, and strictly as private interests—separately or in combination, as the farmers choose. Within limits, such advance may be aided by departmental institutions, but the limits are obvious.

A fifth principle may be added, by pointing out that all successful organizations have kept free from all political, sectional or personal sentiments and prejudices. Financial or material objects alone have in those cases been kept in view. On that ground all farmers of similar occupations can co-operate, and, of course, the greater the number in combination the more powerful the organization. This has been a neglected principle in many farmers' organizations in Canada, but it has never once been overlooked in Denmark, where co-operation is most highly developed.

Last, but most essential of all, perhaps, is the principle that the greatest financial interest of all Canadian farmers lies in making all our products of the highest quality, and in making their reputation as good as their quality. That means that everyone engaged in production should work conscientiously to that end, and that methods be adopted which will distinguish our products in foreign markets from those of all competitors. Here, again, in the observance of this rule, lies the secret of the high prices received for their products by Danish farmers.

Now as to methods. Methods vary in different countries, and are different also in organizations, the operations and objects of which require special methods. These organizations may be divided into two classes, with regard to the methods employed, as follows: Commercial or industrial, and non-commercial and non-industrial organizations. To the former belong, for instance, those engaged in buttermaking, bacon-curing, or egg-export enterprises. To the latter belong such organizations as breeders' associations, national trademark associations, associations for combating noxious weeds and insects, etc. The former, being essentially engaged in enterprises requiring capital and a supply of raw material, must arrange for these requirements in organizing. The latter incur no risks, and require no funds beyond those secured by small membership fees, and require different methods in some respects.

In spite of this difference of purposes, the different European organizations reveal a striking similarity of method of organization. Denmark, if we take that country as an illustration, is divided into parishes, equivalent to our townships, each of which has its organized associations for each of the various co-

operative purposes of the farmers therein. In each of these associations the officers are elected for short terms, to carry on the work of the local association without pay. Each such parish organization elects representatives to the district council or association, which in turn elects its officers and its representatives to the national or provincial council, which again elects its officers. Each such association, from that of the parish to that of the nation, in each and every special organization in Denmark, has its consultative and executive work to perform in the interests of the farmers at the bottom of the structure. Those farmers determine all such work of the association, and of all the associations; and every farmer, poor or rich, gets the benefit of a complete, perfect and simple organization, such as can be found nowhere else in the world.

There are many peculiarities of method and machinery incident to such an extensive organization as outlined. The most vital characteristic of all European organizations—and it must be remembered that they alone have shown the world the possibilities of proper organization—has been their method of making certain in every case that co-operation shall be effective, by requiring every member to guarantee to perform his share of the duties of the complex partnership. As co-operation has been the salvation of European agriculture, so this method of specific guarantees has been the salvation of co-operation. Though some may regard these guarantees and the penalties for their violation as superfluous, and though others may think them contrary to individual liberties, they are the greatest and only essential lesson to us given by European experience, and are fully justified by cases in our own experience. Once agreed upon, co-operation absolutely requires active and continuous loyalty of every member. We must adopt this method then, if we are to adopt co-operation. In all co-operative organizations in Europe, the objects of which are industrial or commercial, and which, therefore, require capital and a constant supply of the farmers' products for effective operation, capital and supply are secured by the following individual guarantees of the members:

1. A guarantee to supply all farm products of the sort handled by the association in question, and to sell none of it elsewhere, for a period of generally five years.
2. A guarantee of security for loans of capital, which takes the place of cash subscriptions for shares.
3. Where necessary, to secure highest quality of product; a guarantee to follow certain prescribed regulations as to feeding of animals, care of milk, eggs, etc., as the case may be.

In such cases the capital is obtained from banks, etc., at very low rates of interest, in consequence of the unlimited liability undertaken by the members. The business once operating, its steady supply of materials (milk, hogs, or what not) assured absolutely, it is certain to succeed. The members' liabilities, which take the place of cash payments for shares, are determined by the amount of their expected individual supply, and the profits, which are paid as bonuses semi-annually, are calculated on the business done with each member, each receiving strictly proportionate shares. This means that no one receives profits except as he contributes to the actual business of the association, and ensures the activity of the members' interest in the association. Penalties, as fines or expulsion, are effectual means of preventing any defection of members by selling outside the association, or by improper or careless handling of products supplied. Thus, without capital advanced, the farmers, poor and rich alike, become partners in a profitable business, by means of which they are rendered independent of private manufacturing concerns, commission agents, etc., in their private capacities. By the same means the national product is forced to a high and uniform quality, which still further enhances profits.

In the case of non-industrial organizations the case is much simpler, as sufficient capital for their purposes is got by annual membership fees; in the most instances these being very small. In such cases, as we shall see, expulsion is usually a sufficient penalty by threat of which to ensure conscientious co-operation of all members.

To put in practice the principle of specialized organization, the Danish farmers in particular have developed a very complex system of distinct associations, which work as parts of a machine, complementary and harmoniously. The methods of organization suggested are generally followed in all, each being as simple as possible. These organizations will be outlined more fully in the next article, on "Where co-operation has succeeded."

AUSTIN L. MCCREDIE.

Amount of Salt for Cows.

I am convinced that dairy cows on a full ration require more salt than most people are aware of, writes Colon C. Lillie, in the Michigan Farmer. When I looked this subject up carefully several years ago, I found that experiments in Germany and France went to show that cows would do better; that is, would eat and assimilate more food, if they were fed a goodly amount of salt than when they were not allowed all they wanted. Those experiments seemed to indicate that two ounces per day was none too much for a cow giving a good flow of milk. But experience seems to prove that even more than this is, in the majority of cases, beneficial and profitable. It is stated that on the Dietrich dairy farm, the cows are given four ounces of salt daily, and these cows have certainly made their owner money, and are healthy and all right.

HORSES.

The London Hackney Show.

The twenty-first annual show of the English Hackney Horse Society, held in London, the first week in March, was a brilliant success, the number of Hackney and Pony stallions shown being 224; of mares in the breeding classes, 128; of geldings, 98, and of riding and driving horses, 123, making a total of 573 entries, the largest in the history of the Society, and the quality was of a very high order.

Four-year-old stallions not over 15 hands 2 inches had 14 entries, 11 of which faced the judge, and the first place was given to Dr. Meacock's chestnut, Middleton King, by His Majesty, dam Marchioness, a broad-chested, level-backed horse that made a brilliant show, and won on his merits. The second prize went to Mr. Ford's Grand Duke of Garton, a chestnut son of Garton Grand Duke and Wharram's Lady Cave; third to Mr. E. E. Hutton's Messenger Boy, a chestnut by Royal Danegelt, dam Marigold, a brilliant goer with plenty of style.

In the section for four-year-old stallions over 15 hands 2 inches, sixteen of the twenty entries were out, the chief honor going to Mr. Buttle's Kirkburn Toreador, by Rosador, dam Flame. He is one of the most improved horses in the country and gave, as fine showing as any in the hall. Second prize went to Messrs. Fletcher's Augram Swell, by Acid Drop, dam Augram Brilliance. This bay has a sweet look-out, a fine top, and first-rate action. Third fell to Mr. Arthur Hall's Dan Leo, who was second last year, a fine mover of the extra powerful type.

Stallions five years old and over 14 hands and not over 15 hands, numbered seven. First prize, for the second year in succession, went to the dark chestnut, Lord Ossington, owned by Mrs. Batt, sired by Glengolan, dam Lady Ossington. He made a great showing, moving brilliantly, has thickened during the past year, his arms and second thighs being especially good. Second fell to Messrs. Ross' Matchless, by His Majesty, dam Lady Real Derby, a nice stocky chestnut, that knows how to use his hocks. Mr. W. H. Clark's Skeffling Fireaway, by Winal Fireaway, dam Lilly of the Valley, was third.

Stallions five years and over, exceeding 15 hands, and not over 15 hands 2 inches, were eight in number, first falling to Mr. Ford's brown Lord Kimberly, by Rosador, dam Rypan, a well-known, good-looking horse that made a very big show. Sir Walter Gilbey's chestnut, Bonny Danegelt, by Royal Danegelt, dam Lady Dorothy, was second. Third fell to Mr. H. Milner's Atwick Junior, by Chocolate Junior, dam Lady of Atwick, he being a nice bay of charming quality, wearing himself well, the show he made being one of the best of the day.

Five-year-old stallions over 15 hands 2 inches were twenty-four in number, the general opinion being that it was the best class of the day. The competition was keen, but the judges decided in favor of last year's winner and reserve champion, Mr. Ramsay's chestnut, Diplomatist (7043), by His Majesty, dam Garton Birthday. He carried himself grandly in the ring, and made a sensational show, added to which, he is an uncommonly handsome horse, and was shown in fine form, but connoisseurs consider he might have more bone. Next, and very close up, came Mr. Alfred Benson's Copper King, by Mathias, dam Primrose Lass. He is very similar to Diplomatist, but carries more muscle and timber. The third award went to Mr. Walter Warehouse's Forest Star, by Forest King, dam Miss Florrie, a horse of quite another type, but one who had a host of admirers, a powerfully built horse, with great limbs and middle, and made perhaps the biggest show of the lot. As a harness-horse sire he fills the eye at once, and better luck by a long way may be predicted for him in the future.

In three-year-old stallions not exceeding 15 hands 1 inch, first award went to Mr. R. P. Evans' chestnut, Evanthus, by Polonius, dam Julia. He has a capital top, the best of shoulders, and is an all-round typical Hackney. Second was Mr. J. B. Barnard's Rudston Prince, by Rosador, dam Princess, a nice, free-actioned chestnut. Third was Mr. Ralph Gimmer's chestnut, General Togo, by Cullingworth, dam Snowdrop.

Three-year-old stallions over 15 hands 1 inch numbered seventeen. The struggle for first place was long and close, victory finally falling to Messrs. Haley & Black's chestnut, St. Anthony, a wonderfully stylish horse, by Garton Duke of Connaught, dam Skeleton, who made a grand show. Second to Sir Walter Gilbey's chestnut Kirkburn Sensation, by Rosador, dam Lady Dorothy. This horse was junior champion last year, and has developed into a fine, big type of stallion, with the best of types and plenty of substance, but did not move so freely as the other, though he walked much better.

The championship for stallions was honored by the presence of their Majesties the King and Queen, who evidently took great interest in the proceedings. The award in the adult class was pretty generally antici-

pated, as Mr. Ramsay's Diplomatist had already defeated Copper King, Forest Star and Squire John. Danger was to be feared from the four-year-old, Kirkburn Sensation, but finally Diplomatist was placed champion, and Mr. Benson's Copper King reserve.

The junior champion was Messrs. Haley & Black's first-prize three-year-old, St. Anthony, Sir Walter Gilbey's Kirkburn Sensation being reserve.

The final competition for best stallion in the show resulted in an easy victory for Diplomatist, with Copper King as reserve. The champion mare was Mr. R. P. Evans' District Maid, by Rosador, first prize in class four years old and over, and over 15 hands 2 inches. The reserve was Mr. Cliff's three-year-old Crayke Czarina.

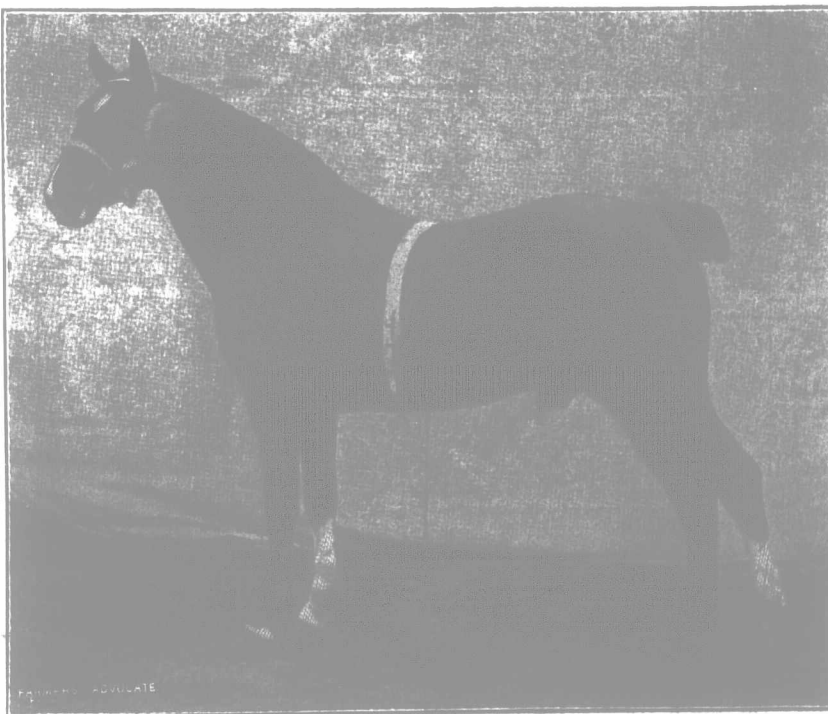
Stick to Type in Horse-breeding.

Probably one of the strongest factors acting against profitable horse-breeding is the failure of farmers to stick to type, the indiscriminate selection of sires, patronizing a sire because he is owned by a friend whom the breeder wishes to help, the failure to study the laws that govern breeding, and of an attempt to produce an ideal.

Breeding is not a thing of chance. It is governed by certain natural laws, which it is not our purpose here to discuss, but with which every breeder should be conversant. These laws are, unfortunately, not absolute, there are many deviations, some of which are hard to account for, at the same time they act with reasonable certainty, and the breeder who studies them carefully, and exercises reasonable intelligence in mating his mares, while he may be disappointed occasionally, will, on the whole, be favored with a fair measure of success. On the other hand the

er prepotency than any other horse, probably greater than any other domesticated animal. Why? Because he has been bred for so many generations without the infusion of foreign blood. Hence, in our endeavor to produce a foal that will be a better animal than the dam, we must select a sire that is not merely a better individual, but one that is pure-bred, and, of course, the longer his pedigree the better. Again, we should not select a sire simply because he is of the breed we want, and has a good pedigree. We must have individuality as well as pedigree, but if we are forced to sacrifice either for the other, I would sacrifice individuality for pedigree, but this only to a limited extent. Get both if possible. Again, I would say, "stick to type." If the prospective dam have some Clydesdale or Shire blood, select a Clydesdale or Shire stallion, the very best that can be had, regardless of a few dollars in stud fee. As regards strict type, we may deviate to some extent; in fact, it is often wise to do so. If the mare does not satisfy us in this respect, we can improve type in the progeny by the careful selection of a sire. For instance, if she be too high, lacks substance, has too long a back, beefy bone, coarse feathering, etc., etc., select a sire of the blocky type, one with plenty of substance, one with a short, strong back, bone and feathering of good quality, etc. In other words, select a sire that is very good in the points in which the dam is deficient. We would deviate from type in this respect. Of course, it is not always possible to get the services of a sire that, in all respects, is exactly what we would like, to suit the individuality of the mare, but we should always bear her individuality in mind, and make the best selection we can. If we have a mare of the class mentioned, and bred as above, we will, in all probability, produce a foal better than the dam, and if this be a filly, by exercising the same judgment in breeding her, we will still improve the progeny, and so on. But if we keep changing the breed of the sires, even if we keep to the draft classes, we degenerate instead of advance. This more or less constant change of sires accounts for the fact that first-class horses of any breed or class are comparatively scarce, and this unsatisfactory state of affairs will continue just so long as breeders do not give the necessary study and intelligent consideration to the breeding problem.

The same general rules apply to breeding horses of the light classes. Violent crosses seldom give good results, as breeding heavy mares to light sires, or vice versa. There have been instances in which such violent crosses have produced valuable animals, and such may be regarded as a calamity, rather than as a favorable result, from the fact that one successful attempt is calculated to encourage further efforts on similar lines, not only by the lucky breeder, but by his neighbors, and it will be noticed that where such irrational proceedings prove successful in one instance, it will prove disastrous in scores. To successfully breed light horses, the same care as regards type and individuality must be observed as in the production of the heavier breeds or classes. Where pure-bred dams are owned there should, in the majority of cases, be no question as to the breed of sire to be selected, as in such cases we should "stick not only to type, but to breed." At the same, even with pure-breeds, there may be cases in which we may be justified in selecting a sire of another breed. For instance, if we have a Thoroughbred mare, and wish to produce a harness horse, we may be justified in mating her with a Hackney. The Hackney will probably give better results when crossed with a Thoroughbred, or one with considerable Thoroughbred blood, than with any other class, except a pure-bred of his own breed. In this case, the prepotency of the dam transmits ambition and staying powers, and the sire transmits the action necessary in the heavy harness horse. In some sections, breeders for years bred their mares to Standard-bred sires, with the hopes of producing fast trotters and pacers. They had the idea that a fast stallion of this breed would produce a fast colt out of mostly any kind of a mare. Of course, the usual result was disappointment. To such an extent has this line of breeding been carried on in certain sections that there are many mares with a strong infusion of Standard blood that practically belong to no class. They are not fast enough for racing, have not size enough for carriage and are simply useful for drawing a light rig



Diplomatist 7043.

Champion stallion at the London Hackney Show, 1905. Sire His Majesty 2513. Dam Garton Birthday 9970.

breeder who does not give the matter due consideration, does not study, or neglects the laws mentioned, but breeds indiscriminately, without regard to the type or individuality of his mares, will be disappointed in a large percentage of his attempts. The object of every breeder should be to produce something better than the dam. This can be done only by the selection of a sire of the same class, but of better individuality. The use of the word "class" here may lead to confusion, and we cannot use the word "breed," as few of our mares are pure-bred. Hence, when we say, "a sire of the same class," we mean a pure-bred sire of the class the mare belongs to or favors in size, action and general characteristics. For instance, if the mare be a large one, with some draft blood, say, Clydesdale or Shire, yet not typical of either, we would select a pure-bred Clydesdale or Shire. We take it for granted that the intelligent breeder will not patronize an impure or unregistered sire of any breed or class. If we mate mares of composite breed with sires of like breeding, even though they are typical, and exactly what we wish to produce, we will, in the majority of cases, meet with disappointment. In such cases, neither parent has the necessary prepotency to reproduce type with reasonable certainty. Prepotency (the power to transmit to the progeny the characteristics of the parent) can be acquired only by breeding in certain lines for many generations. Hence, the parent of composite or mixed blood cannot possess the necessary prepotency, and if each parent lacks this essential, what can we expect the progeny to be? All unprejudiced students of the breeding problem will admit that the Thoroughbred possesses great

over a good road at a fair road pace. The question is often asked: "How shall I breed these mares with reasonable probability of producing a useful animal, and one that will have a fair demand at good prices?" This is a hard question to answer. If crossed with a Thoroughbred, the progeny will probably be too small, except for a lightweight saddle horse. If crossed with a sire of her own breed, it is probable the foal will be too small for valuable service, and not fast enough to make him valuable. If crossed with a heavy harness horse, as a Hackney or Coach horse, the same trouble as regards size, with lack of quality (unless the mare has very good quality), will probably be noticed. And, of course, it would be unwise to cross her with a draft horse. What, then, can be done? If the mare be too small and too slow to be of any value for work or driving purposes, my advice is not to breed her. If she have size, but lack speed and quality, breed her to a good big Thoroughbred, with the idea of producing a saddle horse, or, at all events, an all-round or combination horse. If she have both size and quality, but lack speed, breed her to a Hackney, and expect to produce a heavy harness horse, but if she have neither size nor speed, even though she has quality, do not breed her at all, but, if we must breed her, select a Hackney, with the hopes of producing a high-acting cob, or a blocky Thoroughbred, with the prospects of producing a polo pony, but, in my experience, either of these lines of breeding is very liable to be disappointing. "WHIP."

STOCK.

Docking the Lambs.

Serious complaint is made by drovers, dealers and butchers, owing to the neglect of farmers to dock the tails of their lambs and castrate the males while young. This is inexcusable indifference, and is unbusiness like, causing loss and worry to the breeder, the dealer and all concerned. The cleanliness, comfort and general appearance of the lambs as they grow up are greatly improved by docking. Ram lambs that are not pure-bred or suitable to sell for breeding purposes should be made wethers by the time they are two weeks old, as they become restless, discontented and a nuisance in the fall if allowed to run with the general flock. And their selling value is then heavily discounted, as buyers will not pay as much by nearly a dollar a head for them in the fall or winter. A Toronto dealer has said, "hundreds of thousands of dollars annually are lost to the farmers of Ontario by their neglect to dock and castrate their lambs and dehorn their cattle." By attending to these operations when the animals are quite young, there is no cruelty or pain of any account involved, and there is great gain in the thrift of the stock.

Lambs should be docked and castrated at ten days to two weeks old. The operation of castration is simple in the case of lambs, the lamb being set upon its rump and held by an attendant, the end of the scrotum simply being cut off and the testicles drawn out separately, casings and all, the fingers of the left hand being pressed upon the abdomen to keep it steady. Or, it may be done by making a slit on each side of the scrotum, cutting well down to the bottom to allow drainage of any pus that may arise. Ranchmen claim that the operation can be safely performed when lambs are a week old by clipping off the whole scrotum and its contents with a pair of shears.

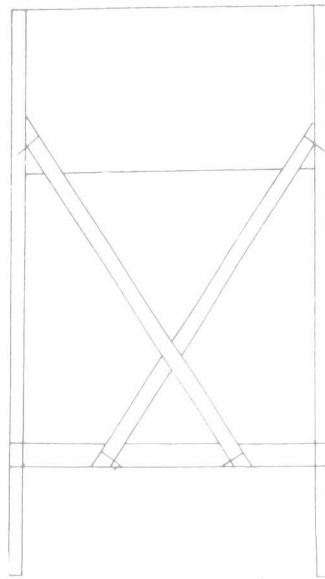
When docking is done within two weeks of birth, very little loss of blood results, and very little danger from any cause. The best way is to let the lamb stand, and, with a sharp knife, cut upwards from the lower side of the tail against the thumb, just as you would cut a carrot. By this method the shock to the spine, caused by holding the lamb on its back and cutting downwards, is avoided. The tails of ewe lambs should be cut short, say at the second or third joint; rams a joint further down. If in any case bleeding continues, it may readily be stopped by tying a piece of soft cord around the stump; this should be cut away in a few hours. The proper and sensible method of dehorning is to touch the little nubbins of the horns of the calf with a stick of potash two or three times when it is a few days old, first wetting the incipient horn slightly, and being careful that the caustic does not run down on the hair or flesh.

First-class Then, and Better Now.

Enclosed please find \$1.50, for which kindly send me the "Farmer's Advocate and Home Magazine" for one year. I took the "Farmer's Advocate" over twenty-five years ago. It was a first-class paper then, but I find it has vastly improved in the interval. R. ROBINSON
Vancouver, B. C.

Another Sheep Rack.

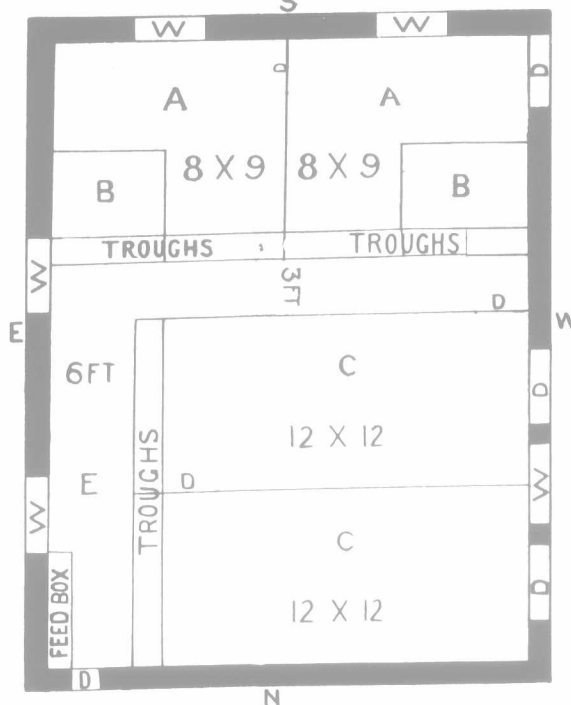
I enclose you plan of sheep-feeding rack I have used with satisfaction for years. The four corner posts are 2 x 3 inch pieces, 3 feet high, with 1 x 3 inch cross strips, to hold up the bottom, which is of the width desired, made of one-inch boards. A 1 x 4 inch board is nailed around bottom to keep grain and roots in. One-inch boards of de-



End View Sheep Rack.

sired width are placed at the proper height along sides to keep the sheep clean. The slats for the rack proper are 1 x 3 inch strips crossed, V-shaped, shown in end view of sketch, into which the fodder is placed. Iron rods and cross-pieces are used for supports. The ends are close boarded. R. WATSON.

A Hogpen.



A, sow pens; B, pens for litter to feed in; C, pens for fattening hogs; W, windows; D, doors; E, alley. Make partition (B pen) one foot from ground to keep sow from trough, which should be 4 in. high; the other troughs 6 in. Walls should be 8 ft. high. Mine is with a concrete floor, and I kill in the 6 ft. alley. L. V. POTTS.

Re Dehorning.

To the Editor "Farmer's Advocate":

In your issue of February 23rd, page 260, I notice an article entitled, "In favor of dehorning." Now, I think dehorning would be all right if all cattle intended for meat were dehorned when calves; but put a lot of cattle in a car or yard loose—some dehorned, others not—and the dehorned cattle would be at the mercy of the others. It is also stated that dehorned cattle are worth more for the export trade, but buyers in this district make no difference. Why should not the Government enact a law, requiring that all cattle intended for meat be dehorned, while calves if possible, but at any rate before shipping. I think this could be done in justice to the farmer, the shipper, and, lastly, but not least, to the cattle; but until this is done very few will dehorn their cattle, as nearly every man will do what he thinks best for his own beast, provided he is not losing by so doing. F. H. W.
Ontario Co., Ont.

Salt as a Preventive of Blackleg.

A long experience on the same holding has led me to form a very strong opinion that we cannot have a better preventive against attacks of blackleg than the constant provision of salt within reach of all cattle and sheep at all times. No case, either of blackleg or anything, has occurred for something like thirty years on this farm since rock salt has been constantly provided both indoors and in the open pasture. Many losses amongst young cattle from blackleg take place on neighboring farms, but I consider that all my cattle are kept immune from attacks by the liberal way in which they consume salt by licking. The rock salt in lumps of, say, five pounds, is kept in every trough for feeding cattle, in every rack in the stable, and in every field in which live stock is kept. The constant necessity of renewing the supply is the best evidence that there is a natural and healthy appetite for salt. Consequently, owners of live stock who are careful of their health ought to look upon salt as an item of their daily menu.

It may be—and probabilities point to a confirmation of this view—that a daily supply of salt taken at the will of our farm stock is a safeguard against attacks of anthrax. The bacillus of anthrax is not identical with the bacillus of blackleg, but there is an unmistakable affinity between the two diseases, which are roughly called blood diseases. I am aware that many authorities in veterinary science advise inoculation, setoning, or doses of medicine calculated to purify the blood. For myself, I have no hesitation in strongly recommending rock salt as a preventive against blackleg, and all the more so because such a preventive is cheap and simple, and absolutely free from the risks inseparable from inoculation or from drenching with physic.—[T. A. S., in the Live-stock Journal.

Warbles in Cattle.

"Possibly there are few subjects on which there is more misapprehension amongst farmers generally than warbles," writes a contributor to the London Live-stock Journal. "I have on more than one occasion heard witnesses in police-court cases argue that warbles in animals are like boils in the human system—that they were 'healthy'! Boils in human beings proceed from impurity of the blood and a low state of vitality, and boils are the result of the system making an effort to purge and purify itself; but from the days of Job to the present I never heard of a man afflicted with boils say they were healthy. One is the result of a faulty condition of the inward system, the other proceeds from the outward attack of an insect; hence what possible relation can there be between them? The warble fly or beetle is to cattle and horses what the tick is to sheep. In the hot day of summer animals may be seen racing wildly in the fields, with uplifted tails, from no apparent cause. They are trying to outstrip the warble fly, but wings prove too fleet for legs, and the insects manage to deposit their eggs in the backs of cattle. These eggs penetrate the hides and develop into maggots, the hatching process extending over the autumn and winter, the maggots drawing their sustenance from the animal, creating a nasty sore, and increasing in size to about half or three-quarters of an inch in length and the thickness of a little finger during the spring and summer months. If left unmolested until they reach maturity, they roll themselves from their beds in the hides in the hot weather onto the grass, come into the fly stage, and repeat the process of egg-depositing. I have counted as many as a dozen warbles in the back of one cow, and it may be imagined that animals so affected cannot thrive under such conditions, and they are continuously engaged in the act of licking or trying to lick the sores, producing in fattening animals 'licked beef'."

"Again, it has been shown that in the United Kingdom there is a yearly loss of from two to three million pounds sterling to farmers from the depreciated values of warbled hides, to say nothing of the losses from 'licked' beef. I have heard it argued that these are butchers', not farmers' losses. Can we imagine a butcher with so little 'white in his eye' as not to make allowance for these warbled hides when he is buying fat cattle? I have never met so verdant a specimen of the trade. No; the two to three millions come out of the pockets of the farmers, and another round sum might be added to that for loss in thriving and extra food when cattle are suffering from warbles."

"These losses are preventable, and only need co-operation on the part of farmers to exterminate the warble fly. In the hot weather, when the cattle are at grass, the following acts as a preventive: Flour of sulphur, 4 oz.; spirits of tar, one gill; train (whale) oil, 1 quart. Mix these well together, and apply along the spine of the cow once a week with a small brush. The smell drives off the flies and prevents them depositing their eggs. The cattle are left to graze at peace, and warbles are prevented. It thus stands to reason that if there are no deposits of eggs the warble fly would die out, and no longer trouble

us. Be this as it may, every farmer can at least protect his own cattle.

"So soon as the small warbles are felt under the hand, no time should be lost in killing them. Chemists now sell a cheap smear for this purpose. Each warble or maggot has a breathing pore through the hide; it is as fine as a hair of the head, so that if the animal's hair is parted over the warble, a small piece of the smear put on top, the hair put back, the breathing pore is stopped, and the maggot is suffocated. The trouble is well repaid in the future better thriving of the animals, and they are spared much suffering."

Lessons for the Meat Producer from the Shows of 1904.

Mr. J. J. Ferguson, of the Animal Food Dept., Swift & Co., Chicago, in a recent address delivered before the Illinois Live-stock Breeders' Association, said in substance:

A review of the commercial live-stock situation of the past year is a story of many contradictions and some surprises. Feeds off the farm were unusually high, while products of cattle, sheep and swine were offered on depressed markets, preventing the packer from paying such prices for finished steers, hogs and muttons as would justify the farmer and stockman putting these on the market in a properly finished condition. At times prime steers were almost an unknown quantity. The great American hog has a more assured position. Lard is a potent factor in regulating the hog market. During 1904, as never before, the keenest competition was developed from the various vegetable compounds and lard substitutes which are now being manufactured so cheaply from cotton seed, peanut and other vegetable oils. Then, further, the steadily increasing demand for lighter hams and bacons is having a very noticeable effect in the marketing of hogs of lighter weights. While the farmer sold his hogs at comparatively low prices, he did not use the regular amount of feed in securing a high finish, consequently his returns were fairly satisfactory. The year just closed was a banner one for the men who were "long" on sheep and lambs. Anything in the shape of a reasonably good native was readily picked up at satisfactory prices. With lambs at eight cents a pound, the sheep feeder should feel very prosperous.

Total values of live stock handled during 1904 by the Union Stock-yard & Transit Co., Chicago, is officially reported as follows:

Cattle	\$149,192,290 00
Calves	2,274,677 00
Hogs	79,626,206 00

The value of all live stock received at Union Stock-yards for the same year amounted to \$264,120,607.00, showing a decline from previous year of \$24,028,100.00. The last dozen years have seen marked changes in the character of the demand from the consuming public. Lighter and leaner meats have been wanted more and more, until at the present time we find a wide spread between the kind of steer, hog or wether which tops the market and the kind that made the records a decade ago. Lighter, leaner cuts of meat could come only from lighter, earlier-matured animals. The producer has been slow to realize the changed condition and to conform thereto. Following the market brings increased profits.

The yearly fat-stock shows of the country offer a fairly safe indication as to the trend of the time on market cattle, sheep and swine. Looking into what is now ancient history, we find that in 1893 the grand championship of the Chicago fat-stock show was won by the peerless bullock, Clarence Kirklevington, a steer which weighed 2,400 lbs., dressed out 1,659½ lbs. of heavily tallowed carcass. Coming down the years to 1900, when the first International Live-stock Exposition was held, we find the demands of the public, and in conformity thereto, the ideas of the packer, had so changed that the grand championship went without question to Advance, a smooth, well-finished steer, which weighed only 1,430 lbs., and which proved in the packing-house to be an economical cutter, free from surplus fat or tallow.

At the last exposition, first place in the slaughter test went to Funk's Choice, a grade Aberdeen-Angus steer, weighing 1,285 lbs., and dressing out 824 lbs., or 66.7% of smooth carcass. The proportion of edible meat was unusually large.

Since 1900 the International Live-stock Exposition has been an accurate gauge of the trend of the times, and has accomplished much in convincing the producers that lighter weights were wanted, both in the showing and in the pens of the packer. With all, except breeding classes, show-yard decisions should conform closely to market demands. Harmful results follow decisions of a judge not closely in touch with market demands and values. [Note.—But the farmer and feeder demand an animal that will combine constitutional vigor, and one that will feed advantageously.—Ed.]

The year just closed is rich in lessons from the two greatest live-stock shows ever seen on this continent.

In my report as Secretary of one of the juries on live stock at the Louisiana Purchase Exposition, I stated: "At this Exposition, to an extent never before attempted, were the decisions based not only upon breed type and excellence, but also upon market demands of the time. The ultimate aim of swine husbandry is meat production; consequently, pure-bred swine, to be of direct financial benefit to the farmer

and stockman, should also be strong in desirable market type and quality. In too many instances we find breed quality and market quality widely different." These remarks are equally applicable to beef and cattle classes. The work both at St. Louis and at Dexter Park the past season not only placed the mark of approval or disapproval on the breeder's work, but took a free step forward in establishing upon a permanent basis, standards of excellence and type which will serve as guides for many years to come.

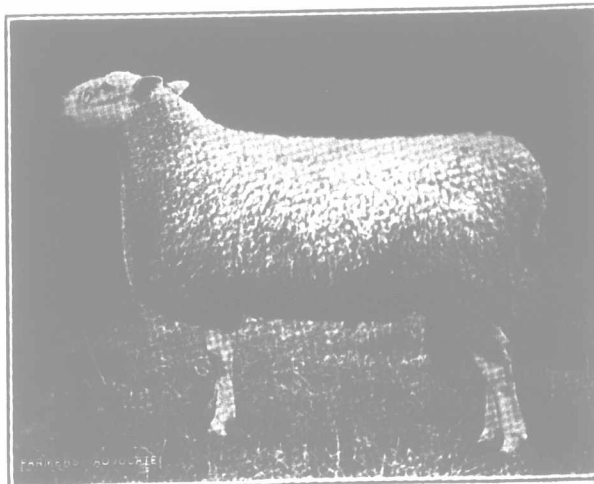
If the ultimate destination of every hog and every animal of the beef and mutton breeds is the block, carcass tests and slaughter tests should be made the leading feature of our fat-stock shows. I am free to state that, up to the present time, carcass contests as conducted at our leading expositions have been but of little practical benefit to the greatest number of stockmen and farmers. We know, in most instances, decisions on animals alive and in the cooler of the packing-house have been so much at variance that the average



English Leicester Ewe.

layman is only more confused by accumulation of data. Long experience has made the cattle, sheep and hog buyers of the packing-house economical and closely discriminating buyers of live stock. Is it not possible that some system can be devised which will enable experienced judges to more closely follow the rules which govern the practical packing-house buyer in his daily operations. I believe a further step in advance is desirable.

A show steer two or three years old has served his purpose. The packer has finally and firmly decided he will not pay exorbitant prices for prizewinning animals. Market quality should be the chief factor in placing awards on finished stock. I believe it is practicable to devise and operate a judging system under which the quality of a steer in the ring would be estimated at its proper worth, and the carcass quality of the same steer rated at its true value in the cooler, and that the final grading position of this steer should depend upon his relative position, as shown by a summary of these two ratings. Our large live-stock shows are the greatest incentive to progress in the live-stock business. But we have passed the point where the red and purple ribbons and championship banners satisfy. We want to know more of the why and wherefore of the showing, through information from the commercial end of the live-stock business.



Border Leicester Ram.

Grub in Head.

I saw in the issue of the "Farmer's Advocate" for February 9th, a question about sheep dying. About eight years ago, in the fall of the year, I noticed one of my ewes blind. In the winter, several more got partially blind. I shut them in a pen by themselves. Toward spring they recovered their sight. They were healthy and strong, to all appearance, at the time of the blindness. Not a weak sheep in the flock; always ready for feed and water. When it came lambing time, I began to lose the ewes. I lost four by death from disease, and, of course, their

lambs went also—four pairs of twins. That spring I had hired a boy, a cousin of mine, to work for me. He said, I believe your sheep have grub in the head. He said when his father was alive their sheep got affected. I said, what did you do for them? He said, we rubbed turpentine around their nose, and it gave them relief. I said I would use the syringe. So we held the sheep's heads well up and injected some turpentine into each nostril. It made them cough and sneeze. I never saw such a discharge as came from each sheep. It came from the top of their heads, for when we applied the turpentine their noses were as clean as if they had been washed. I never lost a sheep after I applied the turpentine. The ewes lambed right along. All but one gave birth to twins. I am satisfied I would have lost every sheep if I had not applied the turpentine. C. C. Haldimand Co., Ont.

The English Leicester.

The English Leicester is one of the oldest of the improved breeds of sheep in Britain, and is so named from the county in England in which it originated. It was formerly frequently spoken of as the Dishley breed, from the home of Robert Bakewell, its originator, who lived at Dishley Hall, in Leicestershire. It was more commonly known as the New Leicester. The improved Leicester was built on a foundation of the old long-wooled sheep of the neighborhood, which were large, coarse, long and thin in the carcass, flat-sided, carrying a coarse fleece, and were without slow feeders. Bakewell commenced the work of improvement in 1755, and continued it until his death, leaving an animal as nearly perfect in form and feeding qualities as could well be conceived. His plan seems to have been that of rigid selection of the best, and a judicious system of in-and-inbreeding, using for breeding purposes only those conforming most nearly to his ideal, and breeding from sires strong in the qualities in which the ewes mated with them were lacking. So rapidly was improvement effected, and so generally recognized, that while in 1760 his annual letting of rams for the season realized for him only \$5 each, in 1784 he received \$525 for the use of a ram; in 1786 one ram was let for \$1,575, and in 1789 it is said he received \$6,300 for the use of three rams which were triplets, \$10,500 for seven others, and \$15,750 for the use of the remainder of his stock of rams, \$2,200 being paid by each of two breeders for the use of one ram for their flocks alone, Mr. Bakewell reserving one third of his use for himself, making the yearly value of this one ram equal to \$6,600. These were certainly boom times. After his death, Bakewell's system of close-breeding was followed by his successors, but with the effect of reducing the value of the breed to the farmer, the sheep becoming disposed to run to the production of fat rather than flesh, and to become more delicate in constitution. The breed, however, has been well maintained by many judicious breeders, and has been instrumental in the improvement of nearly all the other long-wooled breeds.

The English Leicester differs from the Scotch or Border Leicester in being shorter in body and legs than the latter, with a stronger neck and heavier fore quarters, and a somewhat heavier and more dense fleece. The color of the face is generally of a bluish tint, with often a small tuft of wool on the forehead. The Border Leicester is upstanding, clean legged, and the head and legs are perfectly white. What accounts for this difference does not clearly appear, as the champions of either class will not admit that any other breeds have been used in developing their peculiarities, though sly hints by breeders of other classes as to certain crosses having been used are not wanting. It is quite possible that difference of environment, soil, treatment, etc., may reasonably account for the differing types, which are so distinct that the Royal Agricultural Society of England gives a separate class in their prize-list for Border Leicesters, as differentiated from the English Leicester.

Simple Treatment for Abortion.

Prof. A. T. Peters, Animal Pathologist of the University of Nebraska, writes Austin Leonard, kindly sent me their method of treating cows that have aborted. They have found it very satisfactory. It is substantially as follows:

"Irrigate the vagina with a lukewarm three per cent. solution of permanganate of potash; then a solution of yeast is injected into the vagina, which is prepared in the following manner: One cake of compressed yeast is dissolved in a teacupful of water, and allowed to stand to ferment. To this ferment is added from a pint to a pint and a half of water. This is injected into the vagina, and it has a tendency to stop the discharge from the vagina better than any chemical that has so far been used. It also has the great advantage that it does not produce any irritation which may occur by the strong use of carbolic acid and other disinfectant." This treatment will cost about three cents per cow.

FARM.

Nova Scotia Seeding.

Of wheat, White Russian and White Fife are the varieties sown here; of barley, some of the six-rowed varieties; oats, Banner, Sensation, Newmarket, Hazlett's Seizure; peas, Canadian Beauty, Prince Albert. Considerable of the best seed grain is imported from Ontario and P. E. I. We have generally had better results from seed grain that has been grown in this locality for one or two years. Seed grain of any kind should always be run through a "Chatham" cleaner before being sown.

Quantities of seed per acre sown: Wheat, 1½ bushels; barley, 2 bushels; oats, 3 bushels. Peas are seldom sown, except as mixed with other grain. Practically all of our grain is seeded either to timothy and clover, or to clover alone.

We are sowing more mixed grain than formerly, and have generally had very satisfactory crops—generally over 50 bushels per acre of oats, barley and peas. Beside this, we always sow a considerable quantity of oats, peas and vetches for green fodder; or if not all needed green, it is cured as hay. We find it necessary to have some kind of green fodder nearly all summer, after about the first of July.

Our soil being generally rather a sandy loam, and quite rolling, is not hard to prepare for seeding. Land that has been fall plowed is harrowed with spring-tooth and disk harrows, and finished off with a smoothing harrow. Too much importance can hardly be attached to the thorough preparation of a seed-bed.

We prefer first thoroughly fining the surface with spring-tooth and disk harrows, then sowing grain with the hoe drill; a few days after sowing, roll, and follow with a light smoothing harrow. The rolling first presses the particles of soil closely about the small seeds, and, by impacting the soil, aids capillary attraction, thus giving a greater supply of moisture, while the light harrowing after rolling acts as a mulch and hinders evaporation. We have found rolling especially valuable in securing a stand of clover and timothy.

When seeding for more than one year (that is, where the land is to be left in grass for more than one season), we sow 8 to 10 pounds of timothy, 6 pounds of mammoth red clover, and 2 pounds of alsike. When seeding for one year only, we sow 3 or 4 pounds of timothy, and 10 to 12 pounds of common red clover; then the aftermath is plowed under.

Cumberland Co., N. S.

C. H. BLACK.

Seeding Methods.

Some of the varieties of spring grains sown in this locality are: Oats, New Century, One Thousand, Siberian, and Cluster; barley, Mandscheuri, and a variety known as Dakota; corn, for silage purposes, White-cap Yellow Dent, Northern Prolific, Bailey, and Compton's Early. Very few farmers in this locality are growing peas.

In selecting and cleaning my seed grain, an effort is made to keep the best of the crop by itself, and clean carefully, by running it twice through the fanning mill. The quantity of seed sown depends somewhat upon the variety. In seeding with oats, the quantity is rather better than one and one-half bushels per acre; barley, one and three-quarters bushels per acre. All my grain crop is seeded with clover.

My experience in sowing grain mixtures convinces me that larger yields can be obtained by so doing, and so the bulk of my spring grain is sown in this way.

In preparing my land for seeding, the three-year system of rotation is followed, which rotation does not include pasture. The grain crop follows the corn, root and potato crop, which has been grown upon clover sod plowed in the fall and manured the following winter. During the growth of the corn and root crop the land is kept thoroughly clean by continuous surface cultivation, and after the crop is removed the land is not plowed for the following grain crop. It is cultivated in the fall and again in the spring with the spade harrow. The mode of cultivation in spring is as follows: Cultivate with spade harrow or spring-tooth cultivator, then harrow with iron harrow, sow with seed drill, roll and thin, go over the land with a weeder, used also in corn cultivation. My reasoning is this: When clover sod has been fall plowed, manured in winter, the manure (the straw of which has been all cut) worked into the surface soil in spring, and the land subjected to thorough cultivation during the process of the growth of the corn and root crop, that surface soil which has been constantly stirred during the summer is the best portion of the soil for receiving the grain and grass seeds the following spring, and giving them a ready start; therefore, the surface soil should never be plowed, and thus turned under. Any system of fall and spring cultivation which will enable us to retain the surface soil on top should be adopted. So long as we can get a fine tilth sufficient for a seed-bed, I find the grain crop will stand up very much better if the under soil is comparatively solid.

An experience of three years' trial in plowing a part of my corn and root ground in the fall, and just cultivating the balance of it in the fall and again in the spring, as above indicated, has shown me that the grain yield is better; it does not lodge so readily, and a much better stand of grass seeds is obtained by surface cultivation than by plowing in the fall.

It may be added that, although in a general way the

three-year system is followed, yet I find I do not require one-third of my cropping land in hay, so I sow the whole field to clover all the same, and after harvest allow the stand of young clover to grow right along till fall, when it is plowed shallow and sown to a grain crop the following spring, by cultivating the surface with the spade and iron harrow before sowing. I find, however, that upon the quite loose soil which the fall plowing gives, the grain crop lodges to a greater extent than that which is sown upon the corn land prepared by surface cultivation. To my mind all grain crop does better upon fall plowing than if the land is left till spring before being plowed.

In sowing clover and grass seeds for a single crop of hay, to be plowed afterwards, I sow a mixture of six or seven pounds red clover, two of alsike, and four pounds timothy per acre; or in place of the timothy, what is better, four pounds orchard grass. Sow the seeds with the seed-drill, depositing in front of the drill shoes (I use a shoe drill, with three links dragging behind each shoe), after which the grass seed is buried, by rolling first, and then going over the field with the corn weeder. In sowing the orchard grass, it must, of course, be done with a grass-seed sower, as the attachment for seeding on the seed drill will not sow it.

Huron Co., Ont.

THOS. McMILLAN.



W. W. Hubbard.

Corresponding Secretary New Brunswick Farmers and Dairymen's Association.

New Ontario Problems.

To the Editor "Farmer's Advocate":

Sir,—I have to thank you for the interest you have taken in our district. As regards difficulties to be faced up here, in my opinion spring and fall frosts are the greatest. Guided by my experience of last year, I shall this spring take care that all delicate crops—such as tomatoes, squashes, early potatoes, etc.—are so placed that the early sun cannot reach them. I found that where crops were equally exposed to the frost, those which were sheltered from the direct sun rays in the early morning were little damaged, whereas those upon which the sun's rays fell direct were ruined. The frost must be thawed out of the foliage by the warmth of the atmosphere before the sun touches it. I shall, therefore, protect from the east side as well as the north.

Our troubles are flies, bad roads and speculators. The late Government did a great deal for us as regards the road question, but were not, I think, discriminating enough. For example, it is a fact that there are settlers within two miles of New Liskeard who have nothing but a "jumper" trail! In my own case, although only five miles from Liskeard (the business center of the district), it is a full day's journey to Liskeard and back, one way empty and one way loaded, although the load rarely exceeds 500 pounds. The alternative is to carry stuff in on one's own back.

The fly question will, of course, partly settle itself as the country is opened up and drained; but the prospects of an early riddance from the pests are at present somewhat gloomy, owing to the vast amount of land held by speculators.

In my own township, only six miles square, there are over 30 farms known to be held by speculators, who, of course, are doing no clearing or cultivation. These untouched farms not only harbor the flies, but perpetuate the danger from fire; apart from the fact that bona-fide settlers are kept out, being unable to obtain land.

Then there is the old difficulty of stumps. Cannot someone invent a suitable stump-puller, which will be cheap enough for the average settler, and strong enough to pull, say, a fifteen-inch stump? A small fortune awaits the inventor. GEO. W. WEAVER, Temiscaming District.

Treatment of Mucky Land.

In looking over a recent issue of the "Farmer's Advocate," I noticed on page 329 an article entitled, "Preparing for Seeding." The latter part of this article gave me encouragement to relate some of my experiences with black or mucky land. I have a piece of muck peat land that is from three feet to twenty feet in depth. After working hard to clear it up from soft maple, elm, and tamarack, and then prying up immense quantities of black ash trees out of the muck, I could not succeed in getting a crop that paid me. I found that by seeding down to timothy, I could get a fair crop of corn the first year (if the frost did not catch it), or beans, but the second crop of anything that was sown did not pay expenses. I tried seeding down with timothy after the last time of cultivating the corn, but some years the season was too dry, and I did not get a catch.

After putting in a tile drain, I noticed that where the clay had been thrown up and become mixed with the muck the hill of corn that was on it was always far better than on any other part of the field. This led me to try an experiment. In the fall of 1900, having a little slack time, I got the township two-wheel scraper, and put the hired man and team drawing clay from a hill that happened to be close by. I plowed the hill before scraping, and put on one large scraperful to about every six or eight feet of muck land. This was a lot of work, but mostly for the horses, but I believe it will pay me. I sowed it that fall to Dawson and Clawson wheat, and got a return of forty bushels to the acre, then seeded to clover and timothy, getting two to three loads of hay to the acre. The following spring I broke up the meadow, and planted it to beans, which turned out forty bushels to the acre, for which I received \$1.25 per bushel. Again I seeded to wheat, but the wheat was badly winter-killed. On account of having a good catch of timothy I let it stand, and I cut 1½ tons of hay to the acre.

To follow up with this rotation of wheat, hay and beans would seem pretty hard on the land, but I had to work hard for this land, and I intend to make it work hard for me. Do not be afraid of putting on too much clay, for I notice that it has a tendency to conserve the moisture, and that there is far less risk of frost. If the clay is put on pretty thick you will not be troubled with so many weeds. If you can get the clay within a quarter of a mile I think it will pay well to haul it, and the work for man and team is not too hard. Hoping this will help someone who is situated as myself.

EASTGATE HUMPHREY.

Protect the Producer.

To the Editor "Farmer's Advocate":

Sir,—The recent references in the Canadian Associated Press despatches to the adulteration of Canadian goods offered for sale in the British market, deserve more than passing notice. Careful inquiry elicits the information that such adulteration actually takes place, and, further, that canned goods offered are frequently not up to the sample offered. The Government has prosecuted in a number of cases, but the Ministers confess themselves helpless in the matter (the evil being so widespread) unless the Canadian people as a whole declare their practical earnestness in the matter. Such a state of affairs is simply deplorable, and the producers of this country must be up and doing, or see the labor of many years come to nothing.

Those whose business it is to look into such matters simply must "find a way or make it," to protect the toilers in this matter. Clearly it is useless for the Canadian producer to produce honest meat or fruit or tomatoes, or goods of any kind, if a few exporters or middlemen have the opportunity of polluting his goods, or of misrepresenting him on the market. Inevitably the producer's eye must be on his financial returns. Few can afford to produce for mere amusement, and in this instance we have a condition of affairs whereby Canadian products have been condemned in the world's greatest market. The British buyer refuses to be cajoled. He knows what he wants, and no singing of loyal songs or sentimental declarations on our part can persuade him to buy what he doesn't want.

Our duty is plain. It is to see to it that every can of goods and every ounce of maple syrup, etc., and every pound of cheese or butter sent out is up to the standard it is sold for, and to see that our goods on the market are given a fair field. Common sense demands this much at least. Let inspectors be appointed in some such way as treasurers are appointed for large concerns. Let each mistake on their part mean financial loss to the parties making it. This is not a matter of mere politics, but a matter involving the living and honor of the ten-thousands who compose our working and producing classes. Let this matter be discussed at every gathering of farmers. Let petitions be drawn up and signed by all parties interested, demanding that the authorities take stringent measures to eradicate this violent moral disease, and the day will not be distant when no one will dare to misrepresent the producers of our country. There are difficulties in the way, but it is the business of statesmen to overcome difficulties.

J. M.

Microscope and Reading-glass.

I have received the reading-glass and microscope (premiums), and would say that I am well pleased with them. Wishing you every success.

Peterboro Co., Ont.

J. C. MANNING.

Seeding in P. E. I.

To the Editor "Farmer's Advocate": Questions of cultivation and seeding cover one of the most important matters connected with agriculture. Good, clean seed, of strong vitality and of a variety suited to the locality, is of first importance, and the preparation of the seed-bed is of equal importance. The two go together, and when properly attended to we have done our part toward securing a good crop. The soil on the Island generally is a clay loam, and under it a heavy clay subsoil. It will lump if worked before perfectly dry. The most suitable and popular wheat grown here—quality and yield considered—is White Fife. In oats, Banner and Black Tartarian have stood the test of time. In selecting seed, we take it from a field that has produced a good crop, and in cleaning give plenty of wind to blow away all the lighter grains. With a broadcast seeder we sow three bushels of oats and two bushels of wheat and a bushel and three pecks of barley to the acre. In seeding down with it, we might sow the oats a little thinner. Our experience in sowing a mixture of oats and barley, or oats, wheat and barley, has been that it pays. We get more feed per acre. Where land is fall-plowed, we cultivate with disc harrow, and level off with spring-tooth before sowing; then sow and cover with spring-tooth, and smooth off with spike harrow. In spring plowing on sod, we would use the spring-tooth and spike harrows; same on soft land. The disc harrow is apt to cut up spring sod plowing too much.

In seeding down, we use a mixture of the common and mammoth red clover, about 2 1/2 pounds each to the acre, and a pound of alsike and half pound of White Dutch also. This, with eight pounds of timothy to the acre, we consider makes a good seeding. The early clover in the mixture gives us a good aftermath, and the mammoth gives us more bulk of hay. We prefer to cover the grass seed with a light spike harrow, as it is easily possible to get it in too deep.

WALTER SIMPSON.

King's Co., N. B., Cultivation Methods.

By preference I sow White Fife wheat, which may not give as good a yield as some other varieties, yet makes a very fine flour from such mills as we have here. Have sown Banner oats chiefly, with good results; like Sensation very well. Mandscheuri barley, six-rowed, does extra well in Southern New Brunswick. When cleaning seed grain, I clean thoroughly with a Chatbam mill, and continue running it through until I have the largest of the grain to sow. We find it important to keep the land free of weeds. The amount of grain which I sow per acre is as follows: Wheat—From 1 1/2 to 2 bushels. Oats—From 2 1/2 to 4 bushels. Barley—From 1 1/2 to 2 bushels.

If land is good for seeding down, the smaller quantity is used; otherwise, the larger.

In preparing land for seeding where fall plowed, if sod and well plowed, I prefer to sow at once before harrowing, as the seed gets well covered and seems to give a better return. Stubble and potato or turnip ground is well harrowed with disk or spring-tooth, sown, and well cultivated after, then rolled at once. If seeding down, I sow from 8 to 10 lbs. of clover seed (generally mixed), and from 2 to 4 of timothy, and cover with weeder, then roll.

One year I ran the weeder over an oat field twice when the oats were quite large, and know it did not hurt them in the least; cannot say that it benefited them much, but they were a good crop.

The soil here is a sandy loam, with gravel subsoil; upland more of a clay loam. H. F. HAYES.

King's Co., N.B.

Barn-plan Enquiries.

Many enquiries have recently been received at the office of the "Farmer's Advocate" for barn plans, some suitable for small farms and herds, some for large establishments. It would be practically impossible to present a plan that in every particular would meet with the approval of either class, or, perhaps, of any two farmers. The best that can be done is to publish sample plans of barns that have been built, and to suggest that such features of these as are found suitable to individual cases may be adopted, and others discarded. The plan of the barn built by Messrs. Dryden & Son, shown in the issue for February 23rd, though on a large scale, may be modified to smaller proportions. The plan of Mr. Brodie's barn, found in the same issue, is suitable for a medium-sized barn, and that in the present issue for a smaller size. By a little calculation, the good points in these may be adopted in a barn of any size desired. It is impossible for us to do justice to requests for plans without knowing the conditions in detail. No other man can plan a barn nearly so well as the one who intends to use it. We could easily draw a plan, but to suggest such a one as we would build for ourselves would require days and weeks of consideration. Will propounders of such requests please take note.

Canadian Forestry Association.

(Specially reported for the "Farmer's Advocate.")

The sixth annual meeting of the Canadian Forestry Association, which was held at Quebec on Thursday and Friday, March 9th and 10th, was a most interesting and successful one. The attendance, though not so large as could have been desired, was thoroughly representative of those interested in Canadian forests and their products. The presence of a number of American foresters, who took an active part in the discussions, was most welcome.

The annual report of the Board of Directors reviewed the progress made during the year by the different provinces in forestry matters. This showed that substantial advances had been made in fire legislation in Quebec and Nova Scotia; that the resolution of last year regarding the desirability of making a special effort to protect the lands from fire through which railroads were being constructed had resulted in very satisfactory steps being taken by the railroads and governments concerned; that very satisfactory progress was being made by the Dominion Forestry Branch in its great work of tree planting on the Western plains. The establishment of a nursery by the Ontario Government to provide suitable planting stock for wood-lot improvement was heartily commended. The directors feelingly referred to the losses to the association through death since the last meeting, that of Mr. John Bertram, who

means for protection from fire, (2) the separation of timber lands from agricultural lands, (3) carefully-selected corps of permanently employed foresters, (4) restrictions as to the cutting of undervalued timber. This paper was followed by a very interesting discussion, in which was raised the point as to the relative advisability of increasing the stumpage dues, or of increasing the ground rent on timber limits, where the Province deemed it fair, to receive a larger return on account of the increase in value of the standing timber. There was, unfortunately, not sufficient time available to fully discuss this most interesting and important point.

The fire-warden service of Nova Scotia was presented in a paper by the Hon. J. W. Longley, Attorney-General of Nova Scotia. It would appear that Nova Scotia has what is probably the best fire law of any province in the Dominion. The results of its administration have been very satisfactory during the year since it was enacted. Mr. J. C. Langelier presented a very interesting and comprehensive paper on the forest resources of Quebec. While it was, of course, impossible to speak very definitely as to the forest resources of this great Province, Mr. Langelier showed by very conservative statistics that they were very great. He pointed out that the greatest dangers to this resource were those of fire and the "timber sharks," who, under the guise of settlers, did great damage to the legitimate lumbering interests, and to the Province.

A very interesting feature of the association meeting was a telegram from Senator Edwards, to the effect that the Premier of Canada had expressed his desire that a forestry convention be held during the coming summer or autumn in Ottawa, and conveying the assurance that the Dominion Government would render suitable aid to such convention. The association expressed its gratification for the interest taken by the Government in this matter, and authorized the Executive Committee of the association to confer with the Honorable the Premier, and take such steps as may be necessary to carry out the proposed convention. A strong resolution, commending the policy of setting apart the non-agricultural lands as permanent forest reserves, was unanimously carried.

The public meeting in Morin College on Friday evening was most successful. The writer gave an illustrated address on the forest as a national resource, and Mr. W. F. H. Addison gave a most interesting account of student life at a forestry school.

The Quebec members of the association did everything in their power to give the delegates a thoroughly good time while at Quebec, and they abundantly succeeded.

The following officers were elected: Patron, His Excellency Earl Grey; Hon. President, Aubrey White, Toronto; President, E. G. Joly de Lotbiniere, Quebec;

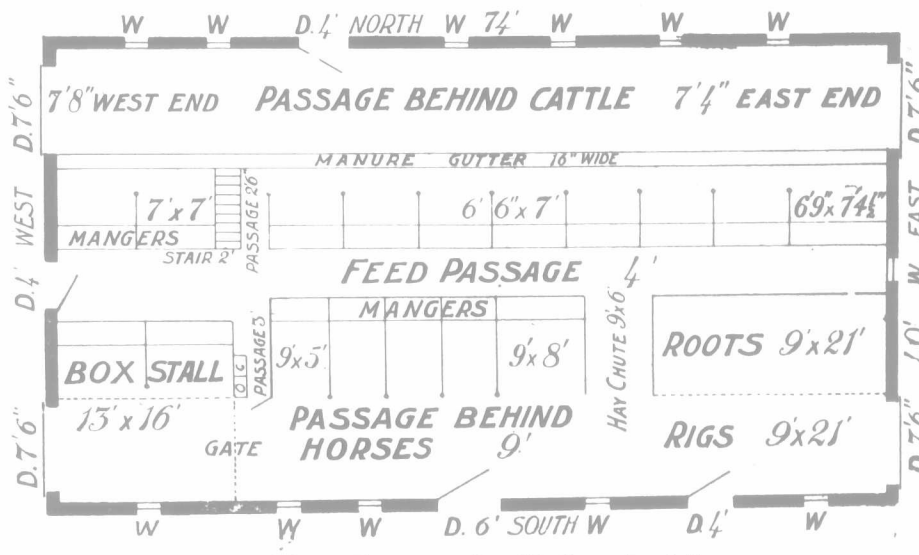
Vice-President, E. Stewart, Ottawa; Secretary-Treasurer, R. H. Campbell, Ottawa. Board of Directors: Thomas Southworth, Toronto; Wm. Saunders, Ottawa; Dr. Bell, Ottawa; J. R. Booth, Ottawa; Hiram Robinson, Ottawa; H. M. Price, Quebec; Mgr. Lafamme, Quebec.

Sorry He Left the Farm.

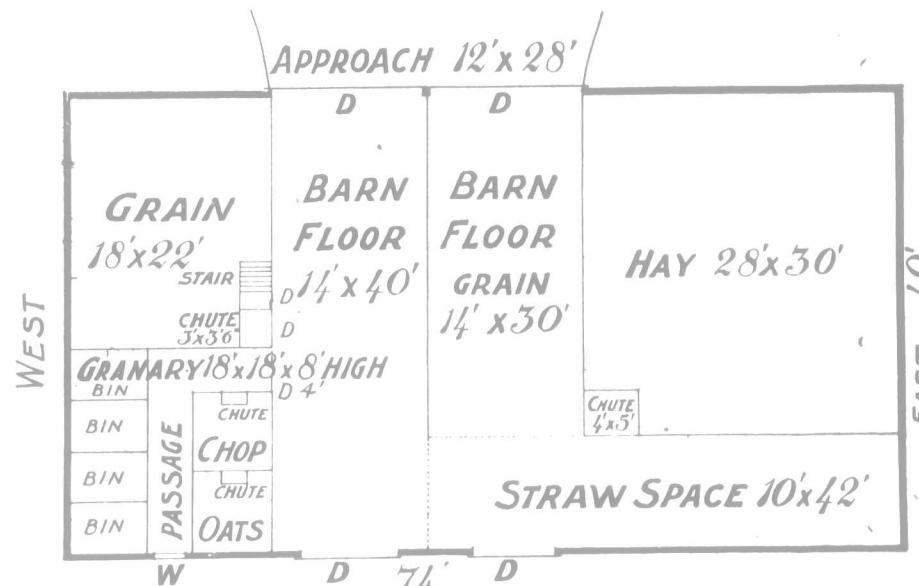
"I have done as many another poor farmer has done to his sorrow—quit farming and moved to town. If I ever get on a farm again and anybody comes out from the city and tells me that I can make more money in the city than on the farm, and not work so hard, I will let it go in one ear and out of the other, but will stay on the farm. I wish I were able to go through the country and tell the boys to stay on the farm, but I guess they will have to learn their lesson the same way I learned mine."—[Correspondence Wallace Farmer.]

It Holds Good.

Enclosed find \$1.50 for my subscription to the "Farmer's Advocate and Home Magazine." I think you struck the right heat and made a good Weld when you started to publish it weekly. YORK CO., ONT. JAMES BRETT.



Plan of Barn Basement for Medium-sized Farm.



Second Floor of Barn Plan.

has done so much for Canadian forestry, being especially lamented.

On Thursday morning two papers dealing with forest fires, the first referring to conditions in British Columbia, by Prof. R. W. Brock, and the other dealing with forest protection on Dominion lands in British Columbia, by James Leamy, were presented. These were followed by a very interesting discussion, and later by the adoption of resolutions, pointing out to the British Columbia Government the desirability of establishing a system of fire ranging on its forest lands, and suggesting that arrangements should be made between the Government and railways for co-operative protection of lands in the vicinity of the lines of railway, also in regard to the desirability of clearing the right of way of railways of inflammable material. It was also resolved that it was highly desirable that the British Columbia Fire Act be amended so as to make it unlawful to set fires for the purpose of clearing lands except by permit, and giving the fire rangers the authority of constables in connection with all offences under the Fire Act.

The paper on forest insects, by the Rev. T. W. Fyles, was most interesting and complete. Col. P. G. Loggie, of the Crown Lands Department at New Brunswick, gave a paper on the forests of New Brunswick. In summing up the needs of this Eastern Province, he stated that in his opinion they were (1) more effectual

Sugar-beet Pulp Feeding: 2nd-prize Essay.

By James Early, Peel Co., Ont.

This is the first season that I have had any experience in feeding sugar-beet pulp, but the results have been so satisfactory that I consider it an excellent subject for your competition. I received a carload of pulp from the factory about the 1st of November last, and have been feeding it since that date. As I believe in doing a little experimenting for myself, and have watched rather carefully the results obtained from this new food, I will try to reply to your questions, and point out what I have learned in connection with it.

1st—The storing of the pulp cost us very little trouble. We piled it in the open air, against the side of the barn, where the feed-room was situated. From what I have observed and been told I think this is the best way. As the pulp is very wet, it should be put in some place where the water can run off. If it is put inside, it will have to be put in the stable to be easy of access, and it will be a difficult matter to get the water away, and will also make the stable damp and unhealthy for the stock; it is also likely to heat and spoil. In fact, I know of several cases where it has done so when stored inside.

Of course when it is piled outside it will freeze to some extent in winter; but by putting a door in the wall and piling the pulp up to a height of ten or twelve feet, there need be no difficulty on that point. A solid frozen crust will form on the top, and will prevent the pulp underneath from freezing, and all that is wanted can easily be got without disturbing the frozen layer at the top. We have had no trouble in getting at our pulp all winter, and it is as fresh and good now as when we received it last fall.

2nd—We have fed the pulp to milch cows, steers, pigs and hens. For the cows we mixed it with cut straw and ensilage, and fed it with grain twice a day, and hay alone once a day. For the steers we mixed it with cut straw only, and fed it and grain twice a day, and hay once. The pigs were fed the following three times a day: One part mixed grain, three parts clover chaff, and three parts pulp. The hens received pulp, mixed with an equal quantity of bran and grain.

3rd—While feeding our cows on pulp we have received the most gratifying results. They milk well, and no unusual taste or odor is imparted to the milk. At the time we got the feed, four months ago now, we commenced to feed it to a pair of steers. This pair got the rations described in number "2," and have done well the whole time, gaining four hundred and eighty pounds in the four months. They were very thin when we commenced to feed them in the fall, but, with the addition of a half gallon of grain twice a day, from now on will make grand shippers by 1st May next, or sooner; in fact, a dealer offered to buy them for shipping purposes last week. This, I think will show the benefit derived from feeding pulp to cattle. We fed four hogs on the mixture described in number "2," for the three and one-half months prior to the time when they were sold. They were sold when six and one-half months old, and weighed nine hundred and thirty pounds, live weight. I think the last is the best result that we have ever obtained in feeding hogs, and one very hard to beat. The pulp also seemed to agree well with our hens, and they appeared to relish it. In fact, all our stock soon got to like it, and they never were in a better or healthier condition than they have been this winter.

4th—I think the pulp is worth about the same as ensilage for feed. For milch cows I would rather have pulp and hay than ensilage and hay. To test its value as compared with roots, we tried an experiment. For two weeks we fed our milch cows roots instead of pulp, and we found that they milked as well and kept in as good condition when they were getting the pulp as when they got roots. The roots fed were turnips and carrots. I prefer pulp to roots, as it is ready to feed all the time, and requires far less work in handling. I do not compare it with dry corn fodder, as I consider it much superior to it in every way.

5th—The pulp should not be fed to stock in too large a quantity before they become used to it, or they will turn against it. It is also liable to make them scour if fed in too large a quantity.

6th—Two dollars per ton when in the wet state—that is, just after removing from the cars—would be about the value of the pulp then, I think. After the water has drained off, if piled as stated in number "1," the value should be about four dollars per ton. This is about the value of a ton of roots on the farm, and I think that the pulp is worth as much as the roots for feeding purposes, and it has the advantage of being more easily handled.

It is Practical.

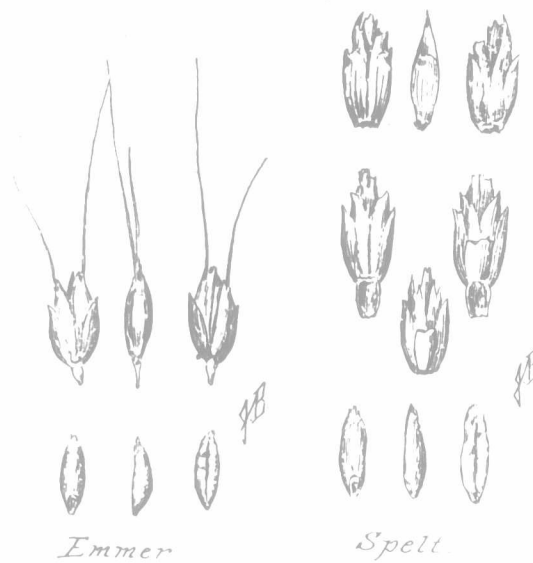
Among the many farm journals published, the "Farmer's Advocate" is the most practical and up-to-date. The progressive farmer cannot afford to do without it. JOHN J. PRESTON, Bruce Co.

Markets and Veterinary Answers of Great Value.

Enclosed please find \$1.50 for one year's subscription to the "Farmer's Advocate and Home Magazine." I like the paper better every day I read it. I think the Markets and Veterinary Department of great value. JAMES M. HILL, Middlesex Co., Ont.

Difference Between Emmer and Spelt.

In view of the success which seems to attend the growing of emmer in many parts of Canada, it is well that we should bear clearly in mind the difference between it and spelt; which is not nearly so productive. They are two distinct types of wheat, and there are a number of varieties of each. The distinguishing characteristics are pretty well illustrated by the accompanying cuts. They are alike in that the grain of each is tightly enclosed within the chaff, from which only a small portion is separated in threshing. The heads of emmer are short, compact and nearly always bearded, while those of spelt are long, narrow, open, and usually bald. The spikelets of emmer overlap each other, like shingles on a



roof, making the head close, smooth and regular. That part of the stem which adheres to the spikelets after threshing is much smaller and more pointed in emmer than in spelt. The spikelets of emmer are flattened on the inner side, while those of spelt are arched. In the case of emmer, the grain is harder and the chaff softer than in spelt. Emmer is considered particularly hardy, and is worth trying in districts where barley cannot be depended upon. In co-operative experiments over Ontario, it has given excellent results, while favorable reports as to yield and feeding value have been published in the "Farmer's Advocate" from time to time. We should be pleased to hear further experience with either of these grains, particularly the varieties of emmer, which have been found most satisfactory in the respective localities where grown.

Mixture for Pasture Crops.

By Prof. C. A. Zavitz.

A large number of varieties of grasses and clovers have been grown in the Experimental Department of the Ontario Agricultural College, both singly and in combination, for pasture and hay. The mixture of seed now used for the production of pasture for a two years' stand in the short rotation on the College farm, is as follows: Red clover, 7 pounds; alsike clover, 2 pounds; timothy, 4 pounds; and orchard grass, 5 pounds, making a total of 18 pounds per acre. This mixture can also be used for hay, but when the chief aim is the production of hay, the orchard grass is not included, and only fifteen pounds of seed per acre are sown.

When pasture crop is likely to be deficient in the coming season, we find that we can get better

returns from a combination of varieties than from any one variety sown by itself. The following mixture, when sown in the spring, is likely to be ready for use at about six weeks after the seed is sown and to give good satisfaction in furnishing pasture throughout the summer: Oats, one and one-half bushels; Early Amber sugar cane, thirty pounds; and common red clover, seven pounds; thus making a total of eighty-eight pounds of seed per acre.

From twenty years' results in testing different varieties of grasses and clovers, both singly and in combination, we would suggest the following mixture for permanent pasture on an average soil: Orchard grass, 4 pounds; meadow fescue, 4 pounds; tall oat grass, 3 pounds; timothy, 2 pounds; meadow foxtail, 2 pounds; lucerne, 5 pounds; alsike clover, 2 pounds; and white clover, 2 pounds; thus making a total of 24 pounds of seed per acre. Some of these varieties produce grass very early in the spring, while others are later, and furnish a good bite during the hot dry weather which occurs frequently in the months of July and August. The seed can be sown in early spring, either with or without a grain crop.

Harrowing Spring Grain.

To the Editor "Farmer's Advocate":

A question was asked recently, through the columns of your paper, as to the advisability of harrowing spring grain after it was up. To my mind this system should be discouraged, because it is the opposite to the methods of tillage which are recognized as being the best.

One of the essential features of crop growing is the growing of clover. All cultivation and rotation of crops should be planned with this feature in the forefront. Clover increases the capacity of the farm for stock-raising, and while growing adds to the fertility of the land in nitrogen, and at the same time improves its condition mechanically, we must not lose sight of this in all our farming operations, and whatever means are suggested as a help to the other crops, if they are not conducive to the growth of the clover, they must not be given a place in the routine.

When we come to consider a system which, in nine cases out of ten, must prove detrimental if not fatal to this all-important crop, we should not encourage its adoption.

Harrowing a spring crop may not be so bad on land where there is no clover sown, but this is the point, clover should be sown with every spring or fall grain crop, whether it is wanted for an after-crop or not. The catch of clover in preventing the growth of weeds and keeping the ground moist and mellow for fall plowing would be sufficient to make it pay, and often a little extra pasture can be had from a stubble well filled with new, fresh clover, though pasturing it extensively is not good practice.

The principal thing I wish to point out is that by following the above plan (sowing clover always) the farm will soon be in condition that harrowing the grain crop will not need to be resorted to, for the land will be less liable to bake, and having the increased amount of humus will hold the moisture better, resulting in greatly increased crops.

The time taken in harrowing is worth about as much as the clover seed to sow the ground would cost. If the field is seeded by the drill when the grain is sown, it will be buried deeply enough so that any later harrowing would not benefit it in that way. If the seed is sprouted, or up at all, the harrowing would probably kill it altogether. Good farmers run and clean out the furrows, in all but light sand, and it would be a great loss of time to do this and then turn round in a couple of weeks and harrow them full again. On most land, especially in wet seasons, the absence of clean furrows to carry off the water would have a most damaging effect, doing more harm than any possible good that could be done by harrowing. The harrow would only be beneficial to certain kinds of land, and on these sometimes impracticable. For instance, the clay which had got baked would be most of all benefited, but a harrow would not break this crust; the only thing which would break it up would be a cultivator, and this method would prove fatal to the crop. Then on light land, if the surface soil is stirred lightly, the result would doubtless be beneficial, but any harrow in general use would be too heavy for this condition of soil, sinking so deeply as to uproot the whole crop. If anything be done on this kind of land it should be treated with what is called a weeder. This implement is excellent for running over corn and potato ground for some time after the crop is up, stirring the surface, conserving the moisture, and disturbing the rooting of many troublesome weeds; and will not damage the corn and potatoes, as they both will stand a lot of hardship.

In the Northwest there is an abundance of weeds, such as wild buckwheat, lamb's-quarter and fireweed, which come from very small seeds, and the plants are very tiny at first appearance, so the least disturbance on a warm day is generally fatal to them. But in this Province there is not so much trouble with these weeds, and it is very doubtful if much could be gained from harrowing a grain crop with this end in view. By adopting the best methods of cultivation the condition of the soil can easily be so improved as to make harrowing unnecessary.

Wentworth Co., Ont.

J. R. H.

Spring Seeding in N. B.

The soil in this district, Victoria Co., consists of clay, for the most part. It remains cold until well into June, mainly on account of the depth to which the frost penetrates, often from two to three feet. Much of the seed grain often perishes on this account, and growth is usually slow until well into July. Were we to seed as thinly as is found sufficient in Ontario, it would stool out so as to prevent maturing in most seasons until the frost was on it. It is sometimes forgotten that a large part of the best land in New Brunswick is in the latitude of Nipissing; that the most southern point is in the latitude of Northern Muskoka. Nevertheless, I believe with the liberal use of good seed and the experience to be gained by years of practice, agriculture can be as successfully carried on in this Province as in Ontario, within certain limits. If we cannot do better, I think we can do as well, with oats, grass, turnips, and potatoes. But I am of the opinion that if someone from Ontario were to use here the system which has proved best there, he would make as great a failure, most seasons, as I should expect one from here should by carrying his system into Ontario.

From the above statement you will have gathered that the main crops grown here are those mentioned. Wheat does well on a limestone foundation, but is a doubtful crop on a cold soil. Buckwheat is largely grown in most sections, and is a great stock feed when ground and mixed with chopped oats, for milk, beef or pork, or whole for poultry. Barley does very well on a suitable piece of land. Peas do well, most seasons, if sown very early.

The general practice here in the selection of seed grain is to use only the very earliest varieties, and to sow what is to be the following year's seed first in the spring. The earliest-ripened grain is usually the heaviest, and a free use of the fanning mill makes it more equal, leaving only the most mature. We generally sow from four to five bushels to the acre; sometimes even six bushels. A warm, shallow soil will have sufficient seed with 2½ bushels to an acre, but a heavy clay, especially in an exposed situation, i.e., where the snow blows off during the first of winter, must be very close seeded to insure a good crop. Our seed time is very short; not over twenty days from the time we can work on the land until all grain must be in the ground, that we can count on as safe from frost. Buckwheat can be sown a week after oats would be considered late. One bushel is sufficient for good land per acre; two bushels is not too much when the land is not rich. The ground must be warm before buckwheat will germinate. It may sometimes be called a forlorn-hope crop, as it is often sown because the ground was not got ready in time for oats, and it usually turns out well, although very little frost will kill it at any stage of its growth. Two bushels of wheat is the usual quantity sown to an acre.

Our seeding season being so short, all grain land should be plowed the previous season. Our usual method in the spring is to break up the furrows with a spring-tooth, so soon as the ground is sufficiently dry that the harrow will work clean in it. If the seed is to be sown broadcast, we do so as soon as the land is levelled well up with the spring-tooth, and harrow the seed well in with the steel fine-tooth harrow. If it is to be sown with the drill machine, we work the ground fine with the various harrows before sowing the grain, and then level off with the fine harrow.

For grass we sow only red and alsike clover, and timothy. We sow from four to seven pound of mixed clover to the acre. Sometimes ten pounds of clover has been tried, and I think this quantity will become common. We sow from three to seven pounds of timothy seed, according to the soil and its condition. We sow the clover and grass seeds mixed, after the grain crop has been sufficiently harrowed, covering it with one stroke of a short tooth harrow.

I came from Scotland to this place, and was hard hit by persisting in applying Scottish methods indiscriminately here. But, after failure upon failure, I began to look into the methods of the native farmer, and was glad to adopt a good many of them. I found they just set me right, where the methods that were so successful in Scotland were simply starving me out. For all that, we have learned much from Ontario farmers, and also from experts from the various departments of the experimental farms, who sometimes attend our institute meetings. W. L. McPHAIL.

A Yearbook of Agriculture.

A noteworthy publication is the Yearbook of the United States Department of Agriculture. Though reduced in size, compared with former years, it still contains over 700 pages, and the last volume now before us ranks quite equal to its predecessors in the quality of its contents and illustrative features. Beginning with a prefatory note by the efficient Editor of the Department, Mr. Geo. W. Hill, the report or annual review of the Hon. James Wilson, Secretary of Agriculture, follows, succeeded by a valuable series of special articles of timely interest to the industry, and concluding with an appendix, which gives a very complete record of agriculture as organized in the Republic at the present time, including all the public departments, the educational and experimental institutions, live-stock associations, and statistical information. It is a remarkably fine example of the progressive spirit of our neighbors, who were never more alive than they are to-day to the interests of agriculture.

DAIRY.

Progress of the Jersey Cow.

Hark Comstock, writing in the Country Gentleman, says:

The Jersey team in the test at St. Louis was a much greater one than that of eleven years previous at Chicago. This shows in a higher percentage of the fat straight through, and also the greater flow of milk. Brown Bessie was the great milker at Chicago. In her thirty-day and ninety-day contests she averaged a fraction over 40 pounds of milk a day. The whole St. Louis team during 120-day tests averaged 41.05 pounds of milk a day. That the average cow at St. Louis should have beaten the best cow at Chicago speaks well for the progress of American Jersey breeders in improving the dairy capacity of their stock. It also speaks well for the selection and handling which the team received by the committee and by the employees. It was a great victory, and one that brings great credit to the breed and management.

The breeding of the winning Jersey team at St. Louis shows the effect of aiming directly at an objective point in each step of the breeding problem. If American breeders have insisted upon one point more than another when selecting a bull, it has been that he should be out of a great butter cow, and carry as many crosses of great butter cows as possible. Special family has received some consideration, but, as a rule, the crossing of different families has prevailed. Some of the crosses have nicked, and some have not. A few breeders have set up an exclusive standard and sought to teach the public that families should not be crossed, but that each should be bred in-and-in to a "pure" state. We have been told that Americans generally have been sacrificing "type" by cross-breeding their families. It



Carrie.

Grade Ayrshire cow. Winner of the championship in the two-days test at the Eastern Ontario Dairy Show, Ottawa, 1905. Exhibited by T. A. Spratt, Billings' Bridge, Ont.

has been claimed that we should breed for type—a show-ring type—and that in doing so, yield would take care of itself as a bred characteristic. The Island types have been held up to us as a pattern to follow. The argument has had its effect. Island types have commanded the highest prices.

The reason for this has been that the showing has afforded a wider field of profit than any other. The show cow is judged on type. Ideal type means a good dairy cow; it can hardly mean a poor one. But as between the "good" and the "greater" in dairy quality the scale of points cannot determine. The prolonged public dairy test alone settles that question.

Dairy School Literary Society.

The dairy class of the Ontario Agricultural College is in full operation, with an attendance of sixty in the regular course, and fifteen in the farm dairy class, with daily additions to the number. Besides the practical work, the students receive instruction in the several studies that underlie the science of dairying. That the members of these classes are alive to their opportunities has been shown in their organization of a literary society, for which the following officers were elected: Honorary President, Professor H. H. Dean; President, H. Lunn; Secretary, D. F. Stewart; Treasurer, Miss Green; Critic, Miss Rose. Meetings have been held every Saturday afternoon, and, judging from the character of the debates, the impromptu speeches, and the spirit of the discussions, it is evident that the class of 1905, as it is made up of the best material, will be a force in the Canadian dairy industry.

One Judge or More?

One of the most perplexing problems that directors have to deal with in connection with our agricultural fairs is the getting justice done in awarding prizes.

It has been thought that the one-man judge, an expert so called, would relieve the difficulty. Our Government officials, noticing the trouble, have endeavored to come to the aid of directors by having classes formed for men to acquire the art of properly judging stock, but this, to my mind, is a failure, and not satisfactory to exhibitors. Also, many of our agricultural society officials have asked the several breeders' associations to recommend suitable men, those they know to be good judges, but this has only added more trouble. For instance, leading, or selfish, breeders can, and I believe do, use this opportunity to see that a man is recommended that they can work, or, better, will work for and with them. I have seen this game played more than once. For instance, if the Shorthorn breeders were to recommend a prominent Scottish breeder be judge at Toronto, I wonder how many animals in the English families of Shorthorns would get prizes if there were any Scotch or Scotch-topped ones there, or vice versa. Or, again, if an American importer of Island Jerseys, one interested mainly in that class, was appointed judge of Jerseys, I wonder if any others would get prizes, except the Golden Lad family. Hence, the necessity of having more than one interest represented, or more than one judge.

Again, in judging bacon hogs. This is a great and growing industry, an industry that needs encouraging, and is being encouraged by our pork-packers and dealers, and also specially by agricultural societies and fair associations, by offering handsome prizes, and this should be carefully guarded, and justice done to exhibitors in the awards. Take the one judge here: Suppose a special is given for a number of bacon hogs, suppose a Berkshire, a Tamworth and a Yorkshire breeder exhibited these several breeds, and a breeder of Yorkshires was the judge, where might we expect the awards to go, or vice versa? No, one-man judge won't do, let us have two, at least.

Now, one word more about the ability of some of our "expert" or would-be expert judges. Compare the stock they themselves own with the stock they are sometimes called to judge, or with stock owned by many modest but successful breeders, who do not pose or masquerade as "expert judges," but whose stock would put to everlasting shame that of some of these pap-fed experts sent out by the Government officials to show their ignorant fellow farmers how to judge. Their placing, in many cases, would be more properly called misplacing, or, "a lesson on how not to do it." I, for one, am sick of the one-judge system, as conducted at present, and I know I am not alone in the opinion that we have need of a better exhibit of ability than we have had before we shall be satisfied with the so-named experts. York Co., Ont. BREEDER.

Care of Salt in Barrels.

Most creameries generally buy their salt in five or ten barrel lots or more. We have noticed that they mostly have the barrels standing up in their store-room or creamery, and by the time the buttermaker comes to use the last barrel the salt is all in one solid lump. This can be avoided a great deal by laying the barrels down. You have no doubt noticed that a salt barrel when opened always has a space of a few inches left from being full. Now, in laying your barrels down, you will have this space extending from one end to the other in the barrel or nearly so, according to how full the barrel is. Then if you will roll the barrel across the creamery floor a few times before opening, you will find the salt will be nearly all broken up and easy to get out of the barrel, saving lots of work, and bad language.—[Dairy Record.]

Alfalfa and Oxygen.

In dairy history the present time should go down as the era of alfalfa and oxygen. The cheap hay that supplants twenty-five-dollar bran, and the cold air that cures milk fever, are each a discovery making dairy profits more certain. If the next fifty years evolve the equal of either of these, another generation of dairymen will be that much better off than we. But think of the blessing of learning these two things within a decade!—[Jersey Bulletin.]

Best of All.

I have been a reader of the "Farmer's Advocate" for at least ten years. I think it is the most up-to-date farmer's paper that I have ever read, and I have read a good many. Since becoming a weekly it is much improved. Wentworth Co., Ont. JOHN MITCHELL.

Wm. H. Hill, Middlesex Co., Ont., writes: "Glycerine is a very fine thing to use when milking cows. It will take off warts, and save a lot of trouble. It surprised me. Every milker should use it."

The Dairy Stable in Spring.

At this season of shedding hair and close stable atmosphere, only scrupulous care will avail to keep the milk clean. It can be done, however, by conscientious cleanliness, to aid in securing which these few suggestions are offered.

1. Sweep any dust and cobwebs from the ceiling and walls. Clean surroundings induce clean habits.

2. Use extra bedding. If the supply is scant, the cutting-box will make it go further, both in keeping the cows clean and soaking up the liquid manure. Incidentally, the litter will work into the land much better than that made from long bedding at this season.

3. Use brush and card to remove loose hair, and scrape off pendant manure particles, usually much in evidence just now.

4. Dampen the flanks and udders just before commencing to milk. By dampness, of course, we do not mean dripping wet.

5. Remove each cow's milk at once from the stable, and strain immediately through two or more thicknesses of cheese cotton. A metal strainer is of little use, except to remove a few coarse bits of dirt, objectionable mainly on the score of appearance. The ideal condition would be to have the milk drawn and separated without coming in contact with a bit of dirt. Under practical conditions a little is liable to get into each pailful, and then the best that can be done is to remove it as soon and as carefully as possible. A cloth strainer is the best means of doing this, provided it is kept clean. Otherwise, the dust, dirt and hair are simply washed up in it, the soluble dirt dissolved, and the myriad bacteria attached brought into intimate contact with the milk particles in the most favorable condition to begin their work.

If you milk with moist hands, do not wet them by dipping into the milk pail, and be sure that no milk drops from your hands into the milk pail. Properly done, wet-hand may be cleaner than dry-hand milking. The former looks filthy because the dirt is dissolved, and then becomes dried and crusted on the hands. Many people who would strenuously object to milking with wet hands, get more dirt into the milk by milking dry-hand, only, the dirt, being dry dust, they do not see it. If milking with wet hands, have a wash-dish and towel in the dairy or separator-room, and wash the hands frequently. By observing this precaution, and rinsing the strainer every pailful, a great deal of the most objectionable filth may be kept out of the milk, and if the milk is properly cooled and cared for afterwards, no preservatives will be necessary to keep it sweet and good for city milk or cream trade, and no bad flavors will appear in the butter.

POULTRY.

Laying Competition.

The Utility Poultry Club of England annually conducts laying competitions, the eighth one of which has recently ended. In the competition, which lasted sixteen weeks, were thirty-six pens of four pullets each. White Wyandottes were the most numerous in the competition, there being thirteen pens of this variety, which ranged from third to last place. Buff Orpingtons were next in numbers, and ranged about as widely. White Leghorns led the list, with 245 eggs for the sixteen weeks. White La Bresse had 240, and White Wyandottes 226. The two lowest pens, both White Wyandottes, laid 113 and 101 eggs each, thus indicating that laying is a trait of a strain, rather than of a breed. The winners in preceding years were: '97-'98—1 and 2, Minorcas; 3, Langshans. In '98-'99—1, Buff Leghorns; 2, Barred Rocks; 3, Golden Wyandottes. In '99-'00—1, Silver Wyandottes; 2, Golden Wyandottes; 3, Buff Orpingtons. In '00-'01—1, Barred Rocks; 2, Buff Leghorns; 3, Lincolnshire Buffs. In '01-'02—1, G. Wyandottes; 2, White Leghorns; 3, Buff Orpingtons. In '02-'03—1, White Wyandottes; 2 and 3, Buff Orpingtons. In '03-'04—1 and 2, W. Wyandottes; 3, Buff Orpingtons. The first year of the competition the record was 161 eggs, but the last four years it has been above 200, the largest being that of '02-'03, 276.

The manager's report says: "All birds have been fed and treated exactly alike while they remained in the laying-houses. When any change of treatment became advisable, they were at once removed. The aspect of the entire range of runs and house is identical, and faces south. The houses, constructed to hold twelve birds each, are open-fronted and partially glazed, and fitted with canvass shutters. The floors are formed of dry dust covered with straw placed on the ground itself. The large subsidiary runs appear to have been most appreciated by the Leghorns and La Bresse. The trap-doors to these runs have al-

ways been arranged overnight, so that the birds had access to the fresh range as soon as they pleased to take it in the mornings.

The 144 birds have had 91 lbs. of mash (weighed dry) each morning. It has consisted of 2½ lbs. each of chopped salad, meat, bran, and meals (which last were changed every day). The meat, bran and meals were scalded together and cooked all night, the fresh-cut salad, which formed half the bulk of the food, being added in the morning. A quart of grain was fed to each twelve birds at night, and half a pint at mid-day. Oats have been the staple food, but barley and wheat have been considerably used, all of which have frequently been steamed and fed warm at night. The grain has usually been fed in the litter, which, in bad weather, has been forked into heaps as often as three times a day, flint grit and crushed oyster shell have always been before the birds. No spices, condiments or patent foods of any description have been used.

Let the Chickens Help You.

We all know how much better our biddies will pay their board bills, and some more, if they can have a chance to run about and scratch and dig, but it is not a very pleasant thing to have them operating about the dooryard or in the garden. There are places on most farms, and lots, where Mrs. Biddy can take her constitutional, and really be a help to the owner. If you have a neglected spot where the weeds and grass have gained a foothold, or if it is rough and hard, scatter fine grain all about and let them hunt for it for a few hours each day, and my word for it, you



Sarcastic Lad 23971.

First-prize and champion Holstein bull at the World's Fair, St. Louis, 1904.
(By courtesy of the Holstein-Friesian Register.)

will be surprised at the work they have done. My peach orchard was so full of rocks, and the space between the trees not wide enough to allow very much turning out for them, that no one was anxious for the job of plowing it, and so it waited nearly all summer, when I called my "feathered plows" up there. Long after the last grain is gone they are at work, and, no doubt, find many a worm, and perhaps a borer, which if left would soon make mischief. Hens, like children, must have something to keep them busy.—[A. M. N., in *Vick's Magazine*.]

S.-C. W. Leghorns Best for Farmers.

In the 19th January issue of the "Farmer's Advocate," W. J. Bell recommends the Leghorns, and gives proof that they are the best all-round fowl, while in the February 9th issue, E. C. Parker attempts to refute Mr. Bell's statements, and claims that the White Wyandottes or Plymouth Rocks are a far better fowl, but I think he fails to prove his claim.

I have Leghorns and Rocks, both in one pen, and the Leghorns laid at five months, whereas an egg-laying strain of Rocks are only commencing to lay. The Leghorns are a hardy fowl, and will lay no matter how cold the house is. They are also non-sitters, and will lay more than any other fowl, take the year round, as, according to the following record for one year of 52 White Leghorns, for Mr. Douggan, of B. C., they laid 9,216 eggs, or an average of 177 eggs per hen. Can Mr. Parker beat this? If so, let "Farmer's Advocate" readers hear of it. I might just conclude by saying that it is eggs the farmer wants, and the Leghorns will lay when they are at the top price, and consume less grain. CLIFFORD CAMACK, Grey Co., Ont.

We can honestly say that if there is as good an all-round weekly agricultural paper as the "Farmer's Advocate," London, Ont., we have yet to see it.—[Canadian Poultry Review.]

List of Utility Breeds.

We have been asked by a correspondent to name the utility breeds of poultry. The professional expert to whom the question was referred suggested two lists, one of general-purpose utility breeds, the other comprising the best special egg breeds. As all poultrymen know, this question of what are the utility breeds is one that has often been fruitlessly debated. No harm, however, can come from the mere expression of opinion, so long as its author does not presume to dogmatize. Some, no doubt, would add Games to the subjoined list, and might omit one or two therein mentioned. The list is open to any poultryman's criticism.

GENERAL-PURPOSE BREEDS.

The following are good for both eggs and table use:

1. Plymouth Rocks—Three varieties, viz., Barred, White and Buff.
2. Wyandottes—Five varieties: Silver-Laced, White, Buff, Black and Partridge.
3. Orpingtons—Ten varieties, the best known of which are Buff, Black, White and Jubilee.
4. Brahmas—Two varieties: Light and Dark.
5. Cochins—Four varieties: Buff, Partridge, White and Black.
6. Dorkings—Three varieties: White, Colored and Silver Gray.
7. Houdans—One variety.
8. Favorelles—Two varieties: Salmon, and another I do not remember at the moment.
9. Rhode Island Reds—Two varieties: Single-comb and Rose-comb.

SPECIAL EGG BREEDS.

Leghorns.—Eight varieties: Single and Rose Bomb White, Single and Rose Comb Brown, Buff, Black, Dominique, Silver Duckwing. Of these, the White, Brown and Buff varieties are best known. Some strains of the White lay large eggs, with white-colored shells.

Minorcas.—Two varieties: Black and White; layers of large white eggs.

Andalusians.—One variety, Blue; lay large white eggs.

Spanish.—Black; layers of large white eggs.

The foregoing breeds and their varieties are classed in the American Standard as "Mediterranean." They are also known as the Spanish Family. They are well-known egg-layers, and are not exploited as table fowls, although White Leghorn broilers are sometimes to be found for sale.

Hamburgs.—Two classes, Black and Spangled. Their eggs are of medium size and white in color.

Buff Orpingtons as Utility Fowl.

Having read the recent articles in the "Farmer's Advocate" by several breeders, claiming the Wyandotte to be the best fowl for the farmer, I thought I would write, giving a few reasons why I think the Buff Orpington superior to the Wyandotte as a utility or farmer's fowl. But before saying anything further, I wish to state, as a breeder of R. C. W. Leghorns, as well as Rocks and Orpingtons, that I can fully endorse all Mr. Bell has said in his recent articles regarding R. C. W. Leghorns as the best for egg production. It has been stated by several breeders that the Orpingtons are no good for broilers, and for that reason not as good as the Wyandotte for the farmer. I just wish to say there is no money in broilers for the farmer; he has not the proper brooder house, or the time to look after them, and had far better sell his eggs during December, January and February, when they fetch the best price, than attempt to raise broilers. Nor has the average farmer the time in June, July and August, in the busy season during haying and harvest, to kill and dress chickens and drive two to eight miles to market with them; the extra price at that time will not pay him for his time and trouble. Now, the Orpington will lay more eggs than the Wyandotte during the winter months, when they fetch the best price, and will also weigh more in the fall, and bring more money, when most farmers sell their poultry and have time to market it. At the last Ontario show, in the utility pen class, the Orpingtons won first and second prize, while in the dressed fowl class they only failed to get the sweepstakes on account of being overdone, or a little too fat, which shows their qualities and popularity as a utility fowl. Having white legs, and being a white-skinned bird, they command a better price for the export trade, and are also bringing a better price on the home market. Now, I am sure these facts will

convince most readers that the Orpington, as a utility bird, is better than the Wyandotte, and more profitable for the farmer.
WM. A. RIFE.
Waterloo Co., Ont.

GARDEN AND ORCHARD.

Niagara Peninsula Fruit-growers in Session.

The vital importance to our fruit-growers of organization for business is becoming more evident every year. To meet the situation, the Ontario Fruit-growers' Association, under the direction of the Minister of Agriculture, is encouraging the formation of local fruit-growers' associations, or local unions, in every fruit center. During the winter meetings are held, which are addressed by fruit experts, and plans are discussed and matured for the summer's business.

Acting on this principle, the Niagara Peninsula Fruit-growers' Association concluded on March 18th a very interesting week of meetings at the following places, viz.: Stony Creek, local directors, Erland Lee and Joseph Tweedle; Grimsby, A. H. Pettit and Harry Griffith; Beamsville, Rev. W. J. Andrews; Jordan Station, C. M. Honsberger and S. H. Rittenhouse; Queenston, Isaac Usher, Wm. Armstrong, and Charles Lowry; St. Catharines, C. E. Fisher, W. H. Bunting, and W. C. McCalla. In addition to these several other gentlemen were sent as delegates to speak and aid in the discussions, as E. D. Smith, of Winona; L. Woolverton, of Grimsby; R. Thompson, F. A. Goring, F. G. Stewart, W. M. Hendershot, of St. Catharines.

The chief speakers, however, were Mr. A. W. Brown, a fruit expert from Wyoming, Delaware, U.S.; Prof. Lochhead, of the Ontario Agricultural College, Guelph, and Mr. W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa. The attendance was very large at each place, and large numbers followed the speakers from one meeting to another, taking advantage of the H. G. & B. electric road. Spray pumps were shown by the Spramotor Co., the Niagara Gas Sprayer Co., and by the inventor of the Little Giant pump, a one-horse machine, taking its power from the cart wheel.

INSECTS.

Prof. Lochhead spoke on insects and fungi. He pointed out that the great increase of our insect enemies of late years was a natural result of the large plantings of certain trees and plants, which afforded them food. The conditions were not natural; they were artificial, and hence the need of artifice to keep these insects in check. The fruit-grower needs to know the life history of the various insects in order to properly apply the remedies. Some insects, for example, sucked the juices of plants, such as the scale insects, and the Aphidae. These cannot be destroyed by poisoning the surface of the leaves with Paris green. They must be treated with lime, or sulphur, or whale-oil soap, or kerosene, or some such material as would either destroy by contact or stop up their breathing pores and strangle them. Other insects were leaf-eaters, such as the tent caterpillar, the cankerworm, the potato beetle, etc., etc., and these could be easily destroyed by poisoning the leaves with some solution of arsenic. Fungous diseases were to be destroyed by such materials as copper sulphate, lime and sulphur, etc., in various mixtures, of which the ordinary Bordeaux is so well known. Now, if we could succeed in making one solution that would do for all purposes, what a great saving of labor and of expense would result to the fruit-grower! Prof. Lochhead expressed the hope that the new liquid called "Limoid," with Bordeaux, would accomplish this. A deputation of fruit-growers from the Niagara District had waited upon the Hon. N. Monteith, Minister of Agriculture, asking that experiments be conducted along this line, and that the best spraying mixtures be made accessible to fruit-growers at reasonable prices, especially in those sections afflicted with the San Jose scale, for unless it is kept in check this insect will utterly destroy the orchards in Ontario. Prof. Lochhead said the Minister of Agriculture had consented to undertake this work, and had asked him to conduct the same. He therefore proposed to try experiments with (1) Limoid; (2) dust spraying; (3) soda, Bordeaux, and other mixtures. He would attempt to treat (1) black rot of the grape, (2) brown rot of plums, (3) leaf curl, (4) the cherry aphid, and other insects and diseases, and hoped for the active co-operation of all fruit-growers.

Prof. Lochhead warned growers of fruit against a common mistake in making Bordeaux by mixing together the milk of lime and the sulphate of copper before fully diluting each with the required amount of water. Such a course was certain to cause flakey bits, which would clog the nozzle of the pump. He also warned them against leaving the bandages for trapping the codling moth untouched during the season. They should be removed and the worms destroyed, otherwise the bandages were simply breeding places for increasing the mischief.

FUNGI.

In speaking of fungous diseases, Prof. Lochhead mentioned the black rot of the grape as one of the coming pests of the vineyard. If not already in the Niagara District, it would soon come (a voice, we have it), and if not treated it would destroy the vineyards. It had already destroyed the vineyards in the County of Essex, because the grape-growers there would not spray. To keep it in check, persistent spraying with Bordeaux was

necessary. It must be repeated several times during the season. Mr. Bunting, of St. Catharines, for example, had been badly troubled with black rot in his vineyard. He had succeeded in utterly destroying it, by persistent treatment with the Bordeaux. It should be applied (1) about the beginning of June, when the new shoots are 12 or 15 inches long, just before blossoming; (2) the first week in July; and these two are the most important treatments. Then repeat every ten days or two weeks, until August 1st, and rot will be prevented.

SPRAYING FRUIT TREES.

Mr. W. L. Brown, of Delaware, is a practical fruit-grower, an expert in spraying, and an eloquent speaker, and treated this rather uninviting subject in such a manner as to hold the closest attention of the audience for two hours at a time. We cannot do justice to his address on the details of spraying, and must be content to report a few prominent points. Spraying, he said, was a necessity to successful fruit-growing. It improved the sample of the fruit, it increased the yield, and it improved the healthfulness of the tree itself. The lime, sulphur and salt mixture he considered a sovereign remedy for San Jose scale, but it was one that would pay for the application whether there was scale or not, for it cleaned the tree of every enemy, whether fungus or insect, that was on the tree in its dormant state. To prepare this mixture he advised the following method: To two gallons of boiling water add slowly, with constant stirring, 20 lbs. of sulphur, thus making a sulphur paste. Put 40 lbs. best stone lime in barrel, add 12 gallons of boiling water, and quickly add the sulphur paste. Cover the barrel with burlap sacking for 25 minutes, to keep in the heat; fill up the barrel with warm water, and the last thing add 15 lbs. salt. Strain liquid into a spray tank, and spray on the trees at once, before the buds begin to open. This will absolutely control the scale. Mr. Brown emphasized the importance of procuring absolutely pure materials, and to do this he would buy them only from some responsible chemical company. To an inquiry as to the use of the salt, his opinion was that it made the liquid a little more adhesive.

The Limoid referred to by Prof. Lochhead, was a preparation by the Delaware Experiment Station, described in Bulletin 68. It was hydrated lime, and was used simply as a conveyor of kerosene, making what was called the K. L. mixture. One pound of Limoid would take up one quart of kerosene, or four pounds to a gallon. To make 100 gallons of the mixture, use 100 lbs. Limoid, and 25 gallons of kerosene, and 75 gallons of water, the Limoid not counting for bulk. This is for sucking insects. K.-L.-B. means K.-L., with Bordeaux added, and is a remedy for fungi. This is made by simply adding 75 gallons of Bordeaux instead of the 75 gallons of water; K.-L.-B.-P. meant kerosene, Limoid, Bordeaux, and poison, and was intended to destroy the leaf-eating insects also. This was made by simply adding Paris green or some other arsenical poison in the usual manner. This is a "Jack of all sprays."

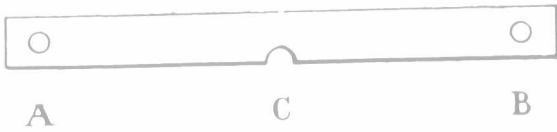
The application of the material is very faulty in many cases, and accounts for many reports of failure. The more carefully the material is prepared the better the effect. If Bordeaux is properly made two applications are in many instances as good as a dozen. The bitter rot is a great evil. It is coming into Ontario, and will spread through the orchards; it renders a large quantity of the product of the apple orchard worthless. It can, however, be controlled by the use of Bordeaux, if properly made, and applied about the 15th of August.

Co-operative spraying is the ideal thing. A local union can buy material wholesale, have the mixtures prepared uniformly in the best manner, and can own the best spraying machinery for quick and effective work.

To Keep Trees in Line.

To the Editor "Farmer's Advocate":

As the time of tree-planting is at hand, this simple diagram may prove a great help to those who have not seen it. The usual method is to stake out a plot, or even a long row, and see that the stakes are straight in



line. How provoking it is to find when you have pulled up your stake and dug the hole, that you can't get the tree just where the stake was; for an inch or two out of line makes an unsightly job. Take a board 8 ft. long, bore a hole in each end (A B in diagram), then cut a notch, C; now place the board with the notch C against the stake, then drive a pin or stake through the holes into the ground (the pins or stakes are a little less in diameter than the holes in board); you then lift the board off the stakes, and when the hole is dug ready to receive the tree, you place board on the pins or stakes, draw the tree into the notch, and leave it there until you have filled in around the roots, so the tree will not move either way. By this simple device you can commence anywhere on your plot, and if your stakes have been right, so will your trees be.

CHAS. GRASLEY.

Crossfield, Alta.

Pruning Fruit Bushes.

By H. S. Peart, B. S. A.

Among the things that should occupy the attention of the farmer and the fruit-grower at this time of the year, one of the first in importance is the pruning of fruit trees and bushes. In the farmer's garden, the bush fruits are very generally neglected, though the pruning which they require is simple, and can be done with comparatively little labor.

Raspberries.—The pruning of raspberries may be summed up briefly as follows: Remove the old canes after fruiting; thin out the weakest of the new canes, so that the row may not be too thick; head back the new canes to about three and one-half feet, so that good strong lateral shoots may be developed near the ground. Strong laterals may be headed back about one-half. In some localities where there is danger of the canes being injured during the winter, it may be best to leave the pruning until spring, but where there is no danger of injury from frost the work is as well done in the fall.

Blackberries and Thimbleberries.—These should be pruned much the same as raspberries, except that the new canes should be left somewhat longer, four to four and one-half feet being considered about right. It is generally advisable to prune blackberries in the early spring, as the canes are liable to freeze back during the winter.

Gooseberries.—Without care gooseberries become a tangled mass, which prevents the proper development and the easy harvesting of the crop. The fruit is borne on one, two and three year old wood; mostly, however, on the one and two year old wood. The aim should be to replace the three-year-old branches with good, healthy, new shoots very early each season. Six main branches, two of which may be replaced annually, is a good base from which to build the frame of the bush. Head back the new growth about one-third, and keep the bush just open enough to permit the easy harvesting of the fruit. If opened up too much there is danger of the fruit being injured by sun-burning.

Red and White Currants.—Currants are borne on the short spurs arising from the old wood, and near the base of the new shoots. Two-year-old canes produce the finest quality and the largest quantity of fruit, although some fine berries may be produced on the three-year-old branches. Train the bush to six main stems, two of which may be removed each season, and replaced by two vigorous young canes. All other new canes arising from the ground should be removed. Head back the two new shoots about one-half, and all other new branches one-third. Keep the head of the bush open enough to permit of free circulation of air, and to admit sufficient sunlight to ripen the fruit properly.

Black Currants.—The treatment of black currants does not materially differ from that of reds. The fruit is borne on one-year-old shoots, arising from older branches. As the bushes grow larger and stronger than the reds, it is well to leave about eight canes, renewing two each season. Head back the growth severely, to encourage the formation of many new spurs from the old wood for the production of fruit. Leave the head open enough to permit of free circulation of the air, and the entrance of sunlight to the center of the bush.

The Farm Garden.

One of the most important things about the farm and one of the most neglected is the garden.

If we are to go by the advice of physicians, we will find that to maintain health plenty of fresh vegetables are needful, therefore it is necessary that every farmer should have a good garden.

The best soil for a garden is sandy loam, but any well-drained soil, well enriched with farm-yard manure, and plowed in the fall, will do. Select, if convenient, a southern slope. In the spring it should be plowed again, rather shallow, and as early as the land is dry enough to work well. Then, in a day or two, if the weather be favorable, and the season far enough advanced, the planting may begin. Put in the lettuce and radishes first, follow with onions, beans, beets and so on. As to laying out the garden, do not sow in beds, but in drills, three feet apart, so as to give the horse cultivator room to work, as this will save more than half the labor, and there will be fewer weeds.

As to the variety of seeds to plant of the different vegetables, I would advise a beginner to leave the much-talked-of novelties alone, and stick to standard sorts, which can easily be found by perusing the pages of a seed catalogue. The best way for the farm gardener is to buy his seeds of some reliable seedsman, and not bother growing his own, as his time will be worth more than the money saved. I advise buying Dutch onion sets, instead of onions, as they will be to the busy farmer cheaper in the end.

I will give a short list of tested varieties of the leading vegetables for the benefit of the beginner. In beets, Crosby's Egyptian and Edmonds' Turnips; beans, pole, Lazy Wife and Wax Saddleback; cabbage, Jersey Wakefield and Danish Ballhead; sweet corn, Early Cory and Stowell's Evergreen; carrots, the Ox-heart or Guerande; cucumber, the White Spine; lettuce, Nonpareil; melons, Strawberry Muskmelon, and Cole's Early and Hungarian Honey Watermelons; radishes, Early Scarlet, turnip-rooted, and Rosy

Gem; tomatoes, Livingstone's Stone. This includes only the principal vegetables, and the others will have to be chosen to the best of your judgment. I would advise the farmer to purchase, if possible, his early cabbage and tomato plants, but to grow his own late ones. As to instructions as to when to sow and how to care for certain vegetables, you will have to go by the seedsman's instructions, and learn from experience. I know of no other way.

Now, resolve to have a garden in the spring, and don't let it be forgotten till all the spring's work is done, for if you do you will have a poor garden. So order your seed from some reliable seedsman at once, and plan for your garden.

Prince Edward Co., Ont. A. S. W.

Forest (Ont.) Fruit-growers and Forwarding Association.

Around Forest the orchard bids fair to become the most profitable department of the farm. Co-operation has solved the marketing problem for those who have entered into it in the right spirit, and the apple crop was sold last year, in spite of low prices due to big crops and hard times in the Old Country, at figures which netted the growers a very satisfactory return. The means of securing this boon was the Forest Fruit-growers' and Forwarding Association, organized last summer, largely through the energy and public spirit of President D. Johnston, a son of James Johnson, the leading orchardist in the district. In order to inquire into the methods and workings of this body, a member of the "Farmer's Advocate" staff visited Forest, interviewed the officers, and, in company with Secretary Lawrie, took a drive through the fruit-growing section. The farmers of the district are to be congratulated upon the excellent results, which show what can be achieved by intelligent co-operative local effort.

The object of the Association is to so pick, pack and place before the consumer, in commercial quantities, choice, uniformly-packed fruit that will secure a reputation for the brand and enable the Association to obtain for its patrons the maximum value of the crop. The co-operative idea was taken up last summer, as a result of the agitation by Mr. A. E. Sherrington, of Walkerton. Mr. Johnston and others interesting themselves, an organization meeting was held in May, 1904. Officers were elected, consisting of a President, D. Johnston; Vice-president, D. Simmonds, and Secretary-Treasurer, A. Lawrie, a hardware merchant who has been interesting himself in orcharding. A constitution was drafted, which, however, it is intended to revise in some important particulars. A charter will probably be secured.

So far only apples have been handled, but the members hope that a Provincial system of local and central cold storage warehouses will be established within a year or so, by which the various co-operative associations may be enabled to send plums and other fruits in good condition to the Western market.

ORGANIZATION.

The workings of the Association are very simple. President Johnston, a thoroughly practical man, was appointed inspector, an allowance of five cents per barrel being provided to cover his time and expenses. It was at first intended to have each grower to pack his own fruit, subject to inspection, but the uncertainty that each would comply with the requirements, the inexperience of some, and the diverse grading that would surely result, decided the directors to procure a central packing-house, in this case a curling rink. Hither the fruit, gently packed in barrels, was hauled to hay-racks, with a little hay or straw in the bottom, to prevent jarring or bruising of fruit. Here the fruit was emptied, carefully graded and re-packed, all under Mr. Johnston's supervision. In former years, buyers have come in and contracted for the apples, the farmer picking and piling on the ground till such time as the packing gang arrived. Some of the fruit would be spoiled, and all of it more or less injured in keeping quality. The buyer would take what he chose, leaving the rest on the farmers' hands. Such fruit as was taken would have deteriorated, and the price received under this system did not warrant the speculator, even were he so disposed, in paying a high price. The Forest Association holds that fruit should never touch the ground, a point in which they accord with the practice of the up-to-date Nova Scotia growers, who have been astonished on visiting Ontario, at the prevailing custom of piling on the grass.

Extra pains were taken with the pack, the XXX grade being kept fully up to legal requirements, and the XX being made equal to some of the XXX from other quarters. The Association was highly complimented on the packing, and towards the end of the season orders poured in from satisfied customers in such volume that ten thousand barrels could have easily been sold. Already an inquiry has come from a firm which wishes to handle the entire output next season.

METHOD OF SELLING.

Instead of waiting for buyers, or consigning to commission men, the secretary was appointed a salesman, he undertaking to dispose of the crop for twenty-five cents a barrel. Owing, however, to the low prices of the season, he accepted only fifteen cents, which he found sufficient to recoup him for time and expenses. The Northwest market was looked to entirely. During August he visited Winnipeg and points north and south, taking orders direct from dealers. Most of the fall varieties were thus disposed of, and some orders booked for winter stock. Returning, after a few weeks, he did the rest of the business by correspondence. The crop of the seventy co-operators, between 5,000 and 6,000 barrels, was all sold this way, except a batch of miscellaneous fall sorts sent to a commission firm. He considers that the only way to introduce a brand is to send a man out to canvass the trade. An economy could be effected by having one man to look after the interests of a number of associations.

Aggregate returns for all varieties were pooled among the shippers, a plan hardly fair to those who have mainly the better-selling varieties, and one which the secretary thought would probably not be repeated. Either the system adopted at Ilderton of keeping separate account for each variety, or some classification into groups, according to salability, will likely be substituted. Deducting all expenses, except picking and hauling to the packing-house, the net returns to growers, allowing 25c. each for barrels were \$1.07 for XXX., and 78 cents for XX. Growers found the stock for their own barrels, and had them made up by local coopers. Those who deferred purchasing until late in the season had to buy them at about forty-five cents apiece, and thus realized about 17 cents a barrel less. This year, most of the growers are buying the stock and having them made up for about 27 cents. While \$1.07 for No. 1's and 78c. for No. 2's may not seem high, it is about 50c. better than most of the XXX would have otherwise brought; while the 78c. on No. 2's may be considered almost clear gain, since buyers would not have taken them at all. Then, too, it is only fair to mention that the commercial varieties did much better, several car lots of No. 1 Kings and Spies going at \$2.25 a barrel, f. o. b., Forest. All except the few fall apples sent to the commission men were sold f. o. b. Reliable firms were dealt with, and not a dollar lost. The fruit was shipped G. T. R. to Sarnia, thence on the Northern Navigation Co.'s boats to Port Arthur or Fort William, then C. P. R. or C. N. R. to destination.

LESSONS LEARNED.

As many other co-operative associations will doubtless be started, modelled after the plan of this one, a few points should be emphasized as specially important. Co-operation often fails because of bad business management. The particular success of the Forest organization appears to be due to the following, among other reasons:

1. An enterprising, experienced president and manager, who had made practical success as a shipper, along the lines followed by the Association.
2. A good secretary and salesman, paid to go to the market and introduce the brand to reliable dealers.
3. Shipping of none but good fruit, honestly packed and rather above legal requirements.
4. Packing at a central point, under supervision of a competent paid inspector.
5. Selling at a straight price, f. o. b.

IMPORTANCE OF SPRAYING.

Last year's experience indicates strongly the importance of spraying. The secretary thought that sound fruit from sprayed orchards shipped better and was of better quality than sound fruit from unsprayed trees, while the proportion of XXX or No. 1's, was far greater in the former case. A clause will be inserted in the constitution making spraying compulsory upon all members.

Another idea that will be adopted is limiting the membership, experience having proved that the only difficulty or friction arose with the smaller growers, who had a large number of ill-assorted varieties, who did not spray and did not take an interest in the Association. Afterwards, as they perceive the benefits of co-operation, and become willing to care for their orchards, they will be admitted.

The disadvantage of a miscellaneous assortment was clearly indicated last season. Half a dozen winter sorts would be plenty for a locality. This would frequently enable the Association to fill orders for car lots of certain kinds, and obtain better prices.

An evaporating factory would be a profitable adjunct to a packing-house. Besides the direct return from the culls, it would remove the temptation to lower the XX grade.

PROSPECTS FOR APPLE-GROWING.

Mr. Lawrie speaks very encouragingly of the prospects for Ontario fruit in the Northwest. He evidently considers that the reason we have not succeeded better is that, with the kind of fruit sent and method of sending it, we did not deserve better than we got. The market is an excellent

one, if exploited properly and supplied with the right kind of fruit, in salable condition. In ordinary seasons, too, we have the British market to fall back upon, so that he considers prospects bright for the profitable extension of orcharding. He himself finds it profitable to rent orchards from farmers who have not been making anything out of them. If a merchant, obliged to rent the orchards, can make money, why not a farmer, who owns one, and has a much better chance to attend to it?

A GOOD APPLE COUNTRY.

The Forest district appears to be exceedingly well adapted to apple-growing. In a drive of six miles, a large number of thrifty orchards were seen, many showing effects of good care and intelligent spraying, though, in others, the rough, fungus-covered bark and unthrifty appearance bespoke lack of attention to first principles. Here, as elsewhere, many have yet to learn that care and expense pay handsomely in orcharding. In this connection, the experience of Mr. Johnson, Sr., should be convincing. On the Jonsson homestead is about twenty-five acres of orchard, mostly apple trees, planted for some considerable time. They used to get four or five hundred barrels of inferior fruit a year, until about ten years ago, when they became interested in improved methods and began to make a special study of the business, adopting spraying, etc. Then the returns increased, and the quality likewise. Now their output is from 1,500 to 1,800 barrels a year, principally of No. 1 fruit, besides hundreds of barrels of culls which they evaporate. For years they have been shipping their own fruit, receiving sometimes as high as \$2.50 per barrel. Last year it averaged about a dollar. They spray thoroughly four to six times a year, and have been practising cultivation, taking nothing off the land except the fruit. Though the soil is very rich, much of it being a silt deposit, they manure it occasionally with barnyard manure, and use in addition some five hundred bushels of ashes a year.

As fillers among the apple trees are plums, while there is also a nice young plum orchard planted by itself. The plums are not, however, so profitable as the apples. Among the varieties of apples which Mr. Johnson finds most profitable are Baldwin, Spy, Golden Russet, Greening, Ben Davis, Hubbardston and Nonsuch. In plums, they have Burbank, Lombard, Abundance, Imperial Gage, Bradshaw, Washington, Yellow Egg and Wicklow, the latter being spoken of as a large late plum, ripening irregularly. The plum specially recommended for this locality is Imperial Gage.

Another man who is making his orchard pay well is Vice-President D. Simmonds, who has fifteen acres of thrifty trees, not yet in full bearing. Though situated back from the lake, this orchard seems to do almost or quite as well as Mr. Johnson's, which borders the shore. His list of favorite varieties includes Baldwins, Spies, Kings and Ben Davis, though the orchard contains some other kinds as well. Asked about spot on Baldwins, he stated that he used to be troubled seriously, but had overcome it by spraying. Last year he sprayed seven times, the first of which was an application in the latter part of March of the lime-salt-sulphur mixture, which he made by boiling two hours and applying hot. This he strongly recommends every fruit-grower to use to clean the trees of insects and fungi. Though his orchard is not near full bearing, it netted him in 1903 \$365, and last season, despite the low prices, between \$250 and \$260.

Among other successful orchardists in the neighborhood are Alvin Loughheed, Wm. Burr, Richard Macken, Wm. Fraser and Henry Hudson. Mr. Hudson, by the way, shipped to the Old Country last year on his own account, and claims to have made satisfactory sales.

Sap Flow in Spring.

Sir,—Yours with regard to the flow of sap in trees received. I may say that it is very rapid in the spring before the leaves start, and is accelerated by root pressure, hence the excessive flow, such as we see in the maple or the bleeding of grapevines when pruned early in the spring. This flow continues to a less extent as long as growth lasts, but the root pressure is relieved by the amount given off by the leaves, hence there is not the same flow from the wounds made in summer as from pruning or tapping trees early in the spring. It has been found also that the flow of sap continues even to a slight extent in the winter time, when the ground in which the roots feed is not frozen. This flow is necessary to keep up the supply of moisture in the twigs and branches, which is lost to some extent, even in winter, through evaporation. One reason why trees do not succeed on the Prairies and in the Northwest is because of the evaporation from the twigs, due to the excessive drying winds, while the roots are frozen, and sufficient moisture cannot be taken up to prevent the trees becoming destroyed from what may be called winter drought.

Ontario Agricultural College. H. L. HUTT.

Preparation and Care of Hotbed.

By H. S. Peart, B.S.A., Ont. Agr. College.

To have vegetables earlier than you can under natural conditions, it is necessary to provide some artificial means for starting certain plants earlier than can be done in the open air. For this purpose, nothing is better than a good hotbed. It is simple to make, and the expense is small. Everyone who is interested in a good early garden should have a hotbed. A hotbed not only protects the plants from cold, but supplies heat from the bottom. By this means the soil is kept several degrees warmer than the air above. This condition is secured by making a compact pile of fermenting material, and covering it with the earth in which the plants are to be grown.

The best heating material which is easily available is fresh horse manure. If thrown into a loose pile it will heat violently and unevenly, and soon become cold. What is wanted in the hotbed is a steady and moderate, but lasting, heat. To secure this, the manure should be forked over, shaken apart, watered if very dry, and allowed to stand a few days, then forked over again to allow a second fermentation, the object being to get as uniform a degree of fermentation as possible. Place the manure in even layers about two feet longer and wider than the bed, and tramp down to a uniform solidity, until a depth of about two feet is secured. Late in the season much less is required. Place the frame on the manure, and bank up around the sides with manure. Put on the sash and allow the manure to ferment. Then put on the soil, which should be light, rich, and free from clods and stones, level carefully, covering the whole bed to a depth of five inches. The heat at first will be violent, sometimes rising as high as 120°, but it will soon cool down, and when the regular temperature of the soil reaches 90° the seed may be planted. It is important to have the rank heat pass off before the seed is sown.

In managing a hotbed, it must be borne in mind that the essentials for success are a steady, uniform degree of heat and moisture, keeping the soil at all times a few degrees warmer than the air. Simple as it may seem, it will require some care to obtain the desired results. It is astonishing how quickly the temperature of the bed will rise to 90 or 100 degrees on a sunny day, even if the outside temperature be below freezing; also, how quickly it will fall to that outside on a cloudy day if the sash is left open ever so little. A rush of cold air driven over the plants is far more injurious than the same temperature when the air is still. The important things in the care of hotbeds are: uniform heat, plenty of air, no cold drafts, and a proper amount of moisture. By following these simple directions in building and managing a hotbed, coupled with a little personal experience, anyone can grow, then, early plants with success.

Growing Early Tomatoes—Gooseberry Mildew.

I intend planting a lot of tomatoes for early shipping, the ground is poor: (1) How can I use fertilizer in the hill to advantage, and how much, so as not to injure the plants? What kind is best? After the plants are set, would a forkful of manure, barn-yard, around each plant be beneficial, or would covering the ground exclude sunlight and make the ground too cold? (2) Will spraying gooseberries with lime and sulphur prevent mildew, and how often must it be applied?

JAMES LUFFORD.

Lincoln and Niagara.
 Ans.—1. To secure a good crop of early tomatoes, one of the first things is to be sure of selecting a good early variety. We have found that the Earliana is one of the most productive extra early varieties, and that upon what is commonly called poor soil the best results with tomatoes may often be obtained. Land which is very rich tends to stimulate the excessive growth of vine without a full crop of fruit. To secure a crop on your ground I would recommend the application of about three hundred pounds of superphosphate and one hundred and fifty pounds of muriate of potash per acre. This should be applied two or three weeks previous to planting and well worked into the surface soil by means of the harrow. By the time of planting, the plant food in this should be in good condition for growth of plants. After planting, it would be well to make one or two light applications of nitrate of soda around the plants to give them an early start. This should be applied in small quantities, say, one hundred or one hundred and fifty pounds per acre, and sprinkled around the plants a few inches from the stem, as far out as the roots are likely to extend. It may be well to make a second application in two or three weeks, although this would tend to make more growth and vine, and probably retard the ripening of the fruit. I would not recommend applying barn-yard manure around the plants, as this tends to keep the ground cool, and although it would stimulate good growth of plants, it would tend to retard fruiting. As soon

as the plants begin to make good growth and branches are large enough, they should be spread out flat on the ground, so as to get all of the soil heat possible.

2. Lime-and-sulphur mixture has been used to some extent to prevent mildew, but it is not nearly as good a preventive as Bordeaux mixture. The best plan is to spray with Bordeaux mixture early in the season, before growth starts, and repeat three or four times, as may be necessary. On the whole, I think it is more satisfactory to grow the American varieties of gooseberries, such as Pearl, Downing, and Red Jacket, which are not subject to mildew, than attempt growing the large-fruited European kinds upon soils where they are very hard to keep free of mildew.

H. L. HUTT.
 Ont. Agr. College.

Fruit Shows as Advertisements.

The Nova Scotia Government has maintained an exhibit of fruit, principally commercial varieties of apples, at the several exhibitions held in the Crystal Palace, London, England, during this winter. The fruit was sent to Mr. J. Howard, Agent-General for the Province, in London, who has reserved space for it at the several exhibitions, and has seen that the fruit was put upon the tables in the most attractive manner. So far as one may judge from reports in the English papers, the result has been highly satisfactory, and an exceedingly good advertisement for Nova Scotia apples. The Fruit-grower, Fruiterer and Florist, commenting on the exhibit, says: "At first sight, these dishes of fruit seem to be a small lot for this notable fruit colony to display, but they are thoroughly representative of the fruit which this queen of apple-growing colonies sends to us in such large and growing quantities year by year. The fruit of Nova Scotia is known in every household in England for its fine quality and a general likeness to the best English samples."

The Daily Telegraph, of London, says: "So brilliant in color and so various in form are these Nova Scotia apples that the visitor is tempted to give them the place of honor as the best possible of their kind."

Now, I am giving these quotations about Nova Scotia fruit in order to make Ontario fruit-growers feel badly, and envy Nova Scotia growers, for I dare say people might have been found (and that, too, without looking for) who would have said just as nice things about Ontario fruit. But, what I want to call attention to is the value of such exhibits to the fruit interests. I believe that wherever we are sending our fruit to market a fruit exhibit would be a paying advertisement, whether it were in London, or Boston, or Winnipeg, or Dawson City. And it needn't be a large exhibit, either. I remember hearing a friend of mine tell of the interest excited in Boston by a dozen plates of Nova Scotia apples placed in a store window. Everybody wanted to know where they were grown, and everybody who found out had a better opinion of Nova Scotia's fruit-growing possibilities as a result.

Since the great bulk of our fruit goes to England, it is right and proper that the greatest efforts in the way of advertising exhibitions should be put forth there. But I am satisfied that a great deal more might be done in other markets, in our own Northwest, or even in local markets. If nothing more were done than to send a few plates of apples to the commission firm with which a fruit-grower were dealing, I believe the result would be excellent from the advertising standpoint. And the expense of such an exhibit would be practically nothing. Of course, all commission firms are not fitted up to carry a large exhibit, but there are few who would not be glad to give space for a collection of a dozen or so plates of apples as an advertisement of what they themselves are ready to supply to their customers.
 F. C. SEARS.
 Nova Scotia Agricultural College.

Uniform Apple Boxes.

The bill introduced by Hon. Mr. Fisher to provide for uniform boxes for packing apples for export has been endorsed in committee by the House at Ottawa. The box will be equal in capacity to one third of a barrel, or ten inches deep, eleven inches wide, and twenty inches long. Mr. Fisher said it was just what was wanted in England, and had been endorsed by the Fruit-growers' Associations. Mr. Fisher should also introduce legislation providing for a Canadian apple barrel of uniform size.

The "Ben Davis Flavor."

This story will be appreciated by apple-men and fruit-growers generally. In a smaller degree it appeals to householders who take an interest in the varieties of fruit they purchase. The Ben Davis is a very good-looking red apple; it keeps well, and the tree comes into bearing early, and is very prolific. It is, therefore, a favorite with growers, but as to its quality, opinions are, to say the least, not so unanimous in its favor. In a large Ottawa restaurant recently, a diner

picked up a fine-looking apple and asked a fellow-diner, a large and experienced apple shipper, if it was not a Ben Davis. Looking it over critically, and without the slightest sensation of humor in his tone, he replied, "It's verra like it; try it, and if it tastes like a turnip, then it's a Ben Davis."—[Correspondence, Toronto News.

Pruning Tomatoes.

An experiment with a certain method of pruning tomatoes was tried at the Ottawa Experimental Farm with gratifying results. When the plants in the hotbeds had six strong leaves developed, which was on May 23rd, the tops were nipped off and the plants given more room, being placed 5½ inches apart in the frame. The object of pinching off the top of the plant was to cause new shoots to develop at the axils of the leaves, in order to have six branches bearing early tomatoes instead of the one cluster usually found on the top of the plant. These were planted out on June 6th, alongside other plants unpruned. On June 22nd, half of the pruned plants were again pruned, all laterals being taken out and the six main branches only being left; the other plants were left to grow at will, and it was found that they produced the most ripe fruit, though not the largest early crop. This system of pruning is very promising. The further advanced the axillary shoots are when the plants are set out the larger the early crop is likely to be. In the experiment this year the plants were not started nearly early enough to get the best results. While the first fruit was ripe on the unpruned, Sparks' Earliana, on July 29th, there was very little ripe on that date. The experiment was suggested by Mr. J. S. Littooy, Everett, Washington Territory, who has been pruning tomatoes in this way for some time in Washington with gratifying results, where they have difficulty in ripening tomatoes.

Two varieties were under test, the Sparks' Earliana—one of the best, if not the best—an early variety, and the Matchless, a main crop sort. We would advise all market gardeners to give this system a trial this year.

Name of variety.	Date of first ripe fruit.	Ripe fruit, first three pickings.		Total yield of ripe fruit.
		Lbs.	Lbs. Ozs.	
Sparks' Earliana:				
Unpruned	July 29	9	84	
Pruned once.....	Aug. 13	6	127	10
Pruned twice.....	Aug. 12	18	132	12
Matchless:				
Unpruned	Aug. 4		29	
Pruned once.....	Aug. 29		73	8
Pruned twice.....	Aug. 29		62	

W. T. MACOUN, Horticulturist.

Honest Apple Packing.

Speaking of the common habit of "topping," or overfacing, and dishonest packing generally, and making comparisons favorable to Canada, the extract from the Markets Growers' Gazette, London, England, goes on to say:

"This (honest packing) is undoubtedly the keynote of the success obtained by the Canadian, Nova Scotian and French products. We salesmen have many classes of buyers to deal with, and if growers wish to reach the best buyers they must pack a best quality, for no buyers of first-class stuff will be deluded (at any rate, twice) into buying a top layer of the finest fruit with nothing but inferior stuff below, to him worthless. If, however, this secondary fruit had been carefully and fairly packed, and sent separately, another class of buyer, the largest one, would have purchased it. This would mean much quicker sales, and, for the whole consignment, a better price. It does not follow that because a buyer should pack as though he had a conscience, he should pack without using his intelligence. When a grower grades his produce, he will pack his best fruit more carefully, and nothing we could write would illustrate the best way so well as a visit to the markets where his produce is in competition."

APIARY

Spring Dwindling.

Spring is the time in which beekeepers sustain the greatest loss by "spring dwindling." Many of the bees leaving the hive in search of honey never return, as they are often caught in bad weather. Many small beekeepers sustain quite a loss by not knowing how to extract the wax from the comb they have in those lost hives. All smooth and nice cards can be used for new swarms, but drone and uneven cards should not be used. The best plan I have ever found to make sure of getting the wax all out of the comb, is to take a coarse linen sack, and break up the comb and put it in the sack, and take a boiler or large kettle and fill it partly with water, and when the water is hot enough to melt the wax, put the sack in the kettle and squeeze out the wax with a good strong stick. Skim off the wax from the top of the water into a dish, with a little hot water in the bottom, and the sediment in the wax will settle to the bottom, and you will have a clean cake of wax to sell.
 J. B. STONE.

NEWS OF THE DAY.

Canadian.

It has been officially announced that Lord Roberts will open the Toronto Exhibition.

London, Ont., is to have a new station erected by the G.T.R. Co., at a cost of \$250,000.

The Irish Guards Band will come to Canada for Toronto Exhibition this fall, and will subsequently make a tour of the Dominion.

Electric machinery for the operation of the locks on the Lachine Canal is to be installed, and the system will, it is expected, be in operation for the opening of navigation.

Lord Stanley, Postmaster-General of Great Britain, has declared that no reduction on the postage of British newspapers and magazines coming to Canada will be made. He says it would not pay.

Commander Law, who has held the office of Official Secretary to the Lieut.-Governor of Ontario since 1874, has resigned, and Capt. J. F. Macdonald, O.S.C., has been appointed in his stead.

Recent statistics show that the yield of fish in the lakes of Ontario for the past year amounted to 24,009,970 pounds, valued at \$1,793,229. The fry distributed by the Dominion Government during the year aggregated 77,350,000.

An extensive scheme of power development for the villages, towns and cities of Western Ontario has been decided upon by the Ontario Electric Development Co., which has let contracts for a new \$500,000 power-house at Niagara Falls. Routes for power cables will be located immediately.

The following famous paintings have been secured for the Toronto Exhibition this fall: "The Battle of Agincourt," by Sir John Gilbert; "Napoleon on the Road to Paris from Waterloo," by Stone; "Caught by the Tide," by Hook, and a masterpiece by Alma Tadema. By command of King Edward, Edwin Austin Abbey's coronation picture will also be exhibited.

British and Foreign.

Navigation on Lake Erie has been opened at Sandusky.

The town of Merka, on the East African coast, has been annihilated by a band of 9,000 Somalis.

During a hurricane which swept over the British Isles recently, the British ship Khyber was wrecked, and 23 of her crew drowned.

The American steamer Tacoma has been seized by the Japanese guardship for carrying contraband of war.

The British steamer Hongwan I. reports having passed 22 Japanese warships at the entrance to the Straits of Malacca.

The Italian War Minister has asked the Chamber of Deputies for \$40,000,000 to fortify the eastern and northern frontiers of Italy.

Thirty-two battalions of Turkish troops have been called out to suppress the insurrection in the Province of Yemen, Arabia.

The City of Pisagua, Chile, with a population of 20,000, is being deserted by the inhabitants because of an outbreak of the bubonic plague.

A serious strike has broken out at Brest, France. Frequent collisions between the troops and strikers have taken place, but no fatalities have been reported.

The British Government has put in a claim of \$100,000 to the Russian Government, as indemnity for the sinking of the Knight Commander in July last.

The famous Hospice of St. Gothard, Switz, erected by the St. Gothard monks for the accommodation of travellers crossing the Alps, has been destroyed by fire.

Twenty-seven derelicts are floating about the Atlantic between Santiago and Newfoundland, at great danger to shipping. Steps are being taken by the U. S. Government for their destruction.

A private telegram from Harbin, says that sixty surgeons and a hundred and fifty nurses have attended

nearly seventy thousand of the sick and wounded. Two surgeons have gone mad.

Anonymous letters, threatening the blowing up of public buildings, have been received at Moscow and St. Petersburg. The threats received at Moscow mention particularly the destruction of the depots of army stores intended for Manchuria. The Terrorists state, however, that they will wait for a month, to see the result of the Czar's rescript.

Upon the 17th of March, General Kuropatkin was summarily relieved of his command by the Czar, and the entire control of all the land forces in the East given to General Linevitch, the one officer who, in the first mad rush of retreat from Mukden, was enabled to bring his men off in order, so that they entered Tie Pass with bands playing. Since his appointment General Linevitch has telegraphed the Czar that his troops are "still concentrating," and that his rear-guard divisions had been "bombarded by the Japanese in the valleys of Tavanpun and Yanpu." From this it is inferred that the Russians are still retiring as rapidly as may be toward Harbin, with the Japanese in hot pursuit. According to Chinese authorities, Field-Marshal Oyama is likely to reach Harbin about April 10th. Should he be there victorious, he will assume control of the eastern portion of the Great Siberian Railway, and so have Vladivostok completely in his power.

THE FARM BULLETIN

The Cochrane ranch in Southern Alberta, which consists of 66,500 acres of land, and 12,000 head of first-class cattle, has been sold to an American capitalist for \$400,000. The purchaser intends to colonize the land.

Dr. Aml, of the Geological Survey of Canada, says there is every reason to believe that rich diamond-bearing fields will yet be found in the district lying between the great lakes and Hudson's Bay.

One thousand four hundred Ontario people left Toronto for the West on March 14th. Upon the same day a trainload of 300 British immigrants, bound for points in Ontario, arrived in the city.

The Canadian White Plymouth Rock Club (Mr. H. H. Wallace, London, Ont., Secretary) has donated a beautiful \$30 silver cup, to be competed for at the British Columbia Poultry Show, for best cock, hen, cockerel and pullet, said trophy to be won three times in succession before becoming the property of the exhibitor.

Under date of March 11th, Walter Simpson, P. E. I., writes: "Ice blockade still continues. Winter steamers have not made a crossing for 45 days. There is over a carload of mail, mostly papers and magazines, on the mainland, awaiting movement of steamers. All business is demoralized here, and cattle are beginning to die for want of fodder. There is between three and four thousand tons of hay at Pictou that can't get over."

Mr. Thos. Southworth, Provincial Director of Colonization in Ontario, states that the demand for immigrants for farm labor is far in advance of the supply. He says that inexperienced men from the Old Country are being speedily located on farms at salaries ranging from \$100 to \$120 a year, with board. Experienced men command from \$200 to \$250. Many farmers, he says, are building cottages for their farm help, and are finding that the plan works splendidly.

"If there is any surer sign of a tidy farmer than to see the fence corners all mowed out sleek and clean, I do not know what it is." "Get all the intelligence you can in farm hands, then treat them as you would like to be treated. Interest them in your work. To do so, outline your plans to them as occasion demands. Sympathize with them in their personal troubles. Pay promptly and in full as expected. Never disappoint them in this. Always praise work well done. Men interested in their work will do as much in ten hours as the average farm hand without interest does in fifteen."—[Successful Farming.

Want to Sell or to Buy?

The "Farmer's Advocate and Home Magazine" is the most popular and effective channel through which is given trustworthy, high-class information for the farmer and his family. It is also the medium through which people make known their wants by advertising, or what they have to dispose of. The "Want and For Sale," "Poultry and Eggs," and display advt. columns are widely used at this season. If you have really good pure-bred live stock, poultry, eggs for setting, seed grain or seed potatoes, a farm to rent or sell, or any other article to dispose of; if you are in need of employment as a farm manager, worker or herdsman; if you are a farmer requiring help, or a cheese or butter factoryman needing a dairyman, or a maker wanting employment, make the fact known by an advertisement in the "Farmer's Advocate," which circulates among the best farmers all over the northern half of this continent, more especially in every locality in Canada. Send at once for an advertising rate card, giving particulars as to rates and space.

Death Roll of Great Battles.

The following table, as given by the Globe, is most interesting at this time, when the world is so tensely watching the outcome of the struggle in the Far East:

Date and Battle.	Men Engaged.	Losses.	Per cent.
1800—Marengo.....	68,000	19,000	27
1805—Austerlitz.....	154,000	38,000	24
1806—Jena.....	110,000	31,000	24
1809—Wagram.....	230,000	57,000	25
1812—Moscow.....	245,000	74,000	29
1813—Leipsig.....	471,000	107,000	26
1813—Bautzen.....	260,000	52,000	20
1815—Waterloo.....	221,000	51,000	23
1859—Solferino.....	287,000	37,000	13
1859—Magenta.....	108,000	15,000	14
1862—Antietam.....	184,000	33,000	16
1863—Gettysburg.....	185,000	44,000	27
1866—Sadowa.....	291,000	33,000	12
1870—Gravelotte.....	396,000	62,000	17
1870—Sedan.....	314,000	47,000	18

The results of the battle of Mukden cannot yet be definitely given, but that the number will be enormous may be judged from the fact that between 800,000 and 850,000 men have been engaged. During the present war, not including this last battle, it is estimated that the total killed and wounded on both sides, by land and sea fighting, was 240,000, divided this way: Japanese, 115,000; Russians, 125,000. Of prisoners, there are at least 35,400 Russians in captivity, and probably 1,000 Japanese. In war material it is impossible to give an accurate statement of the loss, but it may be noted that the Russians have lost about 820 guns, as against a loss to the Japanese of some fifteen guns, the value of the former being over \$2,500,000.

As to the naval losses, the war has so far disposed of eight battleships, worth \$45,000,000; thirteen cruisers, worth about \$30,000,000, and a great quantity of other vessels, gunboats, mine-laying ships, coast defence ships, destroyers, torpedo boats, colliers, etc., the value of which will not be less than \$30,000,000; so that the total naval losses would reach \$165,000,000, of which about \$85,000,000 falls to Russia. The principal Russian naval losses are seven battleships, two armored cruisers, seven protected cruisers, seven gunboats, and two mine-laying ships. Those of Japan are one battleship, four protected cruisers, and two coast defence ships.

What has the war cost in money? A conservative estimate is that at the end of 1904 Japan had expended \$250,000,000, and Russia \$450,000,000. To these sums must be added the cost of the naval losses, \$105,000,000, making the total cost of the war \$805,000,000, of which about \$540,000,000 would fall on Russia. And the end is not yet.

A Cold-storage Romance.

She wrote her name upon an egg;
A simple country girl was she.
"Go, little egg, go forth," she said,
"And bring a sweetheart back to me."

Into the wide, wide world it went,
Upon its shell the message plain
The maiden waited, waited on,
With throbbing heart—but hope was vain.

The days, the weeks, the months flew past,
A year, another year rolled by,
Alas, no lover ventured near
To dry the teardrops in her eye.

Sad at her casement in the night,
She wondered where the egg could be,
"O, voiceless moon, dost thou behold,
Somewhere my true affinity?"

Somewhere, indeed, there was a man
Whom fate had made for her to own;
Somewhere, and waiting for the egg,
He led his loveless life alone.

The years sped on till gray and bent,
She looked down the road one day
And, trembling, saw an aged man,
Approaching slowly on the way.

His locks were white, his shoulders bowed,
He feebly leaned upon a cane,
She looked—and in her faded cheeks
The blush of roses glowed again.

'Twas he, her lover, come at last!
"Are you Miss Mary Jones, I pray?
I found your name upon an egg,
I bought in market yesterday."

Cheated of youthful life and love,
Kept parted till the journey's end,
The evening of their wasted day,
Together now they sadly spend.

—[N. Y. Produce.

The Sir Wm. Macdonald Institute Buildings.

The Agricultural College and other buildings at Ste. Annes, will form a handsome group, standing on a 50-acre farm, sloping toward the river. The foundation stone is already on the ground. The outside walls will be of buff brick, trimmed with stone. The buildings are to be roofed before next winter, and be ready to receive students by the autumn of 1906.

Thinks the Test Unfair.

To the Editor "Farmer's Advocate":

Sir,—There are two sides to every question, and I avail myself of this opportunity of replying, for the International Stock Food Co., to the article on "Stock Foods in Pork Production," by Mr. J. H. Grisdale, of the Experimental Farm, Ottawa, published in a recent issue. Our food should be fed, first, as a tonic or condiment, to be used in connection with stock suffering from bad health of some description. Mr. Grisdale agrees with us on this point, as is shown by the following extract from his article: "That place" (for stock food) "being as a tonic or condiment to be given to cattle or live stock suffering from indigestion or ill health of some description." Kindly carry the point made regarding indigestion in mind, for it assists me greatly in proving that the test on our food was unfair, although, no doubt, this was unintentional on the part of the Experimental Farm. Secondly, it should be used as an addition to the grain rations of all fattening stock, for the purpose of stimulating the digestive organs, and by enabling the animal fed to assimilate or take into the system more nourishment than if fed grain without it, promotes rapid fattening and growth. Our second claim is made to appear wrong by the results of the test, but when the point is admitted that stock food aids digestion, then our second claim must be admitted also in a very large majority of cases. It is a well-known scientific fact, that the average farm animal has impaired digestion to a greater or lesser extent. In our advertisements we claim that by increasing the digestibility of the feeding stuffs, the farmer is enabled to fatten his stock in less time than he could without it, and because more of the feeding stuff is taken into the system and goes towards building up the body, less can be fed. We know these facts hold true with the average farm animal, and to prove our belief we offer to ship 100 lbs. of stock food to any farmer in Canada, with the agreement that if it does not save him more than its cost, he need not pay us one cent. If we did not know that our claims would be upheld by a practical feeding test, we could not afford to make such an offer. We do not claim a miraculous preparation, but our per cent. of failures is very small. We try to meet the conditions that confront the average practical farmer, who generally knows his business, is honest, and will give our preparation a fair test for himself. We have nothing against the Experimental Farm, but why should they come out and create the impression that our food will not lower the cost of pork production, when they have made but one short test, while we have received thousands of testimonials from practical feeders who have used it for years, and who certainly know what they are talking about. By no combinations of feeds, with and without stock food, did the Experimental Station succeed in making any one lot gain over 1.31 lbs. per day, while we know of practical men who think little of a gain of 1.5, and who often succeed in putting 2 to 3 lbs. per day on their hogs. The results of the test are published in the form of a statistical table. It is often said that anything can be proved by the use of statistics. How can one short test, made under the following conditions, count, especially in the face of the testimonials we have received from farmers who face ordinary practical conditions, and not conditions found on an experimental farm? 1st.—The pigs on which the test was made differed widely in weight to start with. 2nd.—There were eight lots of pigs, four to the lot, and I think every reader of the "Farmer's Advocate" will agree with me, that it would be practically impossible to gather together 32 pigs from various points that would take on flesh with equal rapidity, any more than you could collect 32 men, and by feeding expect to fatten them in the same length of time. 3rd.—The same amount of grain was not fed to each animal, and this fact alone would make a big difference in results. These are some of the points we take exception to. There are others, but I think the ones I have mentioned are sufficient to win our case. E. B. SAVAGE.

U. S. Grain-growers Organize.

A gigantic struggle between the 10,000,000 farmers and grain-producers of the United States on one hand, and the National Grain-dealers' Association on the other, is disclosed in the numerous farmers' organizations which are being rapidly formed in all grain-producing States for the purpose of fighting the trust. Many of the elevators of the United States are railroad property, and a combination of the railroads and trust has placed the farmers of the country wholly at the mercy of the combine, which extorts from 4 to 10 cents on every bushel of grain raised by the producer. Many farmers receive 10 to 12 cents less than the actual market price of their grain per bushel. What the farmers propose doing is to organize locally, and ship direct.—[Live-stock World.]

Good Razor.

I received the razor O. K., and am well satisfied with it. Your respectfully, S. SANDERS. Huron Co.

Patrons of Husbandry.

The Order of Patrons of Husbandry, whose members are familiarly known as "Grangers," was originated in 1868 by Hon. O. H. Kelley, at Washington, D. C. He recognized a great truth, which is equally applicable to the farmers of to-day and to their condition, viz., that organization is the watchword of our present form of civilization. Liberty and prosperity are most perfectly secured to those classes of people whose prosperity and liberty are regulated and restrained by the most complete and equitable organization. Mr. Kelley associated with himself some half a dozen other philanthropic farmers and farmers' friends, and they began



Mr. F. W. Fisher, Burlington, Ont. Secretary Dominion Grange.

to expound these and kindred facts and principles to the farmers of the United States, and their good seed fell upon responsive soil—they soon found hearing ears and willing and understanding hearts. The growth of the order was phenomenal, and soon spread into Ontario and the other provinces of Canada. By the year 1874 the order was of sufficient strength and importance to warrant the establishment of the Dominion Grange of Canada as an independent body, yet in affiliation with the National Grange. Ten years later there were a thousand subordinate Granges in Canada, spread over Ontario, Nova Scotia, New Brunswick, Quebec, and

Manitoba; the membership was large and enthusiastic, but evil days came to the Grange, and both in the United States and Canada the retrogression was very rapid, but the movement in this direction was brought to a halt, and the National Grange has fully recovered its numbers and prestige, and to-day its members are numbered by the tens of thousands in single States. In Canada the Grange has not been so successful, yet the downward movement has been checked, and the membership for 1904 showed a substantial gain over the previous year. Ontario is still well leavened, with about one hundred subordinate Granges, composed of a loyal and zealous membership, and their hope and aim is to again in the near future bring the Grange into its legitimate position, as the leading and only stable farmers' organization yet instituted. It has outlived all its kindred and rival organizations, and is now waiting to receive its old and many thousands of new members into its fold. The Dominion Grange has been an important factor in shaping legislation in the Local House for Ontario, particularly along municipal lines, including the Drainage Act. Substantial benefits have accrued to the farming community as a result of their personally presented petitions year after year. For information as to the formation of new Granges, or the resuscitation of old Granges, application should be made to Jabel Robinson, Middlemarch, Ont.; Henry Grose, Lefroy, Ont.; the Secretary, W. F. W. Fisher, Burlington, Ont., or to the Master of any subordinate Grange. The Grange aims at the consolidation of all other organizations of the various sections of husbandry and kindred occupations. Fruit-growers; beekeepers; horse, cattle, sheep and swine breeders; poultrymen; dairymen, etc., all have associations, and many of them meet only annually; they are all isolated, and consider interests pertaining to their particular pursuits only. They lack the bond of fraternity and the principle of concentration, and form no unit to make their influence felt on broader lines. They further lack independence, for all are being maintained largely by public funds, and so are in a measure subservient to the governmental hand which feeds them. The agricultural interests of this country, allied in the Grange, could leave an important impress on its legislation, and this is one of the principal functions of the Grange to-day. This, with the social features of monthly or semi-monthly meetings, and the influence always at work in the order to enhance the comforts and attractions of farm homes, and to strengthen the attachment of farmers and farmers' sons to their pursuits, are sufficient reasons, though many more might be adduced, for the claims which the Grange makes upon the agricultural community for its continued existence, and the material increase of its membership. W. F. W. F.

How They View Soil Inoculation in Great Britain.

Soil inoculation is engaging some attention in the continent of America, but in this country it had practically been given up as a scientific wild-goose chase. The reason for this is partly that such experiments as have been undertaken have shown no encouraging results; and, secondly, because of the explanation given in what is called the "new soil science," which explains how the bacteriological utilization of the food of the soil is due entirely to the fact that the soil must in the first place be rich—bacteria will not exist in a barren soil. Some particulars are given in the Journal of the Board of Agriculture for February of the use of pure cultures in soil-inoculation abroad. Some years ago, it will be remembered that a fanciful idea possessed the souls of one or two that the farmer of the future could go about with his manure heap in his waistcoat pocket, and that soil inoculation might prove of infinite benefit to agriculture. It would appear that the most satisfactory results of the experiments abroad come from inoculation on soils which are almost or entirely devoid of nodule bacteria, such as newly broken-up soil, newly-cultivated moorland, or old soils which contain the bacteria, but not in a form suitable for the particular crop which it is proposed to cultivate. Those cultures are sent out in glass tubes, which should be preserved in a dark, moist room. The Board of Agriculture has obtained a supply of these soil germs, and they will be tested at various agricultural colleges and experimental farms in this country. The report of the United States Secretary of Agriculture indicates that where these organisms are used in accordance with the directions an increased yield, ranging from 15 to 35 per cent., is secured. However, that belongs to the future, and we await the result of tests in this country.—[F. & S.]



Spring Preparations.

The hog industry is keeping up well; hardly any hogs are dressed for market, being nearly all sold on foot. Good prices have been paid all along, which keeps the farmer's courage up. There is a marked improvement in the character of live stock also. What is necessary to be done to make 1905 a successful year may be summarized as follows: Firstly: Get implements ready for service early, in order to not lose time when spring opens up. Secondly: Use nothing but first-class seed, and cultivate land properly before sowing. Thirdly: Keep farm free from weeds; be sure to take the "Farmer's Advocate," and by so doing keep abreast of the times, and success will surely crown our efforts. I. E. N.

MARKETS.

Toronto.

LIVE STOCK.

Export Cattle—Prices are quoted unchanged and nominal. Choice are quoted at \$4.40 to \$5; good to medium, \$4.25 to \$4.40; good cows, \$3.25 to \$4.

Butchers' Cattle—Steady; good, to choice, \$4.25 to \$4.65; fair to good, \$3.50 to \$4; mixed, \$2.50 to \$3.75; common, \$2 to \$3, and cows, \$2.50 to \$4.

Stockers and Feeders—Feeders are quoted at \$2.50 to \$4.40, and stockers, \$1.30 to \$3.40.

Milch Cows—Unchanged at \$30 to \$60 each.

Calves—Quoted at 3c. to 6c. per lb. and \$2 to \$10 each.

Sheep and Lambs—The tone of the market continues firm. Quotations unchanged.

Hogs—Twenty-five cents advance since last quotations; \$6 per cwt. for selects, and \$5.75 for lights and fats.

FLOUR, FEED, ETC.

Wheat—Ontario—The market continues dull; red and white are quoted at \$1.04 to \$1.05; spring, 97c. to 98c., and goose, 90c., with little business. Manitoba—All-rail quotations are: No. 1 northern, \$1.09; No. 2, \$1.06; No. 3, \$1, with sales for delivery on the opening of navigation, 6c. lower.

Flour—Dull; 90 per cent. patent, \$4.40 to \$4.50. Manitoba, \$5.50 to \$5.70 for first patents, \$5.10 to \$5.40 for second patents, and \$5 and \$5.80 for bran exports.

Millfeed—\$15 to \$15.50 for bran in bulk, \$17 to \$17.50 for shorts, east and west; Manitoba, \$20 for shorts, and \$18 for bran exports.

Barley—46c. to 47c. for No. 2; 44c. to 45c. for No. 3, extra, and 43c. for No. 3, malted outside, Toronto freights.

Rye—Prices nominal at 71c. to 72c. for No. 2, f. o. b., outside.

Corn—Firm; Canadian, 46c. to 47c. for yellow, and 45c. to 46c. for mixed, f. o. b., Chatham freights; American, No. 3, yellow, 56c. to 56c.; mixed, 55c. to 56c., on track, Toronto.

Oats—No. 2 are offered at 41c., low freights, without buyers, and 40c. is bid.

Rolled Oats—\$4.35 for cars of bags, and \$4.60 for barrels, on track, here; 25c. more for broken lots here, and 40c. outside.

Peas—Firm; 67c. to 68c. for No. 2, west and east.

Buckwheat—57c., east and west.

Seeds—The demand for high-grade seeds continues active. Prices are firm in tone. Red clover is quoted at \$7 to \$7.50 a bushel; alsike, \$5 to \$6.50, and timothy, \$1 to \$1.50, all f. o. b., Toronto.

COUNTRY PRODUCE.

Butter—Supplies of creamery are heavier, and the market has an easier tone.

Creamery, prints25c. to 26c. do, solids23c. to 24c.

Dairy, tubs, medium17c. to 18c. do, inferior15c. to 16c.

Dairy, lb. prints, good to choice, 22c. to 23c. do, large rolls20c. to 22c. do, medium18c. to 19c.

Cheese—Steady, and half a cent higher, at 11c. for large, and 11c. for twins, in job lots here.

Eggs—The market has a decidedly easy tone. Retailers are not in the market. New-laid are now offering at 17c., but not more than enough to fill immediate demands are being bought at this figure. Supplies are fairly large, and are accumulating.

Potatoes—Continue easy in tone. Arrivals are fairly large. Prices have an easy feeling at present quotations. Ontario, 65c. to 70c., on track, and 75c. to 80c., out of store, but Eastern 5c. cheaper, at 70c. to 75c., on track, and 85c. to 90c., out of store.

Beans—Are firm in tone. Quotations are unchanged. Hand-picked, \$1.75 to \$1.80; prime, \$1.65 to \$1.70, and under-grades, \$1.25 to \$1.50.

Hops—Steady, at 32c. for Canada crop. Maple Syrup—Supply not large. Choice is selling at \$1 per imperial gallon.

Baled Hay—Car lots here are offering freely, and the market is easy in tone, although actual prices are unchanged, at \$8 per ton for No. 1 timothy, and \$7 for mixed and clover, car lots, on track here.

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

Montreal.

Eggs—Market has weakened. Jobbing price about 23c., and dealers selling in a retail way, at 25c. Purchases made at country points at 19c. to 21c., f.o.b.; cold storage and lined eggs practically out of the market.

Butter—A few hundred packages Australasian received direct from London, via Liverpool, have eased the market somewhat; they arrived before the lot of Australasian referred to last week as being detained in New York. The butter was full grass and considered superior to Canadian, in both quality and style of package. All boxes bore the Australian Government stamp, showing they had been inspected. The 56-pound boxes were heavier than Canadian, as was also the parchment. It was offered at same price as new milk creamery, 29c. Since then nice, fresh, winter-made creamery was sold at 26c., and new milk dairy rolls at 22c. to 23c.

Cheese—Little on the market. At the pitch of 11c. for finest white, buyers desisted, and the past week there has been little inquiry.

Potatoes—Easier; local country deliveries large. Carlots have been offered at 60c. to 65c. per bag, on track.

Turnips and Onions—Little done, except in bag lots: 75-pound bags about 60c. each. Onions firm, and practically unchanged. A carload of Red Globes from Ontario was marketed to-day at 24c. per lb.

Hay—Decline under continued heavy receipts; likely to continue until breaking up of country roads. No. 1 timothy, \$8.75 to \$9.75 per ton; No. 2, \$8 to \$8.50, and shipping hay, clover and clover mixed, \$7 to \$7.50.

Flour—Fair local demand. Export light, some for occasional shipments to South Africa. Prices are steady; \$5.50 for strong bakers' and \$5.80 for patents, Manitoba, per bbl., in bags. Ontarios show no change, and are quoted at \$5.70 to \$5.80 for patents; \$5.35 to \$5.45 for blis. of straight rollers, and \$2.50 to \$2.55 for bags.

Grain—Heavy receipts of oats lately; demand light, and stocks increased. Hard to see why prices have not declined further. Dealers asking 45c. for No. 3 ex-store, and 45c. to 46c. for No. 2. Feed barley quoted at 49c., on track. Heavy drop in wheat past few weeks.

Buffalo.

Hogs—Active; heavy, \$5.60 to \$5.65, a few \$5.70; mixed, \$5.60 to \$5.65; Yorkers, \$5.35 to \$5.65; pigs, \$5.25 to \$5.30, a few \$5.40; roughs, \$4.75 to \$5.00; stags, \$3.25 to \$3.75. Sheep and Lambs—Sheep, active; lambs opened active, closed slow; native lambs, \$6.50 to \$8.40; Westerns, \$8 to \$8.25; yearlings, \$7 to \$7.35; wethers, \$6.25 to \$6.50; ewes, \$5.75 to \$6.15; sheep, mixed, \$3.50 to \$6.

Chicago.

Cattle—Steady; good to prime steers, \$7.10 to \$6.25; poor to medium, \$3.75 to \$4.85; stockers and feeders, \$2.50 to \$4.60; cows, \$2.85 to \$4.50; heifers, \$3 to \$5; canners, \$1.50 to \$2.30; bulls, \$2.25 to \$4; calves, \$3 to \$6.50. Hogs—Mixed and butchers', \$5 to \$5.25; choice, heavy, \$5.15 to \$5.35; rough, heavy, \$5 to \$5.10; light, \$4.95 to \$5.20; bulk of sales, \$5.15 to \$5.25. Sheep—Market steady; good to choice wethers, \$4.60 to \$6.50; fair to choice, mixed, \$4.75 to \$5.40; native lambs, \$5.50 to \$7.50.

British Cattle Market.

London.—Live cattle are quoted at 11c. to 12c. per pound; refrigerator beef, 8c. to 8c. per pound; sheep, 12c. to 13c. per pound.



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

EVERY DESCRIPTION OF BANKING BUSINESS TRANSACTED.

Special attention given to accounts of Cheese Factories, Drovers and Grain Dealers, and all out-of-town accounts. Farmers' Notes discounted, Farmers' Sales Notes collected and advances made against their security. Municipal and School Section accounts received on favorable terms. SAVINGS BANK DEPARTMENT Deposits of Twenty cents and upwards received, and interest at 3 per cent. per annum, compounded four times a year, without presentation of passbook. No delay in the withdrawal of any portion or the whole of the deposit.

G. de C. O'GRADY, General Manager.

Contents for this Issue.

ILLUSTRATIONS. Diplomatist 7043 419 End View Sheep Rack 420 English Leicester Ewe 421 Border Leicester Ram 421 W. W. Hubbard 422 Plan of Barn Basement for Medium-sized Farm 423 Second Floor of Barn Plan 423 Carrie 425 Sarcastic Lad 23971 426 Mr. F. W. Fisher, Burlington, Ont. 431 Spring Preparations 431 EDITORIAL. Status and Work of the Dominion Fruit Division 417 Why Not Exempt Woodland from Taxation? 417 Every Man a Stallion Judge 417 Stallion Pedigrees and Customs Regulations 417 Reader for 25 Years 418 Knife Worth a Dollar 418 Principles and Methods of Effective Co-operation: II 418 Amount of Salt for Cows 418 HORSES. The London Hackney Show 419 Stick to Type in Horse-breeding 419 DOCKING. Docking the Lambs 420 First-class Then, and Better Now 420 Another Sheep Rack 420 Re Dehorning 420 Salt as a Preventive of Blackleg 420 Warbles in Cattle 420 A Hogpen (illustrated) 420 Lessons for the Meat Producer from the Shows of 1904 421 The English Leicester 421 Simple Treatment for Abortion 421 Grub in Head 421 FARM. Nova Scotia Seeding 422 Seeding Methods 422 New Ontario Problems 422 Treatment of Mucky Land 422 Protect the Producer 422 Microscope and Reading glass 422 Seeding in P. E. I. 423 King's Co., N. B., Cultivation Methods 423 Barn-Plan Enquiries 423 Canadian Forestry Association 423 Sorry He Left the Farm 423 It Holds Good 423 Sugar-beet Pulp Feeding 2nd-prize Essay 424 It is Practical 424 Markets and Veterinary Answers of Great Value 424 Difference Between Emmer and Spelt (illustrated) 424 Mixture for Pasture Crops 424 Harrowing Spring Grain 424 Spring Seeding in N. B. 425 A Yearbook of Agriculture 425 DAIRY. Progress of the Jersey Cow 425 Dairy School Literary Notices 425 One Judge or More? 425 Care of Salt in Barns 425 Alfalfa and Oxygen 425 Best of All 425 The Dairy Stable in Spring 425 POULTRY. Laying Competition 426 Let the Chickens Help You 426 S.-C. W. Leghorns Best for Farmers 426 List of Utility Breeds 426 Buff Orpingtons as Utility Fowl 426 GARDEN AND ORCHARD. Niagara Peninsula Fruit-growers in Session 427 To Keep Trees in Line (illustrated) 427 Pruning Fruit Bushes 427 The Farm Garden 427 Forest (Ont.) Fruit-growers and Forwarding Association 428 Sap Flow in Spring 428 Preparation and Care of Hotbed 429 Growing Early Tomatoes—Gooseberry Mildew 429 Fruit Shows as Advertisements 429 Uniform Apple Boxes 429 The "Ben Davis Flavor" 429 Pruning Tomatoes 429 Honest Apple Packing 429 APIARY. Spring Dwindling 429 THE FARM BULLETIN. Want to Sell or to Buy?; Death Roll of Great Battles; A Cold-storage Romance; The Sir Wm. Macdonald Institute Buildings 430 Thinks the Test Unfair; U. S. Grain-growers Organize; Good Razor; Patrons of Husbandry; How They View Soil Inoculation in Great Britain 431 Prizewinners in Poultry; Eastern Ontario Live-stock and Poultry Show, Ottawa, 1905 448 MARKETS 432 HOME MAGAZINE 433 to 439 QUESTIONS AND ANSWERS. Miscellaneous. Live-stock insurance; wet or dry batteries for telegraph key and sounder; market quotations; lump jaw cured; ownership of calf; origin of Hackneys 440 Liability to statute labor; seeding down orchard; married woman's property; devisee selling farm; employee leaving; nonfulfillment of contract; notice to outgoing tenant; cement concrete for roofing; artesian wells 441 Treatment for smut in oats; British Empire population; shrinkage in milk-half udder; King system of ventilation; how often to administer; unthrifty pig-fencing; summer feed for calves; spaying heifer—water from creek 442 Rot-proof potatoes—pruning, grafting and manuring; basement for horses and cattle; dampness on walls—dead air space 443 Green corn and straw in mow; alfalfa roots and drains; craving appetite; horse registry queries 445 Veterinary book for farmer—draining plow 450 Farm bookkeeping; salt for onions—Vegetable gardening; Too little variety in food; cement vs. frame hogpen, size, cost 451 Breeding young heifer; title papers—horse deal—perjury; leaking roof—underdraining level clay 452 Milk fever in sow; raked cement; false flax 453 Check row corn planter; corn for ensilage—cure for potato scab 454 Unsatisfactory heifer; preserving meat in summer 455 Veterinary. What does not lie down; obscure lame legs 450

In answering the advertisement on this page, kindly mention the FARMER'S ADVOCATE



Life, Literature and Education.

"Poetry has been to me its own exceeding great reward; it has given me the habit of wishing to discover the good and beautiful in all that meets and surrounds me."—S. T. Coleridge.

"O brave poets! Keep back nothing, nor mix falsehood with the whole; look up God-ward; speak the truth in worthy song from earnest soul; hold in high poetic duty truest truth, the fairest beauty."—Mrs. Browning.

"The Browning of Canada."

The late Theodore H. Rand, M.A., D. C. L., was born in 1835, at Cornwallis, N. S. He should be, however, one of the most cosmopolitan of our poets, since he has spent periods of his life in Nova Scotia, New Brunswick and Ontario, respectively. He has always identified himself closely with educational work, and in early life held, for some years, the position of Superintendent of Education in the Maritime Provinces. In 1883 he accepted the Chair of Education and History in Acadia College, but resigned in 1885 to become instructor in Apologetics and Didactics in McMaster Hall, Toronto, now McMaster University. Since that time his life has been closely connected with this University, to whose Chair of Education and English History he was called in 1895.

While in Nova Scotia Mr. Rand founded a "Journal of Education." He has also contributed much to other periodicals, and his poems have been collected into two volumes, "At Minas Basin and Other Poems," and "Song Waves," which are regarded as a decided acquisition to Canadian literature. He has written little in the lighter vein. He looks upon life seriously, yet with a calmness born of that optimism which has given him the name "The Browning of Canada." He loves nature in every form. The flowers, the birds, the trees; the dragon-fly skimming over the pool, the loon laughing on the lonely lake; clouds, sea-breezes; the ocean waves creeping up the shore; storms; rocks; all things, peaceful or sublime, appeal to him. To each he writes his sonnet and from each he learns a lesson, the lesson that God Himself is revealed in all His works.

The following poem, chosen from "At Minas Basin and Other Poems," is especially appropriate at this season, in which, upon any warm spring day, one may expect to find the brave little hepatica peeping forth from the first bare "ingle-nook" of the woodland:

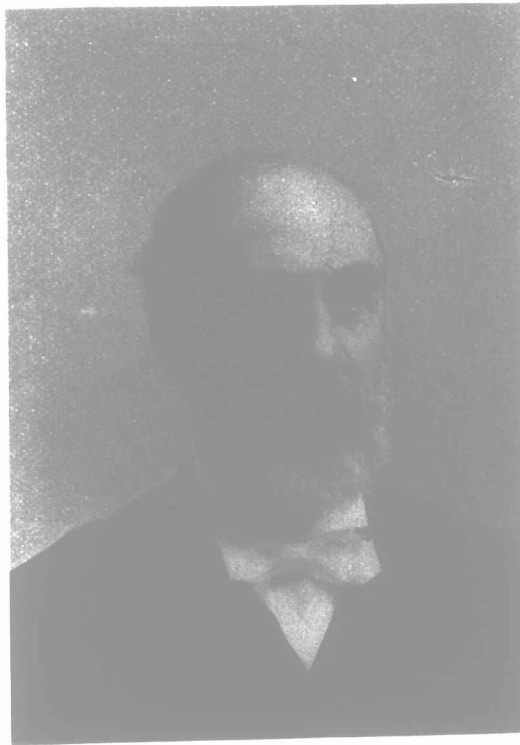
The Hepatica.

Hail, first of the spring,
Pearly, sky-tinted thing
Touched with pencil of Him
Who rollest the year!
Lo, thy aureole rim—
No painter may limn—
Vision thou hast, and no fear!

Fair child of the light,
What fixes thy sight?
Wide-open thy roll
From the seal of the clod,
And thy heaven-writ scroll
Glow, beautiful soul,
With the shining of God!

Thou look'st into heaven
As surely as Stephen,
So steadfast thy will is!
And from earth's ingle-nook
Seest Christ of the Lilies
And daffadowillies,
And catchest His look.

And a portion is mine,
Rapt gazer divine,
From thy countenance given—
Angel bliss in thy face!
I've looked into heaven
As surely as Stephen
From out of my place!



The late Theodore Harding Rand, D. C. L.

Sir Wm. Macdonald's Educational Scheme.

It has been announced that the public education scheme which is to be carried out in the Province of Quebec under the direction of Professor Robertson and Sir William Macdonald, will entail an expenditure of \$2,000,000, all of which will be supplied by Sir William. In addition to the agricultural college and experimental and demonstration farm at St. Anne de Bellevue, on the Ottawa River near Montreal, there will be on the same site a Teachers' College, for the purpose of training men and women to be thoroughly qualified as teachers in advanced rural schools. The Normal school, at present in the city, will be transferred to St. Anne. It has

been planned that the teachers' college should be specially available and useful to teachers already in the service of the Protestant schools of the Province of Quebec, and others who may seek training to become specially qualified teachers in the Province. It is believed that the movement will mark a new era in the educational progress of Quebec.

Treasury of Canadian Verse.

If it be true that "poetry is the child of nature, which, regulated and made beautiful by art, preserveth the most harmonious of all compositions," and, again, that, "By harmony our souls are swayed," then to be ignorant of the poetry of one's native land, is to be ignorant of its most pleasing, if not the most potent form of literature. In "Treasury of Canadian Verse," (Wm. Briggs, Toronto), compiled by Theodore H. Rand, is to be found, perhaps, the best collection of Canadian poetry issued in convenient form. As stated by Mr. Rand in his preface, the verse in this volume "does not treat solely nor chiefly of Canadian themes." It covers a broad range of history, philosophy and sentiment. At the same time one is glad to see among the poems a generous sprinkling of Canadian subjects and references, and to know that the home charm that clings about the hepatica and blood-root, the gleam of firefly and dip of paddle, the querulous lamentations of the whip-poor-will in the wood, and the flute-tones of the little white-throat reiterating his "I love dear Canada, Canada, Canada," is everywhere present in this book of Canadian verse. Charles G. D. Roberts, Bliss Carman, Duncan Campbell Scott, George Frederick Scott, Goldwin Smith, Gilbert Parker, A. Lampman, W. H. Drummond, Nicholas Flood Davin, Charles Mair, Grant Allen and Pauline Johnson are a few of the best-known writers from whose works selections have been made. One hundred and thirty-five writers in all are, however, represented. The significance of this will appear when it is said that there is not one stanza of doggerel in the volume. We commend it to our readers.

Cause of the Russo-Japanese War.

So many students going up for examination next July are asking for the cause of the present war between Russia and Japan, that I venture to write a little history to help them. The "Farmer's Advocate" is read by the cream of this Western country.

To understand the cause of the present war between Russia and Japan, we must go back to the war between China and Japan in 1894. The apparent cause of this latter war was the rival claims of these

powers to assert an influence in Corea, but the real cause was a struggle between the irreconcilable conservatism of the Chinese and the progressive ideals of Japan. The struggle ended in a complete victory for Japan. All the world turned in admiration of the Japanese army and navy, the organization and equipment being a complete revelation to all the nations.

Japan had no sooner commenced to sing her songs of victory than the European powers appeared on the scene, and she had to give up her hard-won laurels. Russia demanded an ice-free port in the Pacific, and the right to carry her Siberian railway across Chinese territory to Vladivostok. This railway gave Russia a grasp on Manchuria. Russia also re-fortified Port Arthur. In December she sent her fleet to winter there, and in March she demanded a lease of the Port and a right to build a line of railway connecting Port Arthur with her Siberian trunk line in Northern Manchuria. Germany was given a ninety-nine years' lease of the Bay of Klawow. France demanded a rectification of frontier in the Mekong Valley, and Great Britain obtained a lease of Wei-hai-wei. Thus to Japan the struggle had been practically a barren war.

Then came the Boxer Rebellion. The Chinese Government in Manchuria, overconfident of success, wantonly declared war against Russia. This was followed by a "reign of terror" for the Chinese, one of the incidents in which was the massacre by the Cossacks of five thousand Chinese, men, women and children, who were ruthlessly flung into the Amur. Russia took full advantage of this upheaval, and virtually annexed the whole of Manchuria.

Russia continued advancing and extending her influence. Japan became restive under such conditions, and submitted to Russia the following proposals: First, that Russia and Japan should mutually respect the independence and territorial integrity of China and Corea. Secondly, Russia would respect the special interests of Japan in Corea. Thirdly, Japan would bind herself not to infringe on the commercial rights and amenities which, by virtue of existing treaties, Russia possesses in Corea. Russia would enter into the same engagement with regard to commercial rights and amenities of Japan in China.

In reply to these proposals, the Russian Government, in its note of December 11th, "refused to discuss the Manchurian question with Japan." That question, according to Russia, could only be discussed between herself and China. With regard to Corea, Russia consented to recognize the special interests of Japan, but in one part of the country only. A neutral zone must be created, beginning at the Manchurian and Korean frontier, and extending to the east as far as Wang-ping-yang, and to the west as far as Ping-yang. These conclusions being unsatisfactory to Japan, she broke off diplomatic relations with Russia on February 6th, and war began on the 7th of February, 1904.

G. C. M. BOOTHE,
Image Hill School. Teacher.

There will be no Chances This Year for

The idler.
The leaner.
The coward.
The wobbler.
The ignorant.
The weakling.
The smatterer.
The indifferent.
The unprepared.
The educated fool.
The impractical theorist.
Those who watch the clock.
The slipshod and careless.
The young man who lacks backbone.
The person who is afraid of obstacles.
The man who has no iron in his blood.
The person who tries to save on foundations.
The boy who slips rotten hours into his schooling.
The man who is always running to catch up with his business.
The man who can do a little of everything and not much of anything.
The man who wants to succeed, but who is not willing to pay the price.
The one who tries to pick only the flowers out of his occupation, avoiding the thorns.—[Success.

Arcady at Home.

I may be writing to someone who has a home remote from her own kith and kin, a home apart from neighbors, with long intervals of silence and brooding. There are such homes. Fortunate it is if in them is a cradle in the living-room, if little feet patter up and down the stair, and if there are friendly cats and dogs that make for themselves a place beside the fire. A mother can never feel herself an exile if her children are around her. One such lonely woman wrote me not long ago, "I stand at the door and listen to the sound of the hoof-beats until they die in the distance, and know that I have seen the last of my husband for the whole day. He waves his hand at the end of the lane, and is gone. He likes this big new country, with its great spaces, and he lives in the future when we are all going to be rich. But I don't care for a big, empty, level landscape. I pine for the hills and the sea. I pine for the dear people in the little home village, for the gossip and the familiar faces, and the church fairs, and the little things that happen. Nothing happens here.

You may imagine that it is a pleasure to correspond with a sister who is far away and discouraged, who, in some of her low moods can hardly enjoy her children's company. In her case, as in that of many another, loneliness and homesickness are aggravated by continual drudgery and the pressure of routine. Husbands have over wives the decided advantage that they go out for a daily change of scene, and return at night to an environment that greets them with cosy comfort and a smiling welcome. Office, shop, ranch, farm, field, whatever place of toil a man has, he goes to it daily, and in due course he returns. Out on the ocean the sailor may toss in a wild gale, but he does not lose heart, for somewhere on the shore, where the lamp is burning and the kettle sings, there is a home, there is a wife, there are babies.

Heart's desire is always satisfied when one goes home, but not always does heart's desire incline to stay there. This is why, when you stand on the wharf and wave good-bye to the friends who are to cross the ocean, you need not waste a sigh on them. They are going away for a good time, and will return to their Arcady by-and-bye. Your sympathy must be for the ones who stay at home, abide by the stuff, and accept the monotony of the daily grind.

—Margaret Sangster, in Woman's Home Companion.



Good Temper.

"When it drizzles and drizzles,
If we cheerfully smile,
We can make the weather,
By working together,
As fair as we choose in a little while.
For who will notice that clouds are drear
If pleasant faces are always near,
And who will remember that skies are grey
If he carries a happy heart all day."

It has been said that good temper is nine-tenths of Christianity; whether that be true or not, it certainly goes a very long way in making the comfort of home life. If we don't display an attractive kind of Christianity, we must be driving people farther from Christ, instead of drawing them nearer to Him. But the true test of anyone's temper is not his behavior in society—when he has his company manners on—but his behavior in the privacy of home life. Some people, especially semi-invalids, seem to think that they have a right to be as irritable as they choose when they have no visitors to be shocked with their bad manners. It is all very well to talk of "nerves," and we healthy people are bound to make large allowance for those whose nervous system is all on edge; but, on the other hand, to give way to "nerves" is the very way to become slaves to them. Others should be treated with some consideration, they may have "nerves" too, although they don't make a fuss about them. Have we any right to get cross and impatient a dozen times a day, or to go about looking as though we hadn't a friend in the world, just because our liver is not in first-class condition? Have we any right to be rude

A peace, in importunity, possessed—
A reconciliation generously sought—
A purpose put aside—a banished thought—
A word of self-explaining unexpressed:
Trifles they seem, these petty soul-restraints:
Yet he who proves them such must needs possess
A constancy and courage grand and bold.
They are the trifles that have made the saints:
Give me to practice them in humbleness,
And nobler power than mine doth no man hold."

Will you study those lines carefully? There is a great deal in them. Think of the glad sound of the voice which might be cultivated by a constant habit of repressing tones of pride or petulance. As the little invalid said when a visitor addressed her in what was intended for sympathy with her ailing condition: "Peak like you do when you laugh!" We don't want our friends to laugh all the time, that would be very tiring, but doleful, mournful sympathy is worth less than nothing. Then take the next line: Why, home would be a new Garden of Eden if all the members of a household were seeking the comfort and pleasure of the other members instead of their own. But I am not going to enlarge on each line—you can easily do that for yourselves.

One of the old philosophers said that everything had two handles—by the one it could easily be carried, but by the other not at all. "Thus, if your brother has injured you, do not take hold of this event on the side of the injury, for that handle will not support it—it is, as we say, intolerable—but take hold of it by the other handle and say, 'Well, he is my brother after all.'" But it is a great



"The Auld Stane Hoose."

The William Henderson homestead, Oxford Co., Ont.

and contemptuous in manner—or even in thought—towards those whose little tricks of manner are not quite to our taste." They may have real solid qualities of soul and heart, which, in the sight of God yes, in the sight of man too—are worth far more than our French polish which is only put on for state occasions. They may be living lives of noble self-sacrifice, beside which our refined, self-seeking existence is very mean and petty. The very fact that they put up cheerfully with our whims and fancies shows that they are above us, although probably they are quite unconscious of the fact.

"A tone of pride of petulance repressed—
A selfish inclination firmly fought—
A shadow of annoyance set at nought—
A murmur of disquietude suppressed—

mistake to think that a weak, easy amiability is a good thing to encourage. It was that kind of thing that brought misery and destruction on the house of Eli. He was, as we say, "good-natured," and allowed his sons to do as they pleased, even a virtue changed into a vice. David made the same mistake in regard to his son Absalom, spoiling him by weak indulgence—and he reaped a bitter harvest when his son drove him from home and kingdom. So, in cultivating good temper, we had better be careful that it is strong temper, and not a weak, milk-and-water article.

It may be hard to be cheerful and healthy in the city, where the air is impure, and only the works of man can be seen, but we who live in the country have far less excuse for irritability or peevishness. The very air should fill us with joy and gladness, and the beauty of

God's handiwork is all around us to fill our hearts with wondering praise. God floods the world with sunshine, and no one has any right to pull down the blinds of his soul and then complain that his life is sad and dreary. It is always possible to find something to fret about, if one is determined to be miserable, but this made-to-order misery is most ungrateful to God, who has given us so many rich blessings for which we hardly trouble to thank Him, although we are generally ready enough to find fault if they are withdrawn. It is very doubtful if those who make a point of finding something to be miserable about would be very happy even if their lives were made perfectly smooth and easy. Their grievance then might be that there was really nothing to grumble about.

"Oh, don't the days seem lank and long,
When all goes right and nothing wrong?
And isn't your life extremely flat
When you've nothing whatever to
grumble at?"

But we are not likely to have that grievance, so let us make up our minds to put up cheerfully with the grievances we have, or fancy we have. It isn't only the present comfort of the other people that may be endangered by our fits of bad temper or irritability. We may do them a deep and lasting injury, if we don't take care. Worldly people are watching professed Christians, watching eagerly to see if they really do possess a pearl of great price, which it would be to their advantage to gain even if they had to sell everything they owned to win it. If they see a joyful spirit, rising triumphant over the little vexations of life, shining always because always reflecting the light of the Sun of Righteousness, they are sure to be attracted by it. It is not by books of evidences of Christianity that most souls are won for Christ. There are no sermons so powerful as the quiet lives of consistent Christians. Let no one say he has no chance to preach for Christ, or to be a missionary. We are all preaching—something—every day of our lives, whether we want to preach or not. But, perhaps, our sermons are doing more harm than good. Our everyday life has far more effect than we realize at the moment, far more effect also than the great acts of heroism that we should like to practice, if we only had the chance. Even if we had the chance, we might not shine in them—quite the reverse, perhaps—and, if we did, they would not help on the cause of Christ as much as the accumulated influence of everyday cheerfulness.

"Am I wrong to be always so happy?
This world is full of grief;
Yet there is laughter of sunshine,
To see the crisp green in the leaf,
Daylight is ringing with song birds,
And brooklets are crooning by night,
And why should I make a shadow
where God makes all so bright?
Earth may be wicked and weary,
yet cannot I help being glad.
There is sunshine without and within
me, and how should I mope or be
sad?
God would not flood me with blessings,
meaning me only to pine
Amid all the bounties and beauties He
pours upon me and mine:
Therefore will I be grateful, and there-
fore will I rejoice:
My heart is singing within me! Sing
on, O heart and voice!"

HOPE.

"I Envy Not."

I envy not in any moods
The captive void of noble rage,
The linnets born within the cage,
That never knew the summer woods.

I envy not the beast that takes
His license in the field of time,
Unfetter'd by the sense of crime,
To whom a conscience never wakes.

Nor, what may count itself as blest,
The heart that never plighted troth,
But stagnates in the weeds of sloth,
Nor any want-begotten rest.

I hold it true, whate'er befall;
I feel it, when I sorrow most;
'Tis better to have loved and lost
Than never to have loved at all.

—Alfred Tennyson.

Oh! The Shamrock.

By Thomas Moore.

Through Erin's Isle, to sport awhile,
As Love and Valor wander'd
With Wit, the sprite, whose quiver
bright
A thousand arrows squander'd.
Where'er they pass, a triple grass
Shoots up, with dew-drops streaming,
As softly green as emeralds seen
Through purest crystal gleaming,
Oh the Shamrock, the green, immortal
Shamrock!
Chosen leaf, of Bard and Chief,
Old Erin's native Shamrock!

Says Valor, "See, they spring for me,
Those leafy gens of morning!"
Says Love, "No, no, for me they
grow,
My fragrant path adorning."
But Wit perceives the triple leaves,
And cries, "Oh! do not sever
A type that blends three godlike
friends,
Love, Valor, Wit, forever!"
Oh the Shamrock, the green, immortal
Shamrock!
Chosen leaf, of Bard and Chief,
Old Erin's native Shamrock!

So firmly fond may last the bond
That weve that morn together,
And ne'er may fall one drop of gall
On Wit's celestial feather.
May Love, as twine His flowers
divine,
Of thorny falsehood weed 'em;
May Valor ne'er his standard rear
Against the cause of Freedom!
Oh the Shamrock, the green, immortal
Shamrock!
Chosen leaf, of Bard and Chief,
Old Erin's native Shamrock!

Race Suicide in New Hampshire.

The New Hampshire House of Representatives is the largest legislative body in the United States. Being chosen from a comparatively small population, it may be considered, therefore, as fairly representative of the average citizenship of an average New England Commonwealth. The entire Legislature of the State, including the Governor's Council, comprises 418 men. A brief list of biographical sketches of these men published in the Manchester Union furnishes material for interesting observations relative to the enduring qualities of the old New England stock. A vast majority of these men are native born, more than two-thirds of them being descended from a long line of New England ancestors. Of these 418 men, the State has a right to expect at least 836 children, being two apiece. The actual number, however, is 684, or a little more than a child and a half for each man. Of the whole number 355 are married, 275 are fathers, 80 are childless, and 63 are unmarried or widowed. Of the 275 fathers, 94 have one child each, 73 have two, 47 have three, 25 have four, 18 have five, six have six, five have seven, two have eight, three have nine, and two have ten each. Of the fathers of six children or more each, nearly two-thirds are of foreign birth, chiefly French-Canadian. If these foreign-born representatives, therefore, were eliminated from the list, the showing would be still less favorable.

Resting.

Hard earned are the few coins of the Shrimper. The harvest of the sea, to those who go to reap it, in good comradeship, one boat's crew lending a hand to that of another in hauling in the nets with their shining, leaping victims, has much to compensate for its many hardships, but the solitary woman of the rocks, who in the grey dawn of early morn, or at any hour when the low tide calls her to her toil, has hard work and a weary time of it, if she is to fill her basket with the shrimps, prawns, periwinkles, etc., she hopes to sell presently. No wonder she rests a while before she goes from door to door with the shrill cry of "prawns, fresh prawns; shrimps, who'll buy my fine, fresh shrimps."

H. A. B.



Turned Out to Die.

From the Youth's Companion.

Turned out to die! The faithful horse
You mounted twenty years ago,
A laughing boy, and galloped fast
Amid the whirling flakes of snow.
A better friend man never had
Than Dobbin with the gentle eye;
But now a stranger's in his stall,
For you have turned him out to die!

How oft he drew the heavy wain
To market o'er the winding road;
And homeward, cheerily again
Pulled back of winter's stores a load.
And oft bedecked with ribbons gay,
To fairs beneath the autumn sky,
He drew a crowd of girls and boys—
To be at last turned out to die!

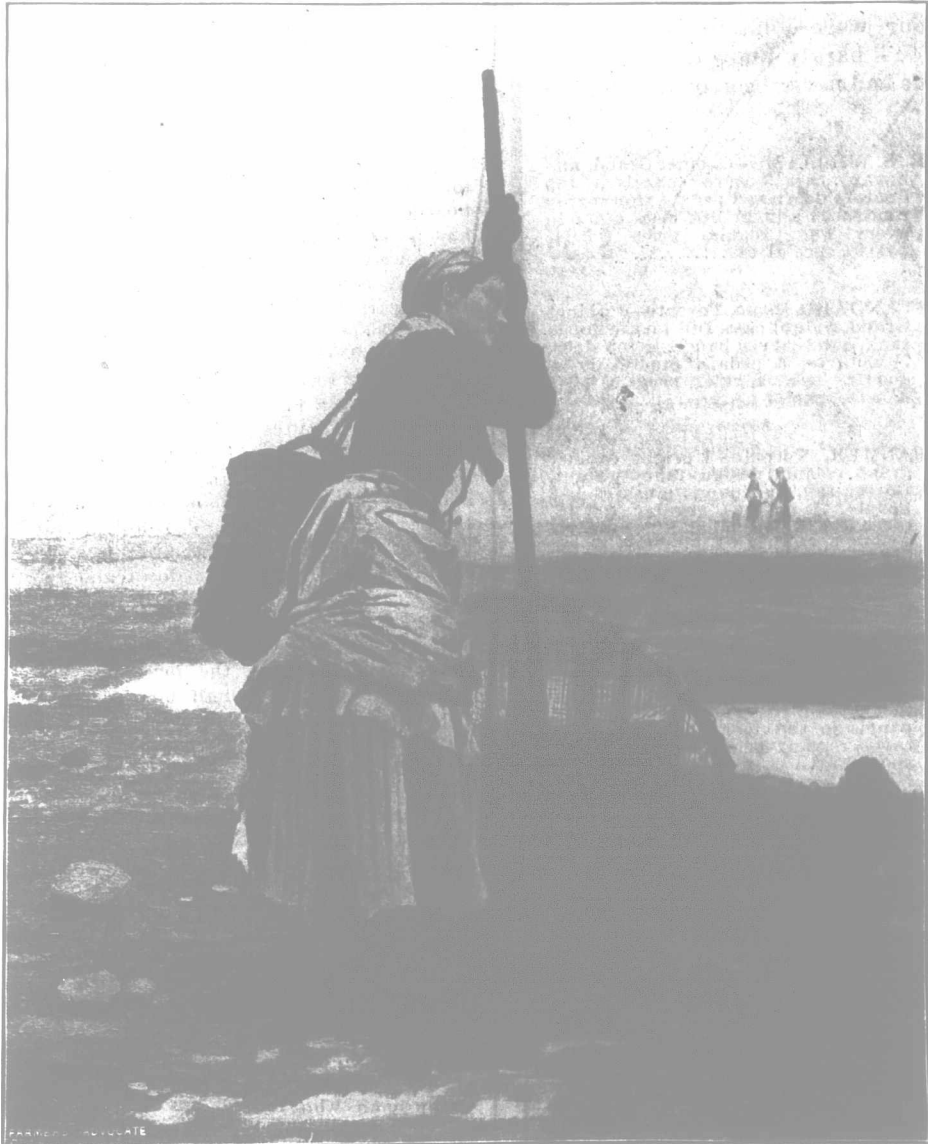
Have you forgot the stormy night
When little Ned was taken ill?
The way to help was long and dark,
Skirting the spectre-haunted hill.
Old Dobbin failed you not that time,
Though lightning cut the inky sky,
He bore you to the doctor's door—
And now he's been turned out to die!

The old companion of the plow;
Give Dobbin true the warmest stall—
The one he graced in years gone by—
He's been a noble friend to you;
Beneath the old roof let him die!

Memories of Billy.

Our old Broncho Billy was a horse well known in the Township of London. He was a native of Texas, and came into our hands nineteen years ago, when he was three years old. A pretty little pony he was, with his cream coat and his wicked little eyes, full of youth and broncho fire. Bronchos were not so plentiful here twenty years ago, and he became quite popular with visitors, for he loped so gracefully it was as easy to ride on his back as on a rocking chair—if Billy wanted you, and thereby hangs a tale.

One afternoon, shortly after we bought him, our house was inundated by eight visiting young ladies. To entertain them, Billy was saddled and led up as a lamb to the slaughter. Very lamblike he looked and acted. One after another the



Resting.

(From painting by Ridgway Knight.)

And when your father, breathing low,
Committed all things to your care,
He said, "be kind to Dobbin gray.
The good old horse has done his share."
He never shirked before the plow,
But drew it steadily, and why?
He loved you all, and never thought
That he would be turned out to die!

O, shame! call back the trusted friend,
And shelter from the biting blast
The good old horse that served you well
In happy times forever past.
What if, when age has bleached your hair,
Your children without tear or sigh,
Shall say, "You've served us long
enough,
Father, we turn you out to die!"

One touch of nature it is said,
Doth make the whole world kin, and now
Call homeward from the meadows bare

visitors enthusiastically called him "darling," "a dear," and "an old love." But all the time his eyes gained in impatient fire, and when my young aunt, who was left till the last, because she had some little experience in riding, mounted him, they both started off eager to show off. Billy quickly topped toward the orchard and chose the trees, with the lowest branches as his playground. However, when he did not unseat his rider, he was not daunted. He came out into the open, and took a playful gambol around in a very small circle. Then, off he started again, and whether he bucked or not, is still a question, but in a few minutes he stood laughing at my aunt on the ground.

Sometimes the ladies of the family hitched him to a buggy; then he did look ashamed of himself, and small wonder, for he looked just like a rat, and

like a rat he tried to turn around in his shafts and face his persecutors.

He was remarkably fleet footed. When mounted on Billy, one could manage most any herd. He knew exactly what to do himself and needed no guiding hand. It used to be fun too to pass all the other horses on the road.

Old Billy used to play tag with the boys. A half dozen of us would surround him, and try to prevent him from getting through the circle. If a stranger were among the number, Billy would run fiercely at him with ears back and eyes flashing. Of course, the stranger ran, and so a gap was made in the circle, and Billy escaped. At other times he would pretend to run through a place; all the boys would crowd to that side, and Billy would escape through the other part of the broken circle.

One day my brother met a neighbor on the road, who was having great difficulty in driving a cow. The cow refused to pass a bridge. Billy came to the rescue. He stood in front of the stubborn cow, and just wheeled on his hind legs to the left or right as needed, making retreat impossible. The defeated cow finally stood before the bridge, but refused to go farther. The two dogs nipped and barked, but there she stood. But Billy to the rescue again! He just gave her tail a good, sharp unexpected nip, and the cow fairly raced over the bridge.

He was a source of constant fun to my sister and brother, who learned to ride him like veritable cowboys. The neighbors yet tell of the time they saw them loping along the road at full speed, both on his back and both laughing wildly. But Billy knew his riders' ages, which were nine and seven respectively, and did not play any pranks.

Such fun they had herding the cattle, and practising all kinds of fancy riding on his back, with old dog, "Captain," at their heels. Great friends they were, and when Billy was away, Captain met him at the gate with gambols of joy and gleefully they'd gallop home together.

But the end came at last. One day, last August, he looked sick. He had inflammation. One of the boys took a plaster out to ease him. He applied it to the wrong side. Billy turned around and actually pointed with his nose to the other side, looking wistfully up into his master's face.

But Billy remembered his youth and its freedom. He did want to get out of the stable. Finally they opened the door and he came out, walked to the watering trough and looked mournfully at his old friends taking refreshment. Then he walked past the house slowly, and looked lingeringly at it and at us standing beside the door. When he walked past, there were not many dry eyes in the group at the door. We all loved old Billy, and we knew it was the last time the poor old fellow would ever walk past the house.

Over across the road to our other barn he went, and looked at all his old haunts, then back he came, and walked as far as he could in the other direction, looking, looking, looking. Finally, when his legs refused to carry him farther, down he dropped.

Thus died our old friend, Broncho Billy, and it will be long before his memory dies out of our hearts.

LILLIAN CARMICHAEL (aged 13).
London Township.

Your story is both interesting and pathetic, Lillian, and will be sure to interest all the Cornerites, especially the boys, who would all have enjoyed a ride on "Broncho Billy."
C. D.

Humorous.

A girl who had been very clever at college came home the other day and said to her mother: "Mother, I've graduated, but now I wish to take up psychology, philology, bibb—" "Just wait a minute," said the mother. "I have arranged for you a thorough course in roastology, boilology, stitichology, darnology, patchology, and general domesticology. Now, put on your apron and pluck that chicken."

Irate Employer—See here, you young Rip Van Winkle, I only hired you yesterday, and I believe, on my soul, you've been asleep here ever since! Sleepy Joe—That's what I thought you wished, sir. Here's your advertisement: "Wanted—An office boy; not over sixteen; must sleep on the premises."

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INTEREST ALLOWED AT 3½ PER CENT.

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THE KNOWING ONES
WILL ACT QUICKLY.

We have placed on the floors of our warerooms fifteen slightly used pianos for immediate selling. You'll hardly know the difference between these pianos and new ones that had never been out of the factory. Here's a description of each.

Square Pianos.

STODART, New York—Rosewood case, 6½ octaves, octagon legs, good practice piano, at..... **\$61**

FOX & CO., Kingston—Square piano, carved legs and lyre, light rosewood case, with top mouldings, overstrung scale, 7½ octaves, in good condition. Regular price \$375.00, special at..... **\$119**

DOMINION square piano, carved legs and lyre, overstrung scale, rosewood case, 7½ octaves, a good-toned piano. Regular price \$100.00, special at..... **\$125**

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KENNEY-KENNEY, New York—Square piano, carved legs and lyre, overstrung scale, 7½ octaves, practically like new. Regular price \$125.00, special at..... **\$132**

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STANDARD Piano, Toronto—Cabinet Grand, walnut case, full length music rack, hand carved panels in top door, 7½ octaves, 3 pedals, practically as good as new, regular price \$330.00, special at..... **\$239**

PALMER, Toronto—Upright cabinet grand, colonial design fancy walnut, Boston fall, continuous music rack, 3 pedals, 7½ octaves, regular price \$385.00, special at..... **\$245**

GERHARD HEINTZMAN—Cabinet grand, walnut case, in good condition, 7½ octaves, regular price \$450.00, special at..... **\$277**

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The Farm is All Right.

Dame Durden,—Counting the "Ingle Nook Chats" among my weekly pleasures, I read each letter, and, therefore, noticed your letter of the 23rd, asking for discussion on the life of the farmer's wife. I hoped to see a reply on March 2nd. I consider the life of the farmer's wife to be the happiest one, and with as much scope for development as the town, when through our post offices we can bring the best part of our cities within our reach. I consider the Illinois woman, who fed horses, hogs and calves, and worked in fields, was doing the work of the hired man, and not that of the farmer's wife. I cannot understand a woman, with such high ideals and keen perceptions, and who thinks she might make her mark with the pen, being so badly "taken in" as she confesses to be. The man who, in married life, is so miserly and selfish, must have shown symptoms of these before, as these traits did not develop in a day. I think if more thought were given to the life after marriage than to the trousseau and the wedding, there would be happier homes, both on the farm and in town. The Illinois woman's humiliating herself by a letter of complaint, shows a weakness which makes us wonder if there are not two sides to her story.

I have been married to a farmer for fourteen years, and counting hired help, boarders, and two children, have never had a family of less than six; for years there were ten. I did all my plain sewing, my own housework, made quilts, sewed carpet rags, milked cows, churned, picked apples and dried them, and yet always found time for reading and fancy-work as my recreation. I always have a book or paper handy, and if we have to wait a few minutes for the men to come to dinner, the time is not wasted. I think the country woman needs her papers and magazines more than our town sisters, who have so many other attractions. I scarcely ever sit down idle, unless very tired, then I lie down and rest body, nerves and mind, and in ten minutes get up greatly refreshed. During hot weather I get all my heavy work and cooking done in the forenoon, and manage to procure a half hour's nap in the afternoon, which I find pays, as I always find life looks brighter after this rest.

Of course, the girl who marries the farmer must expect a little more work than her town sister, owing to work caused by having hired men, milking, etc., but I do not think it pays for a woman to do the man's work. I have noticed the woman in our locality who does this is the one who helps clothe the doctor's family. I think it more economical to pay the hired man.

How many of our town women would enjoy our drives into town on Saturday, or our drive to a neighbor's? I think the woman who is unhappy and discontented in the country will not be happy anywhere. Life is a good deal what we make it. It disgusts me to hear people talk of the drudgery of the farmer's wife, in this enlightened age, with our cheese factories so close, creameries for those who do not wish to churn in winter, post offices so convenient, magazines at a moderate price, and public libraries for those near towns. The progressive farmer has labor saving machines, so why not his wife? By tact and good management we may procure many luxuries, as well as necessities.

ONTARIO FARMER'S WIFE.

She Has Tried Both.

Dear Dame Durden, I have been enjoying your cosy corner so long, that I feel as though I cannot keep still any longer. I do not think people could speak, one discouraging word about our location, if they would only read the news, help letters in the "Farmer's Advocate," written by farmers' wives. I have noticed

both country and city life, and I would not on any account exchange the former for the latter; but I was a "born and bred" country girl. We cannot all live in the country, nor yet all live in the city.

There is one thing I think farmers' wives need, and that is a greater feeling of independence. Let them put away altogether the thought of trying to imitate their city sisters in any particular, and just think what is the easiest, most sensible way for them to conduct their own affairs.

Of course, we have more work to do than those who live in town. We must churn; we must see to our meat supply for the summer; we must pick our own fruit; if we want a chicken for dinner, we must kill, dress and cook it, instead of having it brought into the house all ready for the kettle. Now, in view of all this, we cannot very well live as our city sisters; then let us have independence enough not to try.

Now, I do not want to offend any, but I must say that some of the city women are so "stuck on" themselves (please excuse slang) that it will be hard to impress them with a sense of our equal standing with them. But I think if we just keep following out the dictates of our country common sense, we will in time take our rightful place in the world.

Of course, it is the worry that kills. Any woman knows she can accomplish twice as much in a given time if she is working in a hopeful, happy, interested spirit, as she can when she is in a fluster and stew all the time. There is a great temptation with the farmer's wife to attempt too much. She has not the outside attractions right at hand to occupy her mind, and if she has not cultivated the habit of reading, she will attempt to fill up the time with other extra work. Perhaps she will raise chickens. She will do a lot of running after them, etc., and in due time she will "reap if she faints not," but what is the price? "Poor Mrs. A., the farmer's wife, works so hard." It will not pay her; she may be able to buy something new and pretty for her house, or to wear, but a bright, happy, restful face is a far brighter ornament to a home than any amount of elegant furniture or fine clothes. She does not need to work so hard; all she needs is to have independence enough to live more simply, and hence more happily. Now I am talking to farmers' wives, who enjoy comfortable happy homes of their own. Of course there are poor farmers, just as there are poor working men's wives in the city, who must work hard in order to live. But the independent farmer, with a home of peace and plenty, has only to stop and take time, in order to live an almost ideal life; not the swift, hurry-scurry, from one pleasure to another, of the city man and woman, but the elevating, restful, enjoyable pleasure, of planting and sowing, and watching the result of one's labor coming to maturity. Then we always have the green fields, the woods and the streams with us to enjoy. We have the long winter evenings, why not fill these with instructive reading and social intercourse? We have everything to enjoy, if we can but learn to realize it.

INDEPENDENCE.

Re Alexandra's Letter.

Dear Dame Durden,—I have often thought that I would like to "say my piece." Regarding Alexandra's letter on buttermaking, I do not believe in so much working of butter, because I think it spoils the grain. In fact, I never work my butter, never touch it with hand or ladle until it is ready for packing or making in prints, and I never have it streaked or spotted. If milk and butter are properly attended to, the butter will not need sugar to improve the flavor. One thing that I cannot understand is how so much bad butter is on

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the market in Manitoba. I find no trouble in making and marketing a first-class article, and always get a good price for it.

If some of our good sisters can give me some hints on the care and training of girls they will have my grateful thanks. I find such a diversity of dispositions in my family, and what does for one will not do for another. One is so willing to help; then, again, another wants to do nothing but read all the time, and if asked to do a little chore will grumble and fret until one wishes one never need ask her to help. I have tried to shame her and to punish her, by taking her books and putting them all away for a time, and in different other ways, but have failed so far to do her any good.

A. M. J.

Have you tried giving her a stated time each day in which she may read undisturbed? Love of reading, you know, is a rather good "fault."

A Farm Lover.

Dear Dame Durden,—Your interesting letter has met with deep sympathy from one of nature's lovers, a young country lassie. I feel quite indignant towards those who in the least degree speak slightly of farm life, yet I pity them, and console myself with the assurance that they know practically nothing of the superior advantages we country girls have. I wonder why "work" stands as a barrier or a dark object in any one's views of our life. I can truly say that work is a pleasure to me, or I at least make it one.

We who can spend our lives hand in hand with nature, thoroughly appreciate the various lessons so dimly presented in books. We see things as they are—not remodelled by imagination. Our knowledge of nature is not artificial, but founded on a true basis. We see, hear and know. Who can enjoy a poet's song to a fuller extent than we? We know what it means to walk on a velvety carpet of soft green grass, with the dear blue sky above us, while the sun seems to open before our eyes numerous flowers of wondrous beauty, and all about nature's choirs sing their praises.

But farm life is not all beauty and pleasure. It has its practical side, of course, which can be better presented by a farmer's wife than by his daughter.

Illinois writer has my deepest sympathy, but I feel sure she must glean some pleasure in her life, if it is spent on a farm.

I hope there are many others who will give their views on farm life, for the benefit of Ingle Nook readers.

NAOMI.

SOME RECIPES.

I am well pleased with your paper, especially Ingle Nook Chats and Domestic Economy. I have a few recipes that may be of use to some person.

Cream Cabbage.—One small head of white cabbage sliced fine. Put in a dish and sprinkle a little salt through it, and let it stand half an hour. Then take ½ cup vinegar and 4 tablespoonfuls of sugar and pour over cabbage. Whip a cup of sweet cream and mix.

Jam-Jams.—Three eggs, 1½ cups sugar, 1 cup lard, 2 teaspoons baking powder, and 4 tablespoonfuls sweet milk; add flour to make into light dough. Beat lightly together, and roll out like tea-cake. Roll quite thin, and place two together, with jelly spread between while warm.

White Cake.—Whites of 3 eggs, 1 cup sweet milk, 2-3 cup butter, 4 cups flour, 3 teaspoons baking powder, 2 scant cups white sugar. Cream butter and sugar together, then add whites of eggs and the milk, and lastly the flour, in which the baking powder has been mixed.

Frankford. MRS. D. F.

An Irishman asked a Scotchman one day why a railway engine was called "she." Sandy replied: "Perhaps it's on account of the horrible noise it makes when it tries to whistle."

Short—Hello, Long! Where are you going? Long—I'm on my way over to the post office to register a kick against the miserable delivery service. Short—What's the trouble? Long—Why, that cheque you promised to mail me ten days ago hasn't reached me yet!

With the Flowers

A Few Hints for Early Spring.

Do not uncover protected plants or shrubs until the weather becomes settled. The alternating freezings and thawings of early spring are very injurious to all plants, except the hardiest, and by leaving the covering, the temperature close to the stems and roots is kept to some degree uniform. The mulch should be left on bulb beds until the leaves begin to appear, then but a part of it should be taken off, the rest being removed when the weather becomes mild.

Make flower beds as soon as possible, and work in the manure, which should be old, not fresh. The rains and frosts of spring will then have a chance to make an admirable seed-bed before it is time to plant the seed or set out the plants.

Sow seeds of flowers wanted for early blooming at once, if you have not already done so. The following varieties may, with advantage, be started in the house: Aster, Antirrhinum, Ageratum, Balsam, Candytuft, Coleus, Castor Bean, Dahlia, Dusty Miller, Nasturtium, Phlox Drummondii, Salvia, Sweet Alyssum, Verbena, Abutilon, Brachycome, Early Cosmos, Stocks. Later sowings of Ageratum, Candytuft, Sweet Alyssum and Phlox Drummondii may be made out of doors, in order to keep up a succession of bloom.

The following contribution, which was sent to the Ingle Nook, has been appropriated by the flower department. Many thanks, R. S.

A USEFUL WRINKLE.

Here is a "wrinkle" that may be useful to some of your readers who are interested in gardening, or rather in starting flower seeds early. Take old empty baker's cocoa or large-sized mustard tins; remove the lid, and with a pair of strong scissors or "snips" cut out one side. Replace the lid and tie around with a piece of string, and you have a neat little box, just the right depth. When filled with earth, and the seeds planted, they can be set on the upper ledge of a sunny window, out of the reach of baby's fingers, or the family cat. After the seedlings are up two or three inches, they can easily be taken out by removing the string and the lid and the end of box. The cake of earth, with the plants, slips out without any loss or trouble, and the plants can be picked off without injuring the delicate roots. These tins may seem too small, but I have grown as many as five dozen Daisy seedlings and as many Asters, Wallflowers, etc., as I wanted that way, keeping each variety in a different tin. Hoping I have not made this too long, I am, yours sincerely,

Morden, Man. R. L.

Another "wrinkle" of a somewhat similar nature is made as follows: Throw old tomato or salmon cans into the stove until the solder melts. Take them out and knock off the bottom of each. There will, of course, be an opening up the side, also where the tin has come apart. Tie each tin about with a string, and place all in a box close together. Now, fill up with earth, and when pricking out plants from the seed-boxes, put one in each can and let grow there until it is time to transplant to the garden. The lumps of clay may then be set out in holes made for them without the slightest disturbance to the roots inside. Tomatoes may be induced to ripen much earlier by this plan.

FLORA FERNLEAF.

Tuberous Begonias.

A correspondent asks information regarding the culture of tuberous begonias. Ans.—Tuberous begonias grow best in soil composed wholly of leaf mould. Pot them in March, setting the tubers in the soil with the top of each tuber level with the surface of the soil. The side showing the depression is the top of the tuber. If this does not appear, as is sometimes the case, the tuber must be very lightly covered, and kept moist until growth begins, when it may be planted

right side up. Six-inch pots are quite large enough for these plants, and one must see to it that the drainage is good. Do not put the plants in too warm a situation, a temperature of 60 degrees being quite high enough. Partial shade is best, say in an east window, or beneath the shade of trees when planted out. Water very moderately at first, until the plants are developing well, then give more water; a thorough soaking once a day, or twice a day if in a dry situation, will not be too much. When danger of frost is past the plants may be set out in the garden if preferred. In fall, when frosty nights begin, repot and bring in the house to ripen off, then store away in a warm, dry closet until spring.

The Last to Cuddle Doon.

By Alexander Anderson ("O. Surface-man"). Reprinted in answer to a request from Mrs. H. Tocher, Sunderland.

I sit afore a half-oot fire,
An' I am a' my lane,
Nae frien' or fremit dauners in,
For a' my fowk are gane,
An' John, that was my ain guid man,
He sleeps the mools amang—
An auld frail body like mysel'—
It's time that I should gang.

The win' moans roun' the auld hoose en,
An' shakes the ae fir tree,
An' as it sighs, it wakens up
Auld things fu' dear to me,
If I could only greet my heart,
It wadna' be sae sair;
But tears are gane, an' bairns are gane,
An' baith come back nae mair.

Ay; Tam, pair Tam, sae fu' o' fun,
He faun' this warld a' fecht,
Au' sair, sair he was hadden doon,
Wi' mony a weary wecht.
He bore it a' until the en',
But when we laid him doon,
The gray hairs there afore their time
Were thick amang the broon.

An' Jamie, wi' the curly heid,
Sae buirdly, big, an' braw,
Was cut doon in the pride o' youth,
The first amang them a',
If I had tears for thae auld een,
Then could I greet fu' weel,
To think o' Jamie-lyin' deid
Anath the engie wheel.

Wee Rab—what can I say o' him?
He's waur than deid to me,
Nae word frae him the weary years
Has come across the sea.
Could I but ken that he was weel,
As I sit here this nicht,
This warld wi' a' its fraucht an' care
Wad look a wee thing richt.

I sit afore a half-oot fire,
An' I am a' my lane,
Nae frien' hae I to dauner in,
For a' my fowk are gane.
I wuss that He who rules us a'
Frae where He dwells aboon
Wad touch my auld gray heid, an' say,
"It's time to cuddle doon."

Some Good Riddles.

Q. What is the difference between Noah's Ark and Joan of Arc?
A. One was made of wood and the other was Maid of Orleans.

Q. When has a man a right to scold his wife about his coffee?
A. When he has sufficient grounds.

Q. Why is Westminster Abbey like a fireplace?
A. Because it contains the ashes of the great.

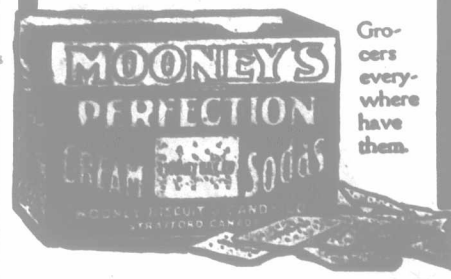
Q. Take away my first letter, take away my second letter, then take away my third; in fact, take away all my letters, yet I remain still the same. What am I?
A. The postman.

Q. What carpenter's tool do we require at an afternoon tea-party?
A. A saucer (saw, sir).

and Mooney did it

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Shirt Waist Suits. \$4.50 a tailored waist in spring style supplied instead of a coat if preferred.

Shirt Waist Suits can be made in any color, any style, made in latest spring style waist and skirt \$4.50.

Skirts alone from any of the goods \$2.50 like model.

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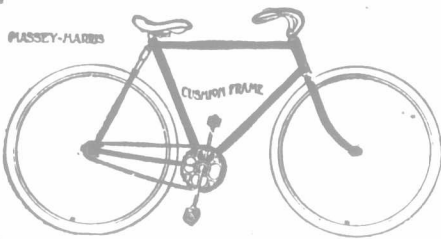
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The New Wheel



The bicycle to-day cannot be compared with any wheel of previous years. Not only has the automatic machinery used in its manufacture been improved, but by experiments a higher quality of material has been secured. Then there is the cushion frame and coaster brake which add so much to the comfort qualities of the wheel. Last there is the Sills Hygienic Handle-bar—the latest thing in bicycledom.

Massey-Harris Bicycles

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HEALTH IN THE HOME.

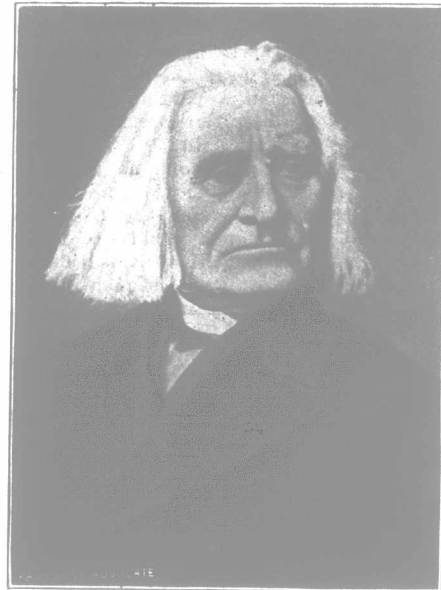
By a Trained Nurse

Clothing Should be Loose.

A child's clothing should be so constructed that the weight of it is supported by the shoulders and back. Any garment that is tight enough around the waist to keep it up, is too tight to allow the internal organs to properly perform their functions, and for the following reasons: The chest and abdomen contain the organs of respiration, digestion, etc., and these, under one set of conditions—for instance, at the end of the act of breathing out—bear certain relations to each other. These relations are changed during the act of breathing in, more or less, according to the occupation of the moment. These movements of the internal organs never cease entirely for an appreciable length of time. Now, it is obvious that if there is not room for absolutely free movement, either the lungs are not going to get as much air as they are striving for, or some other organ is going to be crowded. As a matter of fact, both these conditions prevail if clothing is too tight. A tight waistband interferes to a greater or less degree with every one of the internal organs. Not only are the muscles of chest and abdomen always moving more or less, but the stomach, as soon as it receives food, begins a rhythmical movement, for the purpose of thoroughly mixing the food with the secretions of the stomach, by means of which the material is reduced to a fluid condition, and thus prepared for absorption, or to pass on into the small intestine, where other secretions act upon it, and digestion is completed. The large and small intestine together are in the adult from twenty-five to thirty feet in length (the child's being, of course, in proportion), and attached by a broad membrane, called the mesentery, to the spinal column. The whole arrangement is comparable, roughly, to a muslin frill, gathered and attached at a certain point, and laid in orderly folds; the hem representing the intestine, and the intervening width between hem and attachment, the mesentery. The entire length of the intestine is most of the time in motion. The walls of the intestines are muscular, and by constantly contracting and relaxing force their contents along. This motion is aided by the intermittent pressure of the abdominal muscles in walking and exercising, if they are strong and vigorous. It will be seen that to have a healthy body, there must be plenty of room for all the organs to work in, and the importance of the condition of the muscles all over the body will be apparent, since the muscles of legs and arms materially aid venous circulation. The point I especially wish to emphasize is that the human body is provided in itself with everything necessary for perfect health and beauty. Children's clothing is most important, for they are constantly growing. They should have absolute freedom of movements from earliest infancy. Time was when unfortunate babies had a stiff roller wound around their little bodies, but now clothing is made by the most enlightened entirely loose and free from the shoulders. People sometimes ask why our ancestors did not apparently suffer from the evils attributed to tight clothing, since at certain periods in the past corsets amounted to instruments of torture, to which I answer that they no doubt did, but these matters were not fully discussed in those days; nor were the principles of hygiene or anatomy so well understood, so that their sufferings were not so likely to be attributed to the real cause, and even if they escaped themselves their descendants have not. The human body has tremendous powers of endurance and adaptability to have preserved its general integrity through so much ill-treatment. To what a perfection of beauty, therefore, may not the race attain, when rational and hygienic care of the body becomes the rule instead of the exception. By care, however, I do not mean fussing, but rather the habitual daily use of soap and water, cold water, the daily outdoor exercise or walk, the open win-

dows and wholesome food which health demands, and the correction of physical defects in the gymnasium, rather than the dry goods store.

ALICE G. OWEN.



Liszt.

Franz Liszt: Born, Oct. 22nd, 1811; Died, July 31st, 1886.

Franz Liszt, the "Hungarian wonder-child," was born in Raiding, near Oldenburg, Hungary, in what was known in his birthplace as the Comet year. During the month of his birth, the Comet was particularly brilliant, and his parents thought this a good omen for the happy future of their child.

The Liszts were an old family of noble birth, but very poor. Franz's father, Adam, was an accountant in the service of Prince Esterhazy, the patron of Haydn. He loved music with his whole heart, and taught his son, Franz, musical theory and the piano. The music that thrilled the boy most was the wild, sweet, pathetic songs sung by the wandering gypsies, those strange people of Hungary with the light hearts, the free, unfettered, joyous beings who love the woods and the green-edged highways better than the city streets. Among these brown-skinned gypsies, Franz Liszt spent his early childhood, and in his book, "The Gypsies and Their Music," and in those great "Hungarian Rhapsodies" of his, he has immortalized the bold, sad, whimsical gypsy spirit.

As a boy, Liszt's ideal was Beethoven, and when he was only twelve, he played at a concert given in Vienna, before this great master, who, charmed with his skilful playing, bent over and kissed the wonder-child, and so kindly welcomed him to the world of music.

At one time Liszt thought seriously of becoming a monk, and with this end in view, he went to Rome to see the Pope, Pius IX., who loved him, and called him his beloved son. After a year had elapsed, the musician was made an Abbe of the Church of Rome, and, therefore, we often hear him called "Abbe Liszt." He grew no less active, no less busy, no less kind, no less interested in all men, but he was no longer one of the gay and brilliant world.

He studied church music with the greatest attention, and was much interested in that branch of composition. The oratorios, "Christus" and "St. Elizabeth," are the best known of his church works, but many of his masses, psalms and chorals are wonderfully beautiful. His symphonies, rhapsodies and marches are exquisite compositions, and are among the most popular concert pieces to-day. The first symphony was dedicated to Richard Wagner, who married as his second wife the daughter of Liszt.

From all parts of the world came men and women to be his pupils, and his fame as a teacher was scarcely less great than his fame as a composer. He is regarded as the finest piano player that has ever lived. This gentle, world-renowned Magician of Hungary died at the

age of seventy-five, leaving many sorrowing, loving hearts to mourn his loss.—Adapted from A. A. Chapin's "Masters in Music."

The LEAVENWORTH CASE

By A. K. Green.

CHAPTER XXII.—Continued.

"The writing, in as far as it is discernible, is that of a cultivated gentleman; it is not that of Mr. Leavenworth, for I have studied his chirography too much lately not to know it at a glance, but it may be—Hold!" I suddenly exclaimed, "have you any mucilage handy? I think that if I could paste these strips down upon a piece of paper so that they would remain flat, I should be able to tell you what I think of them much more easily."

"There is mucilage on the desk," replied Mr. Gryce.

Procuring it, I proceeded to consult the scraps once more for evidence to guide me in their arrangement. These were more marked than I expected; the longer and best-preserved strip with its "Mr. Hor" at the top showing itself at first blush to be the left-hand margin of the letter, while the machine-cut edge of the next in length, presented tokens full as conclusive of its being the right hand margin of the same. Selecting these, then, I pasted them down on a piece of paper at just the distance they would occupy, if the sheet from which they were torn was of ordinary commercial note size. Immediately it became apparent, first, that it would take two other strips of the same width to fill up the space left between them; and secondly, that the writing did not terminate at the foot of the sheet, but was carried on to another page.

Taking up the third strip, I looked at its edge; it was machine-cut at the top and showed by the arrangement of its words that it was the margin strip of a second leaf. Pasting that down then by itself, I scrutinized the fourth, and finding it also machine-cut at the top but not on the side, endeavored to fit it to the piece already pasted down, but the words would not match. Moving it along then to the position which it would hold if it were the third strip, I fastened it down; the whole presenting, when completed, the appearance as shown on opposite page.

"Well!" exclaimed Mr. Gryce, "that's business." Then as I held it up before his eyes, "but don't show it me. Study it yourself, and tell me what you think of it."

"Well," said I, "this much is certain, that it is a letter directed to Mr. Leavenworth from some House, and dated—let's see; that is an h, isn't it?" And I pointed to the one letter just discernible on the line under the word House.

"I should think so, but don't ask me."

"It must be an h. The year is 1875, and this is not the termination of either January or February. Dated then, March 1, 1876, and signed—"

Mr. Gryce rolled his eyes in anticipatory ecstasy toward the ceiling.

"By Henry Clavering," I announced without hesitation.

Mr. Gryce's eyes returned to his swathed finger ends. "Humph! how do you know that?"

"Wait a moment and I will show you;" and taking out of my pocket the card which Mr. Clavering had handed me as an introduction at our late interview, I laid it underneath the last line of writing on the second page. One glance was sufficient. Henry Ritchie Clavering on the card; H—chie— in the same handwriting on the letter.

"Clavering it is," said he, "without a doubt." But I saw he was not surprised.

"And now," continued I, "for its general tenor and meaning." And commencing at the beginning I read aloud the words as they came, with pauses at the breaks, something as follows: "Mr. Hor—Dear a niece whom yo—one too who see—the love and trust—any other man ca—autiful, so char—s she in face to—conversation. ery rose has its—rose is no exception—ely as she is, char—tender as she is, s—pable of trampin—one who trusted—heart

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

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One Good Turn Deserves Another.



Help your wife—she will appreciate it and you profit by it. Nothing will contribute more to home comfort than the

New Century Ball Bearing Washing Machine
—not because we say so—thousands are talking about it, and you would too if you were its happy possessor. You sit while using it—4 tubful thoroughly cleaned in five minutes. Nothing is too good for Canadian housekeepers. The New Century is certainly the best. Sold by local dealers at \$2.50. Ask your dealer to show it to you. Send to us for descriptive booklet. THE DUNSWELL MFG. CO., 170, HAMILTON, CANADA.

CANADIAN PACIFIC RY. SETTLERS' TRAINS

Will leave Toronto every Tuesday during March and April at 9 p. m. for Manitoba and the Northwest and run via Grand Trunk/North Bay and Canadian Pacific. A colonist sleeper will be attached to each train. Passengers traveling without live-stock should take the train leaving Toronto at 1 45 p. m. Train leaving Toronto at 9 p. m. is for passengers traveling with stock.

Full particulars and copy of Settlers' Guide and "Western Canada" from any Canadian Pacific agent or

C. B. FOSTER, D. P. A., Toronto.

FORWARD TO J. W. Westervelt, London, Ont.

A specimen of your Penmanship and he will return it with criticism. No charge. The

FOREST CITY BUSINESS & SHORTHAND COLLEGE, LONDON, ONT.

Y. M. C. A., makes a specialty of training young people to write. Catalogue free.

J. W. Westervelt, Principal.

Uncle George—And how do you like your employer, Tommy. Tommy—Oh, he isn't so bad; but he's awfully bigoted. Uncle George—Bigoted? In what way? Tommy—He's got an idea that words must be spelled just his way.

Visitor—Tommy, I wish to ask you a few questions in grammar. Tommy—Yes, sir. "If I give you the sentence: 'The pupil loves his teacher,' what is that?" "Sarcasm."

Kitty—Grandpa, if I walk down the front steps backward, I'll see my future husband. Grandpa—You'll be more apt to see the doctor.

DODD'S KIDNEY PILLS

CURES ALL KIDNEY DISEASES

BRIGHT'S DISEASE
DIABETES
BACKACHE

Discontinued the use of our pills because of imitations. Sold only in original package. The public may rely on the name of Dodd's.

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"It reads like a complaint against one of Mr. Leavenworth's nieces," I said, and started at my own words.

"What is it?" cried Mr. Gryce.

"What is the matter?"

"Why," said I, "the fact is I have heard this very letter spoken of. It is a complaint against one of Mr. Leavenworth's nieces, and was written by Mr. Clavering." And I told him of Mr. Harwell's communication in regard to the matter.

"Ah! then, Mr. Harwell has been talking, has he? I thought he was sworn off from gossip."

"Mr. Harwell and I have seen each other almost daily for the last two weeks," replied I; "it would be strange if he had nothing to tell me."

"And he says that he has read a letter written to Mr. Leavenworth by Mr. Clavering?"

"Yes; but whose particular words he has now forgotten."

"These few here may assist him in recalling the rest."

"I would rather not admit him to a knowledge of the existence of this piece of evidence. I don't believe in letting any one into our confidence whom it is possible to keep out."

"I see you don't," drily responded Mr. Gryce.

Not appearing to notice the fling conveyed by these words, I took up the letter once more, and began pointing out such half-formed words in it as I thought we might venture to complete, as the Hor—, yo—, see—, autiful—, char—, for—, tramplin—, pable—, serv—.

This done I next proposed the introduction of such others as seemed necessary to the sense, as Leavenworth after Horatio; Sir after Dear; have with a possible you before a niece; thorn after its in the phrase rose has its; on after trampling; whom after to; debt after a; you after if; me ask after believe; beautiful after cruel.

Between the columns of words thus furnished, I interposed a phrase or two, here and there, the whole reading when done as follows:

— House.
— March 1st, 1876.
— Mr. Horatio Leavenworth,
— Dear Sir:—(You) have a niece whom you one too who seems
worthy the love and trust
of any other man ca so
beautiful, so charming is
she in face form and conversation.
But every rose has its thorn and (this)
rose is no exception

lovely as she is, charming (as she is),
tender as she is, she is
capable of trampling on
one who trusted her
heart a

him to whom she owes a debt of honor
a—
—ance—
"If you don't believe me ask her
to—her—cruel beautiful
face—what is (her) humble
servant yours:
— Henry Ritchie Clavering."

"I think that will do," said Mr. Gryce, "we have got the general tenor of it, and that is all we want at this time."

"The whole tone of it is anything but complimentary to the lady it inveighs against," I returned. "He must have had, or imagined he had, some desperate grievance, to provoke him to the use of such plain language in regard to one he can still characterize as tender, charming, beautiful."

"Grievances are apt to lie back of mysterious crimes."

"I think I know what this one was," I said; "but"—seeing him look up—"must decline to communicate my suspicion to you for the present. My theory stands unshaken and in some degree confirmed, and that is all I can say."

"Then this letter does not supply the link you wanted?"

"No; it is a valuable bit of evidence, but it is not the link I am in search of just now."

"Yet it must be an important clew, or Eleanor Leavenworth would not have been to such pains, first to take it in the way she did from her uncle's table, and secondly—"

"Wait," I said; "what makes you think this is the paper she took, or was

*him to—he owes a
—honor—
—ance—
"If—t believe—her to—cruel—
face,—what is—ble serv—yours
—H—chie—"*

believed to have taken, from Mr. Leavenworth's table on that fatal morning?"

"Why, the fact that it was found together with the key, which we know she dropped into the grate, and that there are drops of blood on it."

I shook my head; she had told me the paper which she had taken at that time was destroyed, though to be sure she might have so considered it.

"Why do you shake your head?" asked Mr. Gryce.

"Because I am not satisfied with your reason for believing this to be the paper taken by her from Mr. Leavenworth's table."

"And why?"

"Well," said I, "first, because Fobbs does not speak of seeing any paper in her hand when she bent over the fire, leaving us to conclude that these pieces were in the scuttle of coal she threw upon it, which, surely, you must acknowledge to be a strange place for her to have put a paper she took such pains to gain possession of; and, secondly, for the reason that these scraps were twisted as if they had been used for curl papers or something of that kind; a fact hard to explain by your hypothesis."

The detective's eye stole in the direction of my necktie, which was as near as he ever came to a face, with an expression of great interest. "You are a bright one," said he, "a very bright one; I quite admire you, Mr. Raymond."

A little surprised, and not altogether pleased with this unexpected compliment, I regarded him doubtfully for a moment, and then asked:

"What is your opinion upon the matter?"

(To be continued.)

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.

INCUBATORS, Poultry and Pet Stock Supplies.—Our incubators are guaranteed. You run no risk. Write at once for a large new catalogue. A. J. Morgan, London, Ont.

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

WHITE WYANDOTTES, great winter layers. Strongly-fertilized eggs, \$1.50 per 15. Incubator lots special. Chas. A. Goulding, Vinemount, Ont.

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

WHITE WYANDOTTES—Second Ontario cockerel heading first pen. Write for eggs. Aaron Witmer, Berlin, Ont.

EGGS from imported and prize-winning. Barred and White Rocks, White and Brown Leghorns, White Wyandottes, Buff Orpingtons, Black Minorcas. Write for prices. William Manley, Bridgen, Ont.

LARGE Snow-White Wyandottes. Eggs \$2.00 per fifteen, from my prize-winners. (See Mr. Langellier's article in Farmer's Advocate, Feb. 23, page 264. R. W. Kemp, Tambling Corners, London.

FOR SALE—Buff Orpingtons, Golden Wyandottes, White Leghorns. Also eggs, \$1 per setting, William Daniel, Plattsville, Ont.

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

FARM RAISED, prize-winning Buff Orpingtons, W. Rocks, Rose-comb White Leghorns, Bronze turkeys. Eggs, \$2 per setting. Wm. A. Rife, Hespeler, Ont.

BARRED ROCKS. Try a setting of eggs from our imported pen. Only \$1.50 per setting. Orders booked now. A. E. Sherrington, Walkerton, Ont.

BARRED Rocks exclusively. Eggs from prize stock, \$1 setting; fifty, \$2.50; per hundred, \$4. Miss Emily Spilbury, Colborne, Ont.

WHITE Wyandotte and Buff Orpington eggs \$1.50 per setting. Cash with order. C. W. Beaven, "Pinegrove," Prescott, Ont.

ORPINGTONS—Buff, Black, White. Why not have the very best obtainable? First cost may be a little more, but you get the stock and blood from the grandest winning strain in America, and from the largest Orpington breeder. Send for 40-page illustrated Orpington catalogue, also listing List describing thirty-two breeding yards and prices of eggs. The blood from the largest winners at New York the past three years are in these yards. Bx 74. Willow Brook Farm, Berlin, Conn.


The Daniels INCUBATORS



Are the latest and most modern invention for artificial hatching of turkeys, chickens and ducks. Do not forget we guarantee the Daniel's incubators to be satisfactory to the purchaser. We manufacture Chas. A. Cyphers Model Incubators and Brooders. Made in Canada. We carry a full line of poultry supplies. Our new catalogue is out, and is free for the asking.

C. J. DANIELS, 196 to 200 RIVER ST., TORONTO

SHOEMAKER'S BOOK ON POULTRY



and almanac for 1905, contains 324 pages, with many fine colored plates of Lewis true to life. It tells all about chickens, their care, diseases and remedies. All about INCUBATORS and how to operate them. All about poultry houses and how to build them. It's really an encyclopedia of chicken-dom. You need it. Price only 15c.

C. O. SHOEMAKER, Box 808, FREEPORT, ILL.

Barred Rocks—We offer eggs for hatching from pens good in size, shape, color and laying qualities at \$1 per 13, \$2.50 per 39, \$5 per 100. 100 egg circular free. **O. H. GIBB & SONS, Rahmah Centre, Ont.**

"GASOLINE ENGINES.—For cheap, handy, steady power, nothing equals the gasoline engine. A child can start or stop it in a moment, and the evenness of the speed commends it to everyone in need of a steady power. Advertising in our columns are three firms, the Georgian Bay Engineering Works, Midland, Ont.; McLachlan Gas Engine Co., 201 Queen St., E., Toronto, and the Ontario Wind Engine and Pump Co., Ltd., also of Toronto. Anyone contemplating installation of a motive plant for general farm purposes should write these firms for catalogues; comparison cannot but be instructive.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

QUESTIONS AND ANSWERS.

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

Miscellaneous.

LIVE-STOCK INSURANCE.

Will some reader of the "Farmer's Advocate" give the address of a company in Canada that insures horses? I have a pair of valuable mares in foal, and would like to have them insured. J. B.

WET OR DRY BATTERIES FOR TELEGRAPH KEY AND SOUNDER.

Will dry batteries make the necessary connection with a telegraph key and sounder to operate while learning, or must the wet be used? READER.

Ans.—Dry cells are what you want. Wet or vitriol batteries are used for outside connections.

MARKET QUOTATIONS.

You report bran at \$14.50, and shorts at \$17 in bulk; also red clover at \$6.50 to \$7.65. Where can I purchase at or near that figure? W. R.

Ans.—The prices quoted were the Toronto wholesale prices. At that time retail prices for feed would be one to three dollars higher. Of course, in these reports, allowance must always be made for fluctuations. For seeds, correspond with our advertisers.

LUMP JAW CURED.

I have a cow that has lump jaw. Have cured it. There is quite a lump or thickening left, but it is all healed up the last four months. She is raising the fourth calf now. Could I let her go dry in the spring, and fatten her on grass, and sell her for beef, or would I be running a risk of a penalty?

A SUBSCRIBER.

Ans.—If cured, as stated, you would probably run no risk, and the meat would be wholesome; but to make sure, you had better consult the township health officer. In case the disease reappeared and you sold her for beef, both yourself and the butcher who bought her would be liable.

OWNERSHIP OF CALF.

I rented a farm from March 1st, 1904, to March 1st, 1905. I was to pay the taxes, and for doing so I was to have the use of a team of horses and three or more cows. He gave me three cows; one was a Jersey grade and one a Holstein grade, the other a registered Holstein. The first mentioned calved in July, 1904; the second in April, 1904, the third in December, 1904. The grade cows' calves he did not ask for, but the registered cow's calf he wanted to get. He claims he got the cow served to his thoroughbred bull, but there was no agreement that he was to have the calves. Who is entitled to the calf? R. M.

Ans.—We think it belongs to you.

ORIGIN OF HACKNEYS.

1. Were the Hackneys originated by crossing Shire horses on small mares? If not, what did they originate from?
2. Will the Hackneys cross all right on road mares, say from 950 to 1,050 lbs., or are they apt to breed like the Clydesdale on such mares? P. M.

Ans.—1. The Hackney is one of the purest bred of the British breeds of horses; next, indeed, in that respect to the Thoroughbred or "Blood" horse. The foundation stock of these two breeds, in many instances, is nearly identical, the same sires having been used. The Hackney is the highest type of carriage horse, and no better cross could be made on the small mares referred to. The Hackney stallion is an improver on every class for the production of high-class carriage horses.

Settlers' Low Rates West.

Via the Chicago and Northwestern Railway every day from March 1st to May 15th, 1905. Settlers one-way, second-class tickets at very low rates from Chicago to points in Utah, Montana, Nevada, Idaho, Oregon, Washington, California, also to Victoria, Vancouver, New Westminster, Rosland and other points in the Kootenay district. Correspondingly low rates from all points in Canada. Write for full particulars and folders to B. H. Bennett, General Agent, 2 East King St., Toronto, Ont.

GOSSIP.

LAST CALL FOR MR. BEITH'S HACKNEY SALE.

Once more we remind our readers of that important event, the dispersion sale, by auction, on March 29th of the great stud of imported and home-bred Hackney stallions, mares, fillies and harness horses belonging to Mr. Robert Beith, of Bomanville, Ontario, at his Waverly Stock Farm there, 40 miles east of Toronto on the G. T. R.

It is twenty years since the Hackney first found a home in the Waverly stables. Always convinced of their superiority over all other breeds for the improvement of our horse stock, attracted by their happy combination of substance and size with quality, conformation and action, Mr. Beith was early convinced that in the Hackney, pure-bred, or judiciously crossed on our roadster mares, would be found the ideal harness horse, the horse that would appeal not only to horsemen, but to breeder and buyer, the kind that the farmer could raise and sell at a profit, and that the man of leisure or the man of business would pay for.

Acting on this conviction, he followed the fortunes of the British-bred harness horse since that time. During the past year, he has seen this horse, bred for generations for beauty, speed, style, stamina and all-round lofty action, triumph over all competitors, winning nine-tenths of the prizes offered for harness horses of all kinds, in competition with the best horses of other breeds in the world.

The outstanding superiority of the Hackney as the highest type of carriage horse is to-day admitted by all competent and unprejudiced horsemen. The prospect before the Hackney is a bright one. Carriage teams have always been in active demand, but never more so than at the present time. This is especially true of those that have good style, conformation and action.

Since the first importations made, the Waverly Hackneys have been exhibited successfully at the leading shows of America. An examination of the catalogue will show that it contains not only the winners at the leading shows, but that all the animals offered are the progeny and produce of winners themselves.

By the continuous victories of Mr. Beith's horses against the strongest international competition, the Hackney has been placed in the forefront of the harness breeds in America. In the United States his success has been remarkable, his entries winning the stallion and mare championships at both Chicago and St. Louis World's Fairs, at the Chicago International and the great New York Show. Last season, to bring the record down to date, Mr. Beith's Hackneys won no less than forty-five ribbons between St. Louis, Chicago and Toronto shows, a majority of this number of trophies, first prizes, the seconds and thirds being received in classes where, as a rule, his own horses won.

At the head of the Waverly Stud will be found the wonderful stallion, Saxon, a rich brown, full fifteen hands three inches—the limit of true Hackney conformation—probably as sensational an actor as was ever seen on this continent. This horse, cast in beautiful mould, has such extraordinary quality and finish that it is no exaggeration to pronounce him quite the handsomest stallion of his size and age (six years) on offer. Like his illustrious sire, Robin Adair II, that Mr. Beith "discovered" way out in Calgary as the best son of England's champion, Rufus, and won the New York championship with, Saxon will appeal to all lovers of high-class harness stallions as suitable to head a carriage horse breeding establishment. Mr. Beith might well have rested content when he placed Robin Adair of the Rufus family, and his great son, Saxon, within reach of his mares, for, with what young stock he himself raised and mature animals of similar breeding which he purchased, there could be no question of the superiority of his stud. This, however, did not satisfy his ambition, and so, last season, there were imported the remarkable two-year-olds, Cliffe Rosador, by England's premier sire, Rosador; St. David, of similar strain; Terrington Bellerophon, son of the great horse, Goldfinder; the three-year-olds, Royal Drexton, by His Majesty, the popular English sire of to-day, and the Garton Duke of Connaught colt, Wadsworth Squire, together with the Royal Danegelt yearling, Lord Meltonby, and a consign-

ment of mares which comprise the bluest blood that runs in English hackney veins. These together with the splendid string of mares, fillies and trained harness horses to be sold should prove attractive to a wide constituency. Remember the date, March 29th, and take in this most interesting event.

A few sales of cattle have been made at Dunkeld, Ont., at 4¢ to 5¢ per lb., to be delivered early in May.

Messrs. J. Crouch & Son, LaFayette, Indiana, and London, Ontario, report the safe arrival, on March 5th, of a new importation of 131 head of German Coach, Percheron and Belgian stallions. This firm has a strong representation of their horses at their London branch stables, as set forth in their advertisement.

The importing stable of Dr. John Watson, V. S., Howick, Que., has a few No. 1 stallions on hand, consisting of Shires, Suffolk Punches and Hackneys. A Shire colt, rising three, that would stand some beating, is Harold of Howick (imp.), a jet black with strip and four white feet, by Coldstream Guard 2nd, Vol. 26, dam Cluster Rose, Vol. 21, a full sister to Prince Harold, said to be one of the best in England. This is a strong, clean-boned colt, with good feet and feather, one that will make a show horse. Imp. Coldstream Harold is a brown, rising four, sire the same as above, grandsire Coldstream 13961. This is also a good quality horse, about 1,800 lbs., with good feet and legs, and fairly light feather. Among the Suffolk Punches are two good-quality imported stallions, rising three years, namely, Sproughton Lad, by Pratts the Squire 2722, dam Blaze 3142, by Cook's Bar None 1803, and Sproughton King, a dark chestnut, by White's Ganymede 2842, dam Princess 4442, a flashy, sweet-topped colt, with good legs and feet. The Hackney is Duke of Blackfoot (imp.) 175 7782, a dark chestnut, sire Garton Duke of Connaught 3009, dam Newbald Regina, by Lord Derby, a horse full of substance, won first at Ottawa, 1903, as well as some important prizes in Great Britain. Dr. Watson is anxious to sell some of these horses. Call on him early and get your choice, or write for particulars.

TRADE TOPIC.

CONTRACTS FOR IDEAL FENCING.—A number of large contracts for railway fencing have been closed lately. The McGregor-Banwell Fence Company, Limited, of Walkerville, Ont., manufacturers of Ideal Woven Wire Fencing, have secured contract for fencing the James Bay Railway, 170 miles; Guelph and Goderich Railway, 80 miles; Victoria Beach and Middleton Railway, N. S., 83 miles; Canadian Pacific Railway, Pheasant Hills Branch, N.-W. T., 155 miles. In addition to this, the C. P. R. have arranged with them for fencing required for maintenance purposes. All of this is for IDEAL Fencing, made with No. 9 hard steel wire for both stays and horizontals, as it has been found by the railway companies by practical tests that this style is best adapted for their purposes, being the best and most durable barrier against stock. Railroads look to permanency, and farmers looking for a durable fence should write to The McGregor-Banwell Fence Co., Merick, Anderson & Co., Winnipeg, sole agents for Manitoba and N.-W. T., for their illustrated catalogue. It will be mailed free to any of our readers.

TRADE TOPICS.

SEED FIRM AT SWANSEA.—Smith Sisters, Swansea, Ontario, are doing an extensive seed business. They sell by letter only. Many well-to-do farmers and gardeners now buy their seeds because the prices are very reasonable. They issue a catalogue.

NORTHERN BUSINESS COLLEGE.—Spring term opens at The Northern Business College, Owen Sound, Ont., April 3rd, 1905. The spring is an excellent time to begin a course at the Northern Business College, Owen Sound. Spring term opens April 3rd, 1905.

MEN FOR POSITIONS.—President Creelman, of the Ontario Agricultural College, announces elsewhere in this issue of the "Farmer's Advocate" that about April 15th a number of thoroughly practical graduates will be available, well qualified to act as foremen or managers of farms. Persons in need of such should at once communicate with President Creelman.

WILHELM'S BROOD MARE SPECIAL.—Mr. J. Wilhelm, V. S., Shakespeare, Ont., writes: "For those breeders that had trouble with their foals, it would be well to try Wilhelm's Brood Mare Special, as it is guaranteed to prevent running navel and big knees, and is highly recommended by breeders that have used it. If you cannot advise a man, how are you going to help him." See advertisement in another column.

BIBBY'S FEEDING MEALS.—Messrs. J. Bibby & Sons, of Liverpool, England, are considered the largest manufacturers of cattle meals in the world. Their products are good. In Canada, this firm is represented by William Rennie, seedman, of Toronto, and we understand that the sale of Cream Equivalent, which is especially made for calves, has been doubled within the past year. This shows that reliable goods, which have value and merit, are what stock-raisers desire.



Josiah Reed's Experience with CANCER

CLAYPOOL, IND., June 30, 1904.
DR. D. M. EYE CO.,
Indianapolis, Ind.

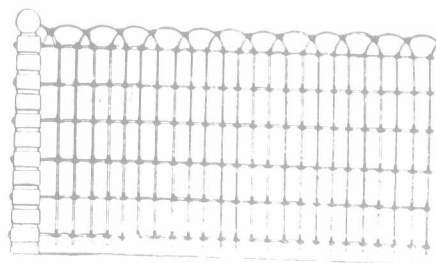
GENTLEMEN—I will write what the Combination Oil Cure has done for my cancer. It was December when I first corresponded with you, and how hard it was to convince me, even after the literature had been sent, that cancer could be cured. I had been taught from my youth up that cancers could not be cured by man. At the time I began treatment, the cancer, which was located beneath my left eye, protruded to such an extent that I could not wear my glasses, and the sight of my left eye was impaired. It had been growing for about six years, beginning when I was 72 years old; am now 78. My father before me had a cancer that caused his death. After using your treatment as you instructed, my cancer was entirely eradicated, and to-day there is hardly a scar left and the sight of the eye is nearly as strong as the other one, "praise the Lord." I hope that your name will never die, and that your soul will forever find rest in Him. Your unworthy servant, healed and saved to the uttermost.

JOSIAH REED.

All forms of cancer and tumor cured by soothing, balsam oils. Doctors, lawyers and ministers endorse it. Write for free book to the Home Office of the Originator, Dr. D. M. Eye Co., Drawer 505, Dept. 78, Indianapolis, Indiana.

[Cut this out and send to some afflicted one.]

WE HAVE THE FINEST LINE OF Ornamental Fences



MADE IN CANADA.

— ALSO —

Ornamental and Farm Gates

ESPLEN, FRAME & CO., STRATFORD, ONT.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

QUESTIONS AND ANSWERS. Miscellaneous.

LIABILITY TO STATUTE LABOR.

The assessor being at a house on Feb. 21st, 1905, and assessing B as 21 years of age; can B be called out to do road-work, B not being 21 until the 30th of March, 1905? GLEN MORRIS.

Ans.—Not until 30th of March, but we think that he may be on or after that date.

SEEDING DOWN ORCHARD.

I intend to seed down my orchard. Would you advise me to sow alfalfa? I want it for green feed. SUBSCRIBER

Ans.—We would not seed alfalfa in an orchard, except possibly as a cover crop to be sown in July or August, and plowed under next spring. Once well established, its extensive root system injures the trees by depriving them of moisture and plant food. Sow the alfalfa somewhere else.

MARRIED WOMAN'S PROPERTY.

I bought a bush lot in the year 1889 with my own money, and took deed in my wife's name; thought it would be safer to be sure of home. Now it is well improved. My wife now says I have no claim.

1. Was law passed to that effect before I bought or afterwards? I would like to know how I stand before I make more improvements.

2. Can she sell and convey without my signature? ONT.

Ans.—1. Before. 2. Yes.

DEVISEE SELLING FARM.

A died and left all his property, both real and personal, to his wife, and appointed her sole executrix of his last will and testament. The widow now wishes to dispose of the farm property. What length of time must elapse from the death of A before the widow can give a deed to property, the will being registered, but not probated? The farm property is in the Province of Ontario. W. G.

Ans.—She may do so as soon as she has obtained probate, and that may be had at the expiration of a week from the date of her husband's death. Ordinarily, it is requisite that probate be taken out. In some cases, it is possible to dispense with it, but such cases are not common.

EMPLOYEE LEAVING

1. What is the law in regard to a hired man leaving you, who is hired for the year for so much? He has been with me for over three months, and received in that time \$22, and then picks up and leaves without a word to anyone. He was hired by word of mouth before a witness.

2. Can you make him put in his full year?

3. What can you do to him in regard to leaving without notice?

4. Can he be punished?

Ans.—1, 3 and 4. He renders himself liable to be sued for damages for his breach of contract; and in the event of his proceeding to recover the balance of wages, he would probably fail; at all events, he would not succeed as to the whole of such claim.

2. No.

NONFULFILMENT OF CONTRACT.

A has oak tops, which B, by duplicate written agreement, agrees to cut into cordwood for the half. According to agreement, B had until the 1st of May, 1904, to complete the work, but did not complete the job. In October, 1904, A, before witness, told B he would give him just one month to complete his contract, and if it was not done then he forbade him to cut any more, and would give job to another. There are five cords of wood cut by B that have not been divided.

1. Can A hold this for damages and violation of contract, and sell the same without consent of B?

2. Can A allow another to finish the work without consulting B?

3. How can A best rid himself of B, as his word is of no value? J. C.

Ans.—1. No; but he is, of course, entitled to retain his half.

2. Yes.

3. We consider that A has already done all he was obliged to do with regard to B, and that it is quite open to him to employ someone else.

The Average Man Doesn't Know The First Thing

about flour, but the woman who does the family baking—she is the one who appreciates Royal Household Flour—made by the new electrical process—because when she tries it with the simple "Royal Household" recipes she finds it makes better, sweeter, whiter, lighter Bread, Buns, Rolls, etc., and more crisp and delicious Pastry than she ever made before, and she is not afraid to say so.

South Range, Digby Co., N. S., November 22nd. "I want to tell you that Royal Household Flour is the best I ever used in all my life, and the only kind I will have as long as I can get it." (Signed.) MRS. ALEX. PORTER.

To any woman sending in name and address to The Ogilvie Flour Mills Co., Limited, Montreal, and mentioning this paper, these recipes will be sent FREE.

FARM MANAGERS

On April 15th the Ontario Agricultural College at Guelph will turn out a number of young men specially qualified to act as foremen or managers of large farms. These men have all had practical farm experience to start with, and in addition they have had two or more years at the Agricultural College, learning the most modern methods of farm practice. They are all good workers and capable of handling men and teams. They will take engagements for the spring and summer months, or from one to five years. Salary expected, \$40 a month and upwards, according to work and responsibility. G. C. CREELMAN, President

G. C. CREELMAN, President



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

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

SWAN RIVER FARM.—My husband being deceased, and finding renting unsatisfactory, I offer, cheap, 320 acres first-class improved land. For further information write Mrs. N. Gable, Swan River, Man.

GINSENG—Canadian roots best. Write E. Beattie, Highgate.

FARM HAND WANTED—Married or single, by the year; state wages; none but good men need apply. Address, Farmer's Advocate, London, Ont.

WANTED—Reliable man to work farm. Must have his own stock. Liberal terms. Apply T. S. Scott, Tyndal, Man.

THE Herbert raspberry, Canada's greatest horticultural production. Earliest, hardiest, largest, finest-flavored, most productive. Send for illustrated list. Renfrew Nurseries Co., Ltd., Renfrew, Ont.

Rheumatism Cured

Starr's Magic Rheumatic Cure gives immediate relief, removes uric acid from the system. Don't suffer longer, when you can get completely cured of Rheumatism in all its forms; also Lumbago, Sciatica, Gout and Kidney Troubles. Try one bottle. Ask your druggist for it, or send direct to OSBORNE REMEDY CO., 175 Yonge St., Toronto. \$1.00 per bottle

\$3 a Day Sure Send us your address and we will show you how to make \$3 a day absolutely sure; we furnish the work and teach you free, you work in the locality where you live. Send us your address and we will explain the business fully; remember we guarantee a clear profit of \$3 for every day's work absolutely sure. Write at once. SPECIAL SILVERWARE CO., Box 706, Windsor, Ont.

NOTICE TO OUTGOING TENANT.

A rents from B a farm of fifty acres for a term of five years. The term expires 31st of March, 1905. Is it necessary for B to give A any notice to remove his things off place by the time mentioned, as the farm has been rented to C, whose term begins 1st of April? L. S.

Ans.—It is not legally requisite that he should do so.

CEMENT CONCRETE FOR ROOFING.

Camby Charlton, Elgin Co., Ont., asks, through the "Farmer's Advocate," if any reader has tried cement concrete as a roofing for a house; the cost of same, compared with slate, method of constructing, thickness, and proportion of cement; also whether it has proved satisfactory or not.

Ans.—There would be at least two disadvantages, the weight, and the danger of the concrete cracking, unless the frame and foundation were exceedingly firm. The concrete should be mixed in the proportions of about one of Portland, or one and a half of hydraulic, to two parts of gravel. Poultry netting, though advised, is not indispensable. We would suggest a thickness of one and a half to two inches.

ARTESIAN WELLS.

Our water supply is not satisfactory. We are thinking of sinking an artesian well for house and stable use. We would be obliged if you would tell us in your valuable paper what you think of this kind of well, and whether you know of any reliable firm who would undertake to find a good supply of water for us by this method. If possible, the well must be near the house, which stands on the south side of a hill. The soil is clay, and the rock of the surrounding country is limestone. Do you consider that with this formation there is a likelihood of striking a good water supply at a reasonable depth and outlay? Is it customary for firms who do this sort of work to contract to find a good water supply, or only to do the boring on a chosen site? "93RD."

Ans.—Water can be obtained almost anywhere by going through the rock. There are well drillers all over the country, who drill and "case" the wells with 4- to 5-inch casing. The cost would be about \$1.50 per foot completed. Will parties willing to undertake this work, say 70 miles east of Toronto, please write the "Farmer's Advocate," not for publication, but for the information of the enquirer.

SEEDS That can be depended on every time to produce the best crops. Results have been proving this a fact for the past 37 years. EWING'S Free, our '05 Illustrated Seed Catalogue. Write for it NOW—it explains. Willian Ewing & Company Seedsmen, 142-146 McGill St., Montreal

BRIGHT YOUNG MEN WANTED To qualify for positions as telegraphers on Canadian railways at from \$40 to \$60 per month. Our new telegraph book, giving Morse alphabet and full particulars, mailed free. DOMINION SCHOOL OF TELEGRAPHY 9 Adelaide Street East, Toronto. The only perfectly-equipped Telegraph School in Canada, in which a really competent staff of teachers is employed.

Portrait of the Late Bishop Baldwin 11 x 15, on heavy plate paper, suitable for framing, together with memoir, the funeral service and sermon on the occasion; price for the two, 25c.; 5 sets, one address, \$1.00; cash with order. The London Printing & Lithographing Co., LONDON, ONTARIO.

IMPORTED Shire and Suffolk Punch Stallions rising 3 and 4 years old, of first quality, for sale reasonable, considering quality. Apply to DR. JOHN WATSON, IMPORTER, Howick, Que.

ADVERTISE IN THE ADVOCATE.

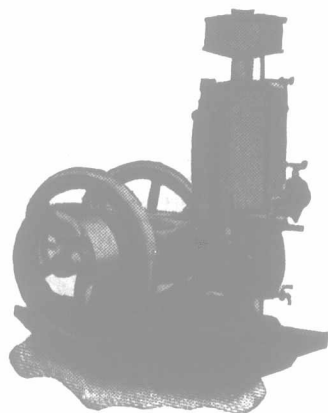
In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

HAD TO GIVE UP ALTOGETHER AND GO TO BED.
DOCTORS DID HER NO GOOD.
 By the time Miss L. L. Hanson, Waterside, N. B., had taken Three Boxes of MILBURN'S HEART AND NERVE PILLS She Was Completely Cured.

She writes us as follows:—
 "Gentlemen,—I feel it my duty to express to you the benefit I have derived from Milburn's Heart and Nerve Pills. A year ago last spring I began to have heart failure. At first I would have to stop working, and lie down for a while. I then got so bad that I had to give up altogether and go to bed. I had several doctors to attend me, but they did me no good. I got no relief until urged by a friend to try Milburn's Heart and Nerve Pills. I sent to the store for a box, and by the time I had taken three-quarters of it I began to get relief, and by the time I had taken three boxes I was completely cured. I feel very grateful to your medicine for what it has done for me.—Miss L. L. HANSON, Waterside, N. B."

Price 50 cents per box, or 3 for \$1.50.
 All Dealers or
THE T. MILBURN CO., LIMITED,
 Toronto, Ont.

GASOLINE ENGINES



If you prefer an ENGINE to a WINDMILL, write us.
The "STICKNEY"
 will tickle you. Safe, economical and very simple.
Ontario Wind Engine & Pump Co.,
 Toronto, Ont. Limited

VALLEY HOME STOCK FARM
S. J. PEARSON, SON & CO.
 Breeders of Shorthorn Cattle, Berkshire Swine & Shropshire Sheep.
 For sale, seven young bulls fit for service, four from imported sires and dams. All pure Scotch breeding, of choice quality. Prices away down for quick sale. No reasonable offer refused. Also a choice lot of young Berkshires. Visitors welcomed.
 Meadowvale P. O. Tel. & Station on C. P. R. Six miles from Brampton on G. T. R.

THE L. O. SMITH
FEED & LITTER CARRIERS.
 Patented June 16th 1903.
 Can be adapted to any barn or farm building.
 Write us for particulars.
LYMAN G. SMITH
 OSHAWA, ONT.

WRITE FOR
CIRCULAR
FOR RAW FURS
 To **McMILLAN FUR & WOOL CO.**
 MINNEAPOLIS, MINN.
 DEPT. 20

SUNNYSIDE AYRSHIRES
 Are now offering Leader of Meadow Bank, the Pan-American winner, and three young bulls, from 1 year to 2 mos. old; also cows and heifers, all ages. Prices right. Address
JOHN W. LOGAN, Allan's Corners, Que. O.

QUESTIONS AND ANSWERS.
 Miscellaneous.

TREATMENT FOR SMUT IN OATS.
 Please give a formula for treating oats and other grain for smut, and how to proceed. I have some Tartar King oats that are smutty. Is air-slacked lime dusted over them in the bin sufficient treatment, and how long will they need to be kept covered with lime? A. S. J.

Ans.—For treatment of oats for smut, see article in last issue. We have never heard of lime being used for this purpose. Would not advise it.

BRITISH EMPIRE POPULATION.
 What is the average annual increase in population of the British Empire? Newfoundland. S. R.

Ans.—The population of the British Empire increases at the rate of over one million a year; to be exact, 1,303,115, the population in 1891 having been 381,404,960, and in 1901, 394,436,111, according to the series of Imperial censuses of those years taken in the several colonies and dependencies of the Empire.
GEORGE JOHNSON,
 Dominion Statistician.

SHRINKAGE IN MILK—HALF UDDER.
 We have a cow that gave less milk out of the left side of the udder than the right last season. This year after calving, she gives less still, hardly a cupful from each teat; right-hand side gives the usual quantity. Cow has never been sick; feeds well, and looks well. Nor have we seen anything wrong with her teats, except the shrinkage in milk. Can you tell us any reason for the shrinkage, or a cure for it? Would the milk come back if we bred her again?

Ans.—The trouble which your subscriber refers to, is one that happens quite frequently with cows. The best way to treat this is to always milk these quarters first, and manipulate the udder at each time of milking in order to stimulate the secretion of milk. In bad cases the quarters will dry up, and there is practically no remedy for it. The cause is probably the result of an injury. If she is a valuable cow, I think it would be quite safe to breed her again.

KING SYSTEM OF VENTILATION.
 Realizing, as we do, that stone and cement basements are more or less a failure, and, we believe, from want of proper ventilation and light, myself and neighbor, Mr. W. J. Carpenter, intend building quite large barns with stone and cement basements, and wish, if possible, to overcome the difficulty. Now, some advocate one system, while others recommend quite a reverse one, and we are at a loss to know what is best. We want something as cheap as consistent with means. Can you describe in next week's "Farmer's Advocate," or the week after, your best scheme, also the King system? Norfolk Co., Ont. D. K. S.

Ans.—While there are several good systems of ventilation, as described from time to time in the "Farmer's Advocate," there is not, as yet, any approved "best system." The plan described in W. A. Dryden's letter, in issue of March 16th, appears to be satisfactory, though we are inclined to think, it would be an improvement to substitute for the open window the intake system of the Usher plan, also described in the Questions and Answers department, same issue. One or other of these plans, or some modification thereof, is the best we can advise. King, in his book, "Physics of Agriculture," outlines a number of different ideas, all incorporating, however, much the same principle. Air is admitted through several apertures in the walls, several feet from the ground. The flues may be made of ordinary stovepipe, with elbow, or galvanized iron conductor pipe, or the holes through the wall may be ordinary 5-inch drain tile, with elbow stovepipe on the inside. The object in having the elbow is to carry the fresh air to the warm atmosphere of the ceiling and diffuse it without draft on the animals. The foul air is carried off by flues at the side or in center of stable, running up from near the floor, and having openings also at the ceiling. If side flues are used, they may be supplemented by one or more running up from the ceiling over the center of the stable, all the flues being carried to the peak of the barn, and there connected with a main shaft running to the roof of the cupola.

Sharples Tubular SEPARATORS

THE ONLY CONVENIENT KIND

No other occupies so little space, sits so firmly, has waist low can, enclosed self-oiling gears, light bowl without inside parts. Tubulars hold present world's record for clean skimming and perfect cream. Write for Catalog M-193.
 Canadian Transfer Points: Winnipeg, Toronto, Quebec, St. John, N. B., Calgary, Alberta. Address
The Sharples Co., Chicago, Ill. **P. M. Sharples** West Chester, Pa.

GRAND TRUNK RAILWAY SYSTEM
Special One-Way Excursions
 FROM LONDON TO

Billings, Mont.	\$34.25
Colorado Springs, Denver, Col.	38.75
Helena, Butte, Mont.; Ogden, Salt Lake City, Utah.	39.25
Nelson, Rossland, B. C.; Spokane, Wash.	39.75
Portland, Ore.; Seattle, Wash.; Vancouver, Victoria, B. C.	42.25
San Francisco, Cal.	42.25

Proportionately low rates to other points.
 Tickets on sale from March 1st to May 15, '05
 For tickets, and full information call on Agents Grand Trunk Railway System.

CANCER
 R. D. Evans, discoverer of the famous Cancer Cure, requests any one suffering with cancer to write him. Two days treatment will cure any cancer, external or internal. No charge until cured.
R. D. EVANS, Brandon, Man. O.

HOW OFTEN TO ADMINISTER.
 In your issue of March 2nd, page 294, you have an article on fitting work horses, which I was pleased with, but you did not state how often to feed the mixture, merely the amount to give at each feed. Kindly answer through the "Farmer's Advocate." J. B. W.

Ans.—Two or three times a day; twice in ordinary cases.

UNTHRIFTY PIG—FENCING.
 1. I have three pigs three months old. They are scurvy, and when resting, grind their teeth. They do not grow very well. They are kept in a warm place, and have good feed. What is the cause?
 2. What is the best and cheapest fence to enclose a pig pasture?
 SUBSCRIBER.

Ans.—1. This is probably the effect of indigestion. We would advise changing their feed, or giving their grain or mill-feed dry, and their drink in a separate trough.
 2. We would say woven-wire stapled to posts. It can be bought, or home woven any desired height.

SUMMER FEED FOR CALVES.
 What would make good pasture for calves that would be getting skim milk? I have three plots, 1, 2 and 3 acre, respectively, handy to stable, fall plowed and rich. How would rape do? I will have about 30 calves, some four months old by the first of May.
 SUBSCRIBER.

Ans.—Don't pasture them at all. Keep them in a cool, dry, well-ventilated stable (basement preferred), and feed them clover, or even timothy hay, with only a little green feed and a light ration of oats and bran, until along towards fall. Green feed, like rape, fed with skim milk, would give no end of trouble with scours, to say nothing of flies and heat. Rape would be all right for fall pasture, after milk is withheld. For early pasture tares would probably be as good as anything.

SPAYING HEIFER WATER FROM CREEK.
 1. Describe the proper time and process of spaying heifer.
 2. In taking water from a creek, 30 rods from barn and 40 feet lower, what would you advocate as the best and most economical power of forcing or drawing it? Also what size of piping is best?
 A SUBSCRIBER.

Ans.—1. This operation should be done when the heifer is a yearling, in mild, spring weather. A competent veterinary surgeon, who has operated before, should be called in, as experience and proper instruments are required for the operation.
 2. Put pumping windmill near the creek; cover intake pipe with strainer; if sand or gravel bottom, better keep pipe off bottom; use a force pump, and erect a tank at barn or where water is to be used. For piping, the pumping would be easier done with 1 1/2 inch pipe, though inch pipe would cost less.
 [Note.—Another question received regarding water supply and piping has been mislaid. Will the enquirer kindly send in the question again?—Ed.]

Classik Galt Ceilings

give a genuine air of refinement and luxuriousness to any room.
 They are made in all the Oriental, Classik, Colonial and modern styles, and when used in conjunction with Classik Cornices and Wall Designs, they give a charming effect—thoroughly artistic and strictly in harmony from top to bottom.
 This 20th Century finish provides an artistic embellishment, absolutely fireproof, as well as strictly sanitary.
 The Classik Galt will tell you a lot more in this connection if you ask them.
GALT ART METAL CO., Limited, GALT, ONT.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Worn Out? Run Down?

I will gladly give you a full dollar's worth of my remedy to test.

Nothing to deposit—Nothing to promise—
The dollar bottle is free—Your Druggist,
on my order, will hand you a full
dollar's worth and send
me the bill.

Why do work and worry and excess and strain and over-indulgence break down constitutions and make men and women worn-out and run-down and restless and sleepless and discouraged and morose? Because they weaken the tiny, tender nerves on which life itself depends.

Not the nerves you ordinarily think about—not the nerves that govern your movements and your thoughts.

But the automatic nerves that, unguided and unknown, night and day, keep your heart in motion—control the digestive apparatus—regulate your liver—operate your kidneys.

These are the nerves that worry wears out and work breaks down.

It does no good to treat the ailing organ—the irregular heart—the disordered liver—the rebellious stomach—the deranged kidneys. They are not to blame. But go back to the nerves that control them. There you will find the seat of the trouble.

It does no good to take stimulants and narcotics, for theirs, at best, is but a temporary effect which merely postpones the final day of reckoning.

There is nothing new about this—nothing any physician would dispute. But it remained for Dr. Shoop to apply this knowledge—to put it to practical use.

Dr. Shoop's Restorative is the result of a quarter century of endeavor along this very line. It does not dose the organ to deaden the pain—but it does go at once to the nerve—the inside nerve—the power nerve—and builds it up, and strengthens it and makes it well. That is the end of all vital troubles. That is the end of sleepless nights and restless days. That is the end of "nervousness," the end of brain fog and fatigue.

If you are worn out, run down and have never tried my remedy, merely write and ask. I will send you an order on your druggist which he will accept as gladly as he would a dollar. He will hand you from his shelves a standard-sized bottle of my prescription, and he will send the bill to me. This offer is made only to strangers to my remedy. Those who have once used the Restorative do not need this evidence. There are no conditions—no requirements. It is open and frank and fair. It is the supreme test of my limitless belief. All that I ask you to do is to write—write to-day.

For a free order for a full dollar bottle you must address Dr. Shoop, Box 52, Racine, Wis. State which book you want.

- Book 1 on Dyspepsia.
- Book 2 on the Heart.
- Book 3 on the Kidneys.
- Book 4 for Women.
- Book 5 for Men.
- Book 6 on Rheumatism.

Mild cases are often cured by a single bottle. For sale at forty thousand drug stores.

Dr. Shoop's Restorative

CURES SCIATICA and RHEUMATISM
WESTERN RHEUMATIC POWDER
AND BLOOD PURIFIER.

New vegetable remedy, giving wonderful results. Send for one box, two weeks' treatment, and know that it will benefit you. We guarantee it. \$1 a box, or six for \$5, prepaid to any place in Canada. Sold only direct to patients. Send to us.
RHEUMATIC REMEDY CO., Peterboro, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

ROT-PROOF POTATOES—PRUNING, GRAFTING AND MANURING.

1. What is the best kind of potatoes to stand the blight and rot?

2. When is the proper time to prune apple trees?

3. Can a man, without experience, graft apple trees successfully, and, if so, please tell how?

4. Is manure that is drawn out in winter and spread on the snow as much benefit to the soil as what is drawn in spring and plowed in?

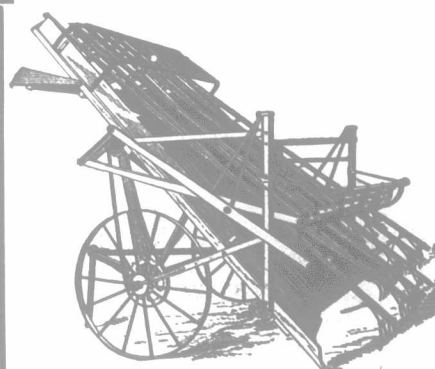
Ans.—1. See page 170, Feb. 2nd, "Farmer's Advocate," and page 229, Feb. 16th.

2. Our best orchardists say, "prune when your knife is sharp"; that is, remove a branch or twig whenever it is discovered to be necessary. When this has been neglected, and it is decided to do considerable pruning, most orchardists recommend doing it when the wood is dormant, but some consider the month of June the best time. The objection to the latter season is that in climbing about the trees, the bark is easily broken or started from the wood. This, however, may be avoided by wearing rubber shoes. All things considered, we should favor pruning in the winter or very early spring, before the sap has begun to move.

3. Yes; provided he is handy with a knife and careful in making joints. There are several methods of grafting, but the simplest and most easily practiced is what is known as cleft grafting. For this purpose, scions are cut from healthy wood of the past season's growth late in the fall or early spring. These are made about ten inches long, having two to four buds. The large end is made wedge-shaped, having a bud on one side just above the top of the wedge. A branch about an inch thick is cut off about a foot or more from its juncture with the trunk or larger branch, is split fairly in the middle, the crack held open and a wedge-shaped scion inserted, so that the inner edge of the bark of the scion and of stem are in a direct line, and the bud just above the juncture on the outside. Another scion is inserted on the other side, and the whole wound closely covered with grafting wax, extending down the crack in the stem. Care is required to have the bevel on the scion flat, so that the pressure falls evenly on it, and it might be well to slant it a little outwards so that the cambium layer is sure to be in contact with that of the stem at some point. Wax may be made of resin, four parts (by weight); beeswax, two parts; tallow, one part. Melt together, and pour into cold water; then, grease the hands and pull wax until it is nearly white. Spread this over the wound with the hands, working it over smoothly. With a little practice, one soon becomes expert at the work.

4. Yes, unless land is hilly, and there is a danger of it washing away in the spring. Surface manuring has grown in favor in recent years, and is very generally practiced. When applied in the spring on most soils, the plowing should be shallow, and, indeed, if the manure is short, and can be worked in with cultivator or disk harrow, it will be better to do so.

HAY LOADER TALK No. 2 BY THE DAIN MAN.



In this we want to point a new feature in Hay Loaders.

That is our HINGED TONGUE.

This is on the style of a wagon tongue. You know what that means when used on a Loader.

That you do not have to lift any weight in attaching it to the wagon.

Any boy ten years old can do the job. One of our customers tells us that last year two boys of 12 years put on a load in a few minutes.

They couldn't have done it with the old return-carrier machine.

Why?

Why, because they wouldn't have been able to attach it to the wagon, for one thing.

The return carrier would have drawn the hay back off the wagon faster than the boys could have taken care of it.

The DAIN LOADER pushed the hay right up on the load, and those boys might have been buried in the load, but they kept out of the way.

The DAIN will save you men and time and be a mighty profitable investment.

No back-breaking job this haying, if you have a DAIN LOADER.

We still have a supply of circulars. Send for one.

They cost you nothing but the asking. Our address is still,

Dain Manufacturing Co.,
PRESTON, ONT.



We still have a supply of circulars. Send for one.

They cost you nothing but the asking. Our address is still,

Dain Manufacturing Co.,
PRESTON, ONT.

Dunlop Book FOR HORSEMEN

Free to any address in Canada. 64 pages with charts and drawings. Valuable information about lame horses.

Dunlop Tire Co., Limited, Toronto.

Advertise in the Advocate
AND GET BEST RESULTS.

BASEMENT FOR HORSES AND CATTLE.

Will you please send me a plan for basement stables, barn 36 x 64 feet? Is barn wide enough to stand horses and cows facing each other? A. G.

Ans.—The width of 36 feet would be sufficient to allow of two rows of stock facing each other, but the arrangement is rather objectionable, unless the horse stable is closely partitioned from the cattle atmosphere. A separate drive-house and shed is advisable; if that is not feasible, an end of the basement might be partitioned off. See plans in this and other issues, and note the word to inquirers on the Farm page.

DAMPNESS ON WALLS—DEAD-AIR SPACE.

Four years ago I built a cow stable, 37 x 27 x 7 feet, floor concrete over-laid with boards where the cows stand. Sides and end of building are made of two-inch grooved-and-tongued spruce, ceiling of same material, 1 1/2 inches thick. When cold weather commences, the wood is so dry that the planks get covered with frost, and then the heat of the building causes it to melt, keeping the walls wet. I have good ventilation from ceiling, and would like to know some way of having it nice and dry. I am thinking of putting another inch of grooved-and-tongued boards with tar paper on the outside, or tinning it on the outside, for the lumber is so costly to buy now that tinning would cost less. It is impossible to line it inside, for there are so many braces, and the wood is not all an even size. I have lots of light in stable—five large windows. Would you please let me know what would be the best thing to do? H. H.

Ans.—The frost is caused by the damp warm air of the stable being chilled by contact with the cold wall, on which the moisture is precipitated and congealed. The chances are your ventilation is not good, as you say nothing about provision for admitting fresh air. Without this the fumes can carry off no foul air worth mentioning. See ventilation queries in recent issues. The two essentials of a cattle stable are continuous change of air, without draft, and a wall which will not cause much loss of heat by conduction. You made a mistake by using two-inch lumber. Two layers of one-inch stuff, with a couple inches of dead-air space between would have given you far better insulation. Now, the building is completed, perhaps the best thing you can do is to nail upright studding on the outside of the plank, put on a double layer of building paper and weather-board it. If the tongued-and-grooved siding is not perfectly tight, put a layer of paper over it before nailing on the studding. If well put on, this will give you a number of dead-air spaces the height of the building and the width of the distance between studs, and provide very effective insulation. The danger of drafts of air up and down these dead-air spaces will be lessened by dividing them with short horizontal pieces of studding, over which the paper should fit closely. A dead-air space to be at all effective, must be completely shut off from outside or inside air (especially outside). The smaller the subdivisions of the space, the less the area affected by a crack or hole.

9.10
Per
Acre

LAST MOUNTAIN VALLEY

FINEST WHEAT LAND IN NORTH-EASTERN ASSINIBOIA

9.10
Per
Acre

Excellent Water.

Fertile Soil.

Bountiful Crops.

Average Crop for 5 years

25 bushels per acre.

Cattle run out all winter.



WM. PEARSON & CO.,

IN TOWNSHIP 21, RANGE 21.

Winnipeg, Man.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



SUMMER HILL.
The Farm Home of D. C. Flatt & Son, Millgrove, Ont.

It is a beautiful and interesting drive of six miles from the City of Hamilton to D. C. Flatt & Son's Summer Hill Stock Farm, the home of the celebrated Summer Hill herd of Large English Yorkshires.

The foundation of this great herd was laid by purchasing the choicest animals that could be obtained in England and Scotland from such noted breeders as the Earl of Roseberry, P. L. Mills, D. R. Daybell, Sir Gilbert Grennal, John Barrow, Frank Almond, T. J. Davis and A. Armitage.

During the last five years Messrs. D. C. Flatt & Son have imported over 600 of the choicest Large English Yorkshires that money and thorough knowledge of the business combined with good judgment, could possibly secure. This is a greater number than all other breeders combined have imported in twenty years.



SUMMER HILL BARN.
On the farm of D. C. Flatt & Son, Millgrove, Ont.

The object in view at Summer Hill has always been to produce a fast-growing, early-maturing strain, which would attain a maximum size and weight with a minimum of offal, and it is noteworthy that they have succeeded in so far that all Yorkshires of Summer Hill breeding are particularly good in their hams, strong in bone, deep in sides, with plenty of length.

The whole herd is kept in strictly natural breeding condition, and pigs are never forced or "made up" for sale.

The litter average of the herd is eleven, which certainly proves them to be of a prolific strain.

Messrs. D. C. Flatt & Son have exhibited Summer Hill Yorkshires at all the leading fairs of Canada and the United States for the last five years, and have succeeded in winning more first prizes than all other breeders combined. They bred and exhibited the Champion boar at the Pan-American, Chicago International, Toronto and London (see cut

"Summer Hill Victor"). They afterwards sold this boar for \$700.00, which is the highest price that has ever been paid for a Canadian-bred hog. They also bred and fed the first-prize bacon hog in the dressed-carcass competition at the Chicago International, in a class of one hundred entries.

For three years in succession they have won the Silver Medal at Toronto for best male and female; also at Toronto, in 1903, in competition with all breeds, the Summer Hill herd won first and second in the bacon classes and Grand Sweepstakes over all breeds, a feat that has never been accomplished by any other herd.

This year (1904) at Toronto, the Summer Hill herd of Yorkshires won every first prize but one.

Summer Hill holds the Public Sale Record of the World for Yorkshires: the average price obtained for seventy-two head at a public sale was \$116.00.



SUMMER HILL VICTOR.
Bred and Exhibited by D. C. Flatt & Son, Millgrove, Ont.

As to breeds, and breeding and feeding, we give the opinion of Messrs. D. C. Flatt & Son in their own words, as follows:

To intending breeders and feeders, we would say: The first thing to do is to decide what breed will be the most profitable to you and the most likely to produce the best Wiltshire side for the English market. Our leading packing houses in Canada have no hesitancy in saying that the Large White Yorkshires give them the largest percentage of what the English market demands. As breeders of Large Whites we may be prejudiced in their favor, but in our opinion no other breed can compare with them for fertility, quickness of growth and early maturity. We have not a word to say against other breeds, possibly all have their good points, but for a generally useful pig that can be turned into money at any age, we venture to affirm that no breed can compare, as far as profit goes, with the Improved Large English Yorkshires.

We are using Herbageum continually, and have used it for a number of years. It was fed regularly to the Champion boar, Summer Hill Victor, and the more we use of it the more firmly are we convinced that every breeder and feeder of hogs should use it. It keeps the hogs on their feed by assisting digestion, which assistance is necessary when fitting for show purposes or feeding for market.

We have no interest in any Stock Food Company, and are not prejudiced for or against any of the preparations, in any way, but we have tested a number of them, and for permanent results and regular feeding we are convinced that Herbageum is the most economical and valuable, and that it is absolutely safe for regular and continual feeding.

Our farm is six miles from the City of Hamilton. We invite those who are interested in the production of the ideal bacon hog to visit Summer Hill and inspect our herd.

D. C. FLATT & SON.

Millgrove, Ont., Aug. 15th, 1904.

In answering the advertisement on this page, kindly mention the FARMER'S ADVOCATE.

SEEDS-WHOLESALE



RELIABLE SEEDS
All prices are cut low. Send money with order by letter. Seeds are sent by Parcel Post—We pay the Postage. Large buyers should write for Catalogue.

COLLECTION - SPECIAL
41 Packets Seeds Postpaid for 50c.
25 Varieties Flowers. 16 Vegetables, Our Selection.

Vegetable Seeds			Beans			Beets			Sugar Beet			Mangel Beet			Cabbage			Carrots			Cauliflower			Celery			Citron			Corn			Cucumber																									
Lettuce	4 Lb.	Oz.	Golden Wax	Qt.	Pt.	4 Pt.	Early Eclipse	Lb.	4 Lb.	3 Lbs.	Lb.	4 Lb.	Danish Giant	3 Lbs.	Lb.	4 Lb.	Early Winningstadt	4 Lb.	Oz.	Early Oxheart	Lb.	4 Lb.	Early Snowball (True)	Oz.	4 Oz.	Golden Paris	4 Lb.	Oz.	Preserving	4 Lb.	Oz.	First of All	Qt.	Pt.	4 Pt.	Chicago Pickling	4 Lb.	Oz.																				
Iceberg	25	8	Early Valentine	30	16	9	Egyptian Red	48	12	7	Sugar Beet Mangel	63	24	8	Early Summer	39	11	Chantenay	65	18	6	Early Paris	48	27	Dausers Long	60	17	6	White Plume	60	18	White Globe	32	17	9	Imp. White Spin	28	8	Extra Early Milan	35	29	18	Imp. Long Green	28	8	White Tip	40	12	Grey Stone	28	16	10						

ORDERS FILLED PROMPTLY. ALL SEEDS POSTPAID.
SMITH SISTERS,
Box No. 17. [Near Toronto.] SWANSEA, ONTARIO.

STRONG FOALS GUARANTEED
To those who use my
BROOD MARE SPECIAL
Read what my customers of a number of years' standing say:
I have a mare that I have bred since she was three years old, and she lost the first three foals, only one living till it was ten days old. I have used WILHELM'S BROOD MARE SPECIAL for three years, and have colts now rising three, two and one year old, and would not do without it at twice the price. I can recommend it to all breeders that have trouble that way.
GEO. J. STUECK (Postmaster), Hampstead, Ont.

I have been breeding mares for the last five years. I had four different mares and could not raise a colt. Last spring I was advised to use WILHELM'S BROOD MARE SPECIAL, and, after using it, I raised the first colt out of nine. I have no doubt but that I would have lost it if I had not used it. I would not try to raise colts without it, as the others were all foaled right and lived a few days. Can recommend it to all breeders.
NOAH M. CRESSMAN, New Hamburg, Ont.

I have many more testimonials like these, nearly every breeder in this part of the country uses it. Send for it now. Don't wait till you have a colt to lit up and lose, but send at once for my **BROOD MARE SPECIAL**. If you have had trouble with weakly foal, it will ensure you a good, strong, healthy foal. Price, \$1.50 per package. Put up by
J. WILHELM, V. S., o SHAKESPEARE, ONT.

MAKE MONEY AT HOME
by taking subscriptions for the FARMER'S ADVOCATE. For terms, etc., apply at once to
THE WILLIAM WELD CO., LTD., LONDON, ONTARIO.
In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

QUESTIONS AND ANSWERS. Miscellaneous.

GREEN CORN AND STRAW IN MOW.
Would you tell me how green corn and straw would do cut up together, and piled in a mow? If it would do, tell me how to mix it?
CANADIAN FARMER.

Ans.—Don't; it would be sure to heat and mould.

ALFALFA ROOTS AND DRAINS.
Will the roots of alfalfa interfere with tile drains?
Essex Co., Ont.

Ans.—While we have not yet heard any well authenticated cases of tile drains being obstructed with alfalfa roots, instances are on record where fibrous roots of mangels have done so, and it seems quite possible that such deep penetrating root systems as that of alfalfa might also give trouble. Has any reader an experience along this line to relate?
SUBSCRIBER.

CRAVING APPETITE.
Our cows during last summer had a great craving for lumber, and we gave them Kow Kure mixed with meal, but it did not help them. Then, this winter we gave them small doses of phosphate of lime, but still when let out of stable they will hunt round for a board to chew. They are well fed with roots and meal, and given salt. Can you tell me what they require?
D. A. L.

Ans.—This appears to be a craving for bitter tonics and earthy salts they do not find in the feed given. Have your druggist mix for you carbonate of lime in powder, one pound; powdered charcoal, one-half pound; powdered gentian, one pound. To this add two pounds of salt, and mix well with it. Every morning before putting in your feed of meal, place a tablespoonful of this in the feed box and put the meal feed on it.

HORSE REGISTRY QUERIES.

- Why is the Clydesdale horse more popular in Canada than the English Shire?
- Has the Clydesdale a better quality of bone and hoof, and does he move better on pavement than the Shire?
- How many volumes of the Canadian Clydesdale Studbook have been published since its organization, and how many of the Shire?
- In what year was the Canadian Clydesdale Horse Breeders' Association organized; in what year the Shire?
- Can a volume of either breed of horses be obtained by a non-member of the associations by paying the price of same?
- What is meant by nationalizing the records? A question taken up by the Shire Horse Association at their annual meeting in February, 1905.

SUBSCRIBER.
Ans.—1. Probably because more good Clydesdales have been imported to Canada than of Shires.
2. Perhaps a larger percentage of them have better bone and feet, but many of the best Shires are by no means faulty in these respects. Prices of the best rule so high in England that importers see no likelihood of profit in bringing them out for sale.
3. Twelve of the former, and one of the latter. The second will probably be issued soon.
4. We have no data as to organization, but the preface to Volume I, which was issued in 1886, states that it was issued under the joint auspices of the Clydesdale Association of Canada and the Agriculture and Arts Association of Ontario. Vol. 1 of the Shire Studbook was issued in 1901, by the Canadian Shire Horse Association.
5. Yes; we think so. Write Henry Wade, Parliament Buildings, Toronto, Secretary.
6. At a convention of representatives of Canadian breed associations, held in March, 1904, the delegates present agreed that there should be only one record for each breed recognized and granted a charter under the act of Parliament in that behalf. This action has been endorsed by the membership of nearly all the breed associations at their annual meetings, and their records are being removed to Ottawa, under the Department of Agriculture, and in the hands of registrars approved and elected by the said associations.

Best Rule of Health

AND HOW YOU ARE AIDED IN CARRYING IT OUT BY

DR. CHASE'S KIDNEY-LIVER PILLS

"A movement of the bowels every day."
This is the fundamental rule of health. The one point on which doctors are unanimous. But what causes the bowels to become constipated? The inactivity of the liver. Bile is nature's own cathartic and so long as the liver is active in its work of filtering bile from the blood and passing it into the intestines, there is no trouble from constipated bowels. Dr. Chase's Kidney-Liver Pills cure constipation by setting the liver right. This is the only means by which the bowels can be regulated. Salts and castor oil will effect a motion of the bowels, but, once the effects of the dose passes off, you will be more constipated than ever. They fail to set the liver right. By regulating the liver by use of Dr. Chase's Kidney-Liver Pills, you ensure a healthful action of the bowels and so prevent and cure scores of ills, such as indigestion, biliousness, constipation, kidney disorders, colds and contagious diseases. Dr. Chase's Kidney-Liver Pills, one pill a dose, 25 cents a box, at all dealers, or Edmanson, Bates & Co., Toronto. The portrait and signature of Dr. A. W. Chase, the famous recipe-book author, are on every box.

"May the saints preserve ye," said an old woman in Washington, who had been given a quarter by Congressman Cooper, of Wisconsin, "an' may every hair o' your head be a candle to light your way to glory!"
"Well, it won't be such a torchlight procession as that," Mr. Cooper answered, as a gust of wind took of his hat, showing a shiny crown.

The German banker of Church Street loves to tell the story of the two Irishmen who discussed the "nationality of the American States."
Said Pat—Faith an' be jabbers, if this grate country ain't overrun wid th' Irish, an' yit out o' thirty-two States in th' Union not wan has an Irish name.
"Sure an' yer wrong," replied Mike. "What's the matter wid O'Regon?"

THE CAUSE OF WOMAN'S TROUBLES

Is Diseased Kidneys, and the Cure is Dodd's Kidney Pills.

Wonderful Cure of Mrs. James Kinsella, Who Slept in a Chair for Two Summers—What She Says of It.
St. Malachie, Que., March 20th.—(Special).—A cure of great interest to women has attracted the attention of those interested in medicinal matters in this neighborhood. Mrs. Jas. Kinsella, wife of a well-known citizen, had suffered from a complication of troubles for about two years. She had a pain in the right hip, in the back and was obliged to pass water every fifteen minutes in a burning, itching sort of way. She could not sleep at night and had to sit up in a chair for two summers. Dodd's Kidney Pills cured her. Mrs. Kinsella speaking of her cure says: "After the first box of Dodd's Kidney Pills I felt much better. Then I got more and they did me a world of good. I have never slept in the chair since I used Dodd's Kidney Pills." Woman's health depends on her kidneys. Nine-tenths of the so-called female complaints are caused by uric acid in the blood. Cure your Kidneys with Dodd's Kidney Pills, and you can have no uric acid in the blood.



London Fence

THOR:
Thy judgment and thy wisdom I commend, thou tiller of the soil!
For market bound with golden grain
Wherewith to purchase LONDON Spring
Steel Wire—coiled, not kinked
Thou'lt easily procure full double length,
strength and weight
Thou couldst of flimsy, ready-woven—
kinked—not coiled.

Yes, yes! No longer be beguiled with
fairy tales of saving time,
By slap-dash, ready-woven methods.
If time thou'dst save, rest well assured,
'Twill be with LONDON Fence.
Once rightly finished, it no further care
requires,
And 'twill outlast the average life of man.

**London Fence
Machine Co., Limited.
LONDON AND CLEVELAND.**

Western Agents.—A. E. Hinds & Co., Winnipeg,
Quebec and East. Ont.—Pheps & Smith, Montreal.
Maritime Agent.—J. W. Boulter, Summerside P.E.I.

LAFAYETTE STOCK FARM

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



and the largest importers in the
world of
**GERMAN COACH, PERCHERON
and BELGIAN STALLIONS,**

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

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

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

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

AFTER 50 YEARS

As used in the
Royal Stables.



Yes, after 50 years' use
STEVENS' OINTMENT

As used in the Royal Stables, is still
preferred by leading veterinary sur-
geons, horse trainers, and those who
understand horses, and a good thing
for curing

**SPAVIN, SPLINT,
RINGBONE, CURB,**

and all enlargements in horses and
cattle.

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

No
Blemish.
Directness
with
every Box.

50 Years'
Success!!

Smith & Richardson's

CLYDESDALES

COLUMBUS, - ONTARIO.

We are now offering for sale the finest
lot we ever imported at reasonable
prices. Amongst them, Baron Gartley,
winner of 1st prize and sweepstakes.
Stations—Oshawa and Brooklin,
G. T. R. Myrtle, C. P. R.

Long-distance Telephone at Residence.

Advertise in the Farmer's Advocate.

In answering any advertisement on this page, kindly mention the *FARMER'S ADVOCATE*

GOSSIP

The Cochrane ranch, established many
years ago in Southern Alberta by the
late Hon. M. H. Cochrane, of Compton,
Que., consisting of 66,500 acres, has been
sold to a syndicate of American capi-
talists for \$400,000. The intention is
to colonize the property, selling it for
farming purposes.

CAUSTIC BALSAM FOR SPAVIN AND RINGBONE.

Casselman, Ont., Feb. 6, 1905.
The Lawrence-Williams Co., Cleveland, O.:
I have used your Gombault's Caustic
Balsam for spavin, ringbone and a good
many other ailments, and found it very
good for all. ALF. LALONDE.

Mr. E. C. Attrill, Goderich, Ont.,
wishes to report in the "Farmer's Advo-
cate" the following sales from his Ridge-
wood Park Herd: "The fine yearling
Shire stallion colt, Ridgewood Marquis,
by Imp. Desford Marquis, to a company
in Manitoba; to Mr. J. W. Salkeld, of
Dongola, N.-W. T., the fine, sappy year-
ling Shorthorn bull, Velvet Archer, by
Nonpareil Archer (imp.), who at present
heads Mr. W. D. Flatt's renowned Trout
Creek Herd. Mr. Salkeld is to be com-
mended for his enterprise in taking this
splendid bull to the West, where his big,
burly, yet wonderfully smooth form is
bound to draw the eye of every lover of
good cattle. His dam, Veronica (imp.),
is a great cow for both milk and beef,
and was sired by Marksman, a straight
Cruikshank. The beautiful red heifer
calf, Sea Shell 2nd (imp. in dam), the
property of Mrs. E. Marr, Goderich, to
Mr. W. D. Flatt, of Hamilton, in whose
hands she will likely be heard of again."

Messrs. Alex. Hume & Co., Menie,
Ont., Write: "Our herd of Ayrshires,
which numbers 58 head, has come through
the winter in good shape. The cows are
making a wonderful show of udders, and
calves are coming choice and strong. We
have a bull calf or two that perhaps will
not make sure winners for Toronto, but
are good calves and from heavy milkers,
sired by Prince of Barcheskie (imp. in
dam), which we will sell very cheap to
dairymen or factory men. We have a
number of heifers, nearly a year old, and
could spare a few. The yearling bulls
we offer are suitable to head either pure-
bred or dairy herds, and we are offering
them at prices that any one can buy.
Thanks to the advertisement in your val-
uable paper, we have made the follow-
ing sales—partial list:

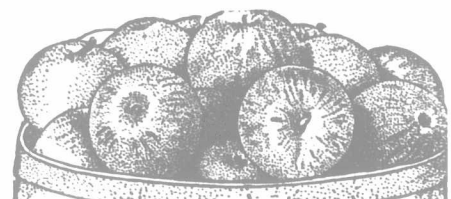
"To Chas. Hendry, Campbellford, our
aged stock bull, Prince of Barcheskie imp.
in dam), which there are few better in Can-
ada as a getter of useful and show stock;
the young bulls, Lord Dundonald, to Mr.
Peoples, Blairton; Prince of Menie to F.
W. Taylor, Welman's Corners; Silver
Prince of Menie to S. Dracup, Welman's
Corners; the cow Diamond Princess to T.
J. Horkins, Campbellford."

TRADE TOPICS.

MOORE BROS., practicing veterinary
surgeons and manufacturers of medicines
for the diseases of domestic animals, Al-
bany, N. Y., who advertise their medi-
cines for prevention of milk fever, garget,
retention of afterbirth, etc., quote the
following testimonial:

Dear Sirs,—I had from you last year a
treatment for heifer I had difficulty in
holding to sire. It was very satisfac-
tory. I now have a two-year-old, I can-
not get to hold. Enclosed find money-
order, and send me treatment by mail.
Yours respectfully,
John Marriott,
Cropwell, Butler, Notts Co., England.

THE MANURE SPREADER has come
to stay as one of the essentials to suc-
cessful farming. Heavy manuring is not
so important as an even distribution,
and barnyard manure can, by the use of
the manure spreader, be made to cover
twice as much ground with very much bet-
ter results than by the old plan of spread-
ing by hand, to say nothing of the saving
of labor and time. Top-dressing and
surface cultivation is the secret of suc-
cess in crop-growing. The Paris Plow
Company, of Paris, Ontario, are manu-
facturing the "Success" manure spreader,
the claims of which to public favor
are well set forth in their illustrated ad-
vertisement in this paper. Look it up,
and write them for price and particulars.




Better Fruits—Better Profits

Better peaches, apples, pears and
berries are produced when Potash
is liberally applied to the soil. To
insure a full crop, of choicest quality,
use a fertilizer containing not less
than 10 per cent. actual

Potash

Send for our practical books of information;
they are not advertising pamphlets, booming
special fertilizers, but are authoritative
treatises. Sent free for the asking.

GERMAN KALI WORKS
93 Nassau St.,
New York.



Lump Jaw

Save the animal—save your
herd—cure every case of Lump Jaw. The
disease is fatal in time, and it spreads.
Only one way to cure it—use
Fleming's Lump Jaw Cure

Not trouble—rub it on. No risk—your money
back if it ever fails. Used for seven years
by nearly all the big stockmen. Free
illustrated book on Lump Jaw and other
diseases and blemishes of cattle and horses.
Write for it today.

FLEMING BROS., Chemists,
45 Front Street, West, Toronto, Can.

Clydes Hackneys

FOR SALE: Nine choice
imported

Clydesdale Stallions

By such noted sires as Ha-
watha, Prince of Kyle, Orna-
ment, Ascot and Sir Hugo.
Also six choice imported
HACKNEYS, by the Eng-
lish champion, Garton Duke
of Connaught, and others.
All are rare good individuals.
Determined to reduce stock,
will make prices and terms
to suit customers. A rare
chance for a good stallion at a right price. Mill-
brook is on G. T. R., 18 miles north of Port
Hope. Call or write.

T. H. HASSARD, MILLBROOK, ONT.

Clydesdale Stallions and Fillies.

Imported and Canadian-bred. For sale: Two
Canadian-bred stallions, rising 3 years, from
imp. sire and dams. Also 5 **SHORTBORN**
Cows and Heifers for sale. Reasonable prices.
For particulars write to

JAS. W. INNES,
Cityview Farm, Woodstock, Ont.

Registered Clydesdale Stallions FOR SALE.

For price and particulars write to

R. & C. PALING,
Oaledonia Stn. & Tel., North Simcoe

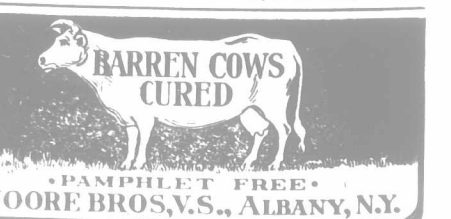
DEATH TO HEAVES

NEWTON'S Heave, Cough, Dis-
temper and Indigestion Cure.
A veterinary specific for wind,
throat and stomach troubles.
Strongly recommended. \$1.00 per
case, mail or express paid.
Newton Remedy Co.,
Toledo, Ohio. Your druggist
has it or we get it from any wholesale druggist.

Asthma

Cured to Stay Cured.

Attacks stopped permanently. Cause re-
moved. Breathing organs and nervous system
restored. Symptoms never return. No medi-
cines needed afterwards. 21 years of success
treating Asthma and Hay Fever. 58,000
patients. Book 57F Free. Very interesting.
Write P. HAROLD HAYES, Buffalo, N. Y.



**BARREN COWS
CURED**

PAMPHLET FREE.
MOORE BROS., V.S., ALBANY, N.Y.

TRUMANS' CHAMPION STUD

READ OUR UNBEATEN RECORD AT ST. LOUIS WORLD'S FAIR:

Premier Championship.
 Reserve Grand Championships.
 Three Reserve Championships.
 Six \$100 Shire Horse Ass'n Gold Medals.
 Six Second Premiums.
 Three Fourth Premiums.

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

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

Trumans' Pioneer Stud Farm

BUSHNELL, ILL., U.S.A.

Address: H. W. TRUMAN, Manager, London, Ont., Branch.
 J. H. TRUMAN, Whittlesea, England.

Imported Clyde, Shire and Hackney STALLIONS.



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

King of Fashion (12195), by Baron's Pride (9122).
 Prince of Kyle (7155).
 Harbling Harold (15649), by Harold (4629).
 Gunthorpe Advance (13136), by Bar None (2388).

Write—

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

ALEX. GALBRAITH & SON,

JANESVILLE, WISCONSIN.

have on hand a magnificent collection of

CLYDESDALES

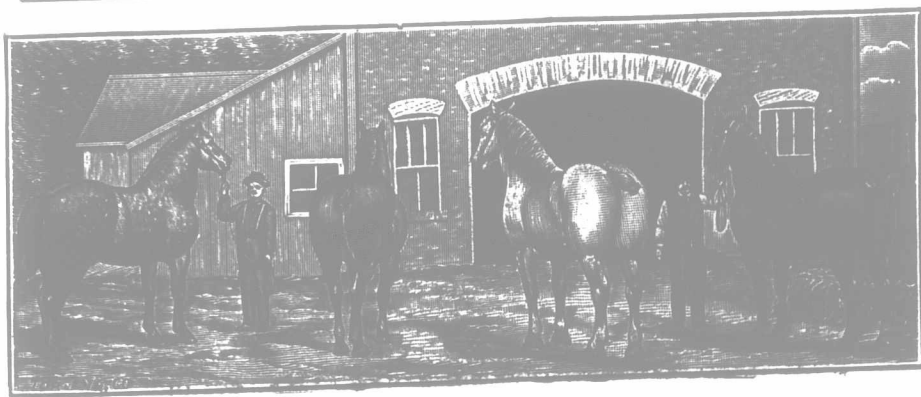
Also a few choice

Suffolks,
 Percherons,
 Belgians
 AND
 Hackneys

Prices, terms and guarantee to suit the buyer.



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



20 PERCHERONS 20

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

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

GOSSIP.

At the Port Perry combination auction sale of Shorthorns, on March 14th, the highest price obtained for bulls was \$155 for Hillview Hero, contributed by Jno. E. Disney, Greenwood, and purchased by Hugh Gibson, Newcastle. The next highest was \$105 for King Quality, contributed by Alex. Jeffrey, Whitby, and purchased by Dennis White, Garden Hill. The highest price for a female was \$125 for Minnie Novar, contributed by J. E. Disney and purchased by Jas. Rowand, Sisera.

THE CARGILL SHORTHORNS.

Messrs. H. Cargill & Son, of Cargill, Ont., write: "We have been complimented a number of times this winter upon the excellent condition in which our herd of Shorthorns is kept, and we naturally feel somewhat pleased thereof. We like to have people come to see us, and look over the cattle, even when only on a tour of inspection, as we feel proud of them, and find it no trouble to show our goods. Have had a very steady and somewhat severe winter, though not to be compared with the previous one. Sales have been a bit quiet, though we have no reason to complain, as anything we have to offer is gaining in value every day as they grow older. We have only four bulls of an age suitable for service, two of which are right good ones, fit to go anywhere. The heifers we are offering are an exceptionally good lot; some winners among them, and they are just in nice condition to go on with and prepare for the fall campaign. We have something over fifty calves arrived since September last, and more still to come. From their appearance, we believe we have found the right bulls to nick with our cows, as the calves are an excellent lot. The bulls referred to are Golden Drop Victor (76780), Lord Mistletoe (81522), Merchantman (81686), Diamond Rex (imp. in dam). The first three, bred by Wm. Duthie, of Collynie, are of Golden Drop and Missie families, and were sired by the great bulls, Nonpareil Victor (Mr. Bothwell's sire of winners), and Lovat Champion, both of which are known throughout this continent. The latter, Diamond Rex, bred by W. S. Marr, of Uppermill, was sired by Bapton Diamond, the celebrated bull imported by Mr. Hanna, of Ohio, to head his herd. His dam was Roan Lady 37th, bred by Mr. Marr also, so that this bull combines all the blood of the family which made the highest average at Mr. Marr's last annual bull sale. Judging from the increase in the number of inquiries for some time back, and the cheerful tone of letters received, we are of the opinion that Shorthorns have passed the low place, and are becoming more valuable again, for which we are truly thankful, and while we do not wish to have anything approaching the boom of a few years ago, we do hope for such a season that the breeder may make such a reasonable profit that he may be encouraged to so breed good cattle that the future of the grandest cattle known to man may not be jeopardized, in this country at any rate. Breeders in Scotland are reaping a rich and well-merited reward for their years' of unceasing endeavor along this line; the bull sale at Perth having realized the best average in their experience, one bull selling for 600 guineas. Unless the breeder here is able to realize some profit from the produce of his herd, how will he have the courage to import such bulls at such prices, in order to perpetuate or keep up the standard at which all are aiming, viz., as nearly perfection as possible. We are issuing a new catalogue with pedigrees in tabulated form, in our humble opinion, the only form which shows the entire breeding of an animal, which we shall be glad to forward to anyone interested in Shorthorns. Our train accommodation has been much improved on this section of the Grand Trunk, and it is not necessary now to have two or three spare days at your disposal in order to pay a visit, as it was formerly, and Mr. Clancy will be pleased to show anyone through at any time, whether a purchaser or otherwise. If advised, you will be met at the train, though station is on the farm, not quite half a mile from the barn."

HORSE OWNERS! USE



CAUSTIC BALSAM.

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

Veterinary Advice FREE



Dr. S. A. Tuttle, a veterinary surgeon of long experience has written a book entitled "Veterinary Experience" on the diseases of horses, giving symptoms and treatment in plain terms. It is fully illustrated with diagrams showing the skeleton and circulatory and digestive systems with references that make them plain. Tells how to buy a horse and know whether it is sound or not. Every horse owner should have one. It is sent to any one.

TUTTLE'S ELIXIR

is the only guaranteed cure for Colic, Curb, recent Shoe Bells and Callous. It locates lameness, relieves and cures Spavins, Ring Bone, Cockle Joints, Greenes Head, Sore shins, Catarrh, etc. Send today and get the book free and information about Dr. Tuttle's specifics. Tuttle's Elixir Co. 66 Beverly St. Boston, Mass. Avoid all blisters; they are only temporary relief. LYMAN, KNOX & SON, AGENTS, Montreal and Toronto, Canada.

An Inflamed Tendon

NEEDS COOLING

ABSORBINE

Will do it and restore the circulation, assist nature to repair strained, ruptured ligaments more successfully than Firing. No blister; no hair gone; and you can use the horse. \$2.00 per bottle delivered. Book 2-B Free. ABSORBINE, JR., for manking \$1.00 Bottle. Cures Strained Torn Ligaments. Cures Varicose Veins. Alays pain quickly. Genuine manufactured only by W. F. Young, P.D.F., 68 Monmouth St., Springfield, Mass. Canadian Agents, Lyman, Sons & Co., Montreal.

PERCHERONS at BARGAIN PRICES

In order to make room for our new importation, for the next 60 days we will sell stallions at greatly reduced prices. Come and see us while this sale lasts. Among them is a black not three years old, weighing 1900 lbs., with the best of breeding. Located three miles out of town, or two miles from Ruthven, on the Pere Marquette. We pay livery if not on hand to meet you. Address: O. I. A. & E. J. WIGLE, Essex County, Kingsville, Ontario.

"THE REPOSITORY"

Burns & Sheppard, Proprietors,



Cor. Simcoe and Nelson Sts., TORONTO.

Auction Sales of Horses, Carriages, Buggies, Harness, etc. every Tuesday and Friday at 11 o'clock.

Special Sales of Thoroughbred Stock conducted. Arrangements solicited. Correspondence will receive prompt attention.

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

FOR SALE:

SALOMON, the celebrated imported GERMAN COACH STALLION

which can be seen at Mr. John McRoberts', Township of Caradoc, Lot 5, Con. 2, County of Middlesex, and information regarding the above can be had by writing either John McRoberts, Melbourne P.O., or W. W. Gordon, Glencoe.

GORDON, McROBERTS & McLELLAN, Props.

Burdennet Stock Farm—Clydesdales of the most fashionable strains. Imp. and Canadian-bred mares for sale reasonable. Also Berkshire pigs. For particulars write to A. S. GORMLEY, Unionville Stn. and P.O.

Belgian Stallion—Undersigned has for sale the imported Belgian draft stallion, Armateur, No. 4157; dark bay; weight, 2100 lbs. Price reasonable. JOHN McKENZIE, Hartley P. O., Ont. Woodville station.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Prizewinners in Poultry, Eastern Ontario Live-Stock and Poultry Show, Ottawa, 1905.

BRAHMAS (LIGHT).—Cocks—1, W. E. Thom, Morrisburg; 3, Dr. Pritchard, N. Wakefield, Que.; 4, John A. Belford, Ottawa. Hens—1 and 4, John A. Belford; 2, W. E. Thom; 3, Dr. Pritchard. Cockerels—1, 3 and 4, W. H. Snelling, Ottawa; 2, John A. Belford. Pullets—1, 2 and 3, John A. Belford; 4, Chas. LaRose, Cornwall.

BRAHMAS (DARK).—Cocks, Cockerels and Pullets—1 and 2, L. C. Sage, London. Hens—1 and 2, L. C. Sage; 3, B. Wright, Dominionville.

COCHINS (BUFF).—Cocks—1 and 2, A. W. Bell, Toronto. Cockerels—1, J. H. Williams, Ottawa; 2 and 3, A. W. Bell. Pullets—1, J. H. Williams; 2 and 3, A. W. Bell.

COCHINS (PARTRIDGE).—Cocks—1, F. Wales, Milton; 2, R. Oke, London. Hens—1, R. Oke; 2, F. Wales. Cockerels—3, F. Wales. Pullets—1, F. Wales.

COCHINS (BLACK).—Cocks—1, Chas. LaRose. Hens and Pullets—1 and 2, Chas. LaRose.

COCHINS (WHITE).—Cocks—1, F. Wales. Hens—2, F. Wales.

LANGSHANS.—Cocks—1, R. McCurdy, London; 2, Garland & Gilchrist, Hintonburg; 3, R. McCurdy; 4, Ottawa Poultry Yards, Ottawa. Hens—1, B. Wright; 2, E. R. Frith, Maxville; 3, Ottawa Poultry Yards; 4, R. McCurdy. Cockerels and Pullets—1 and 2, R. McCurdy.

BARRED PLYMOUTH ROCKS.—Cocks—1, J. E. Fidler, Brockville; 2, F. W. Beckstead, Morrisburg; 3, Chas. LaRose; 4, S. Short, Ottawa. Hens—1, S. Short; 2 and 3, J. A. Lambertus, Eganville; 4, Garland & Gilchrist. Cockerels—1, F. A. James, Ottawa; 2, J. A. Lambertus; 3, Garland & Gilchrist; 4, J. E. Fidler; 5, F. W. Beckstead. Pullets—1, F. W. Beckstead; 2, J. A. Lambertus; 3, J. E. Fidler; 4, Ottawa Poultry Yards.

WHITE PLYMOUTH ROCKS.—Cocks—1, Walter Bromley, Youville, Que.; 2, Fred A. Andrews, London; 3, F. Wales, Hens—1, 2 and 3, Fred A. Andrews; 4, Walter Bromley. Cockerels—1, F. Wales; 2, Walter Bromley; 3, Fred A. Andrews. Pullets—1, 2 and 4, Fred A. Andrews; 3, F. Wales.

BUFF PLYMOUTH ROCKS.—Cocks and Hens—1, Ottawa Poultry Yards; 3, D. Cumming, Russell. Pullets—1, Robt. A. Robertson, Billings' Bridge; 2, Ottawa Poultry Yards; 3 and 4, D. Cumming.

GOLDEN-LACED WYANDOTTES.—Cocks—1 and 3, T. C. McInnis, Iberville, Que.; 2, Fred J. Blake, Almonte. Hens—1, A. W. Graham, St. Thomas; 2 and 3, T. C. McInnis; 4, Fred J. Blake. Cockerels—1, T. C. McInnis; 2, A. W. Graham; 3 and 4, Fred J. Blake. Pullets—1 and 2, T. C. McInnis; 3, Fred J. Blake; 4, H. Warner, Ottawa.

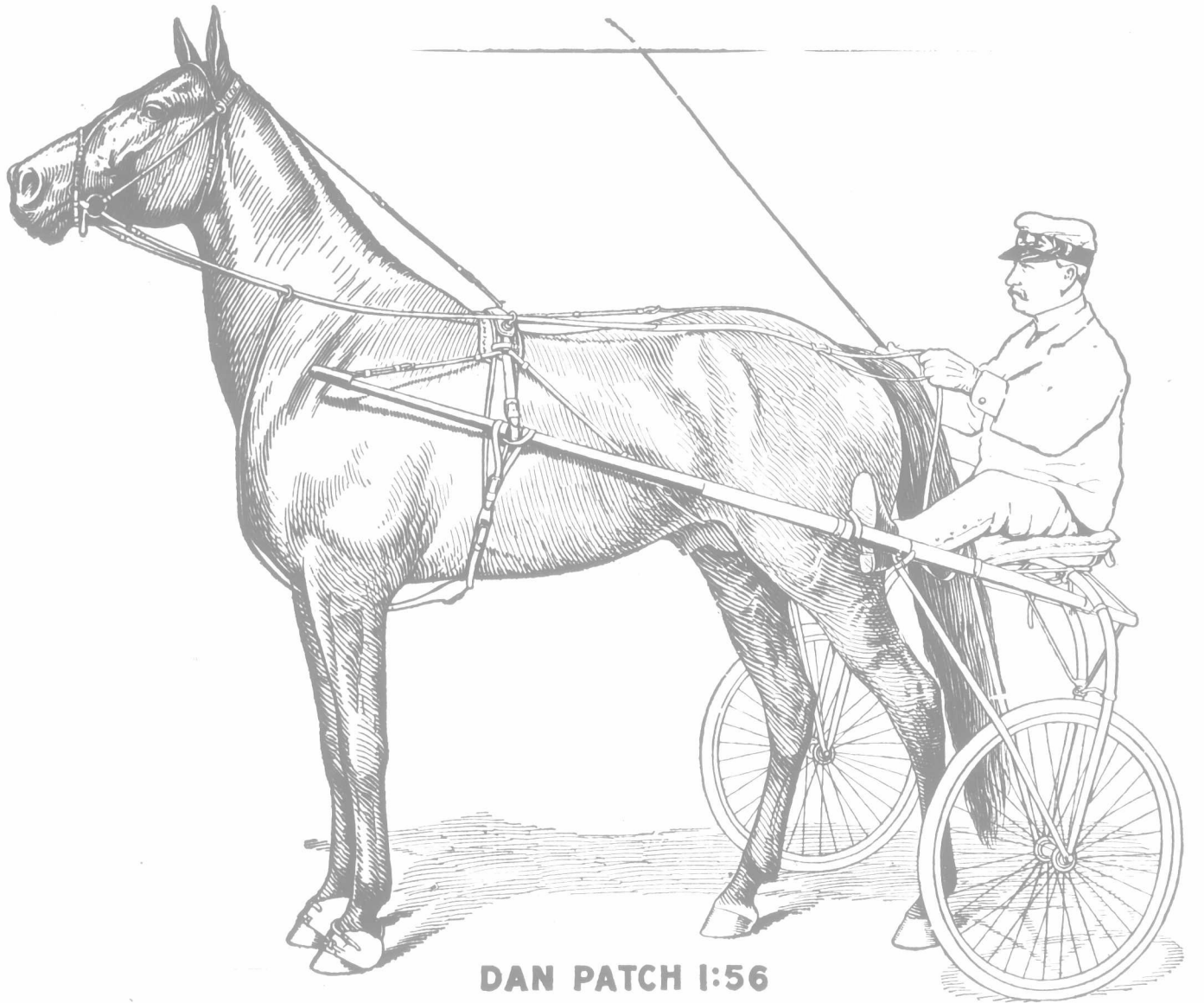
SILVER-LACED WYANDOTTES.—Cocks—2, Fred J. Blake; 3, Jas. A. Cokers, Cornwall; 4, Wm. Trinnell, Scarborough. Hens—1 and 2, Fred J. Blake; 3, Jas. A. Cokers; 4, T. C. McInnis. Cockerels—1, Fred J. Blake; 2, Wm. Delay, Ottawa; 3, Jas. A. Cokers; 4, Wm. Trinnell. Pullets—1, Jas. A. Cokers; 2, Wm. Delay; 3, Wm. Trinnell; 4, Fred J. Blake.

BUFF WYANDOTTES.—Cocks—1 and 3, F. W. Graham; 2, Thos. F. McCabe, East Toronto. Hens—1 and 3, Thos. F. McCabe; 2, A. W. Graham; 4, T. C. McInnis. Cockerels—1, A. W. Graham; 3, Thos. F. McCabe. Pullets—1, J. E. Brethour, Burford; 2 and 3, Geo. Higman, Ottawa; 4, A. W. Graham.

WHITE WYANDOTTES.—Cocks—1, F. Wales; 2, J. R. K. Bristol, Ottawa; 3, T. C. McInnis; 4, O. E. Culbert, Ottawa. Hens—1, O. E. Culbert; 2, Geo. Higman; 3, F. Wales; 4, T. C. McInnis. Cockerels—1 and 2, O. E. Culbert; 3, Wright Bros., Brockville; 4, Geo. Lake; 5, R. Fallis, Ottawa. Pullets—1, Geo. Higman; 2, O. E. Culbert; 3, J. R. K. Bristol; 4, Wright Bros.; 5, R. Fallis.

A. O. V. WYANDOTTES.—Cocks—1, T. C. McInnis. Hens—1, L. C. Sage; 2, T. C. McInnis; 3 and 4, E. Rodler, Montreal. Cockerels—1, L. C. Sage; 2, E. Rodler.

BLACK JAVA.—Cocks—1, R. Oke; 2, (Continued on next page)



DAN PATCH 1:56

BEAUTIFUL COLORED PICTURE OF DAN PATCH MAILED FREE

PRINTED IN SIX BRILLIANT COLORS. SIZE 28 BY 22 INCHES.

The Picture we will send you is a large reproduction of the above engraving, printed in six brilliant colors, without any advertising. It is the finest picture of this famous pacing stallion in existence and is worthy of a place in any home. If you are a lover of horses you want this picture to frame.

MAILED FREE WITH POSTAGE REPAID

WRITE US AND ANSWER THE FOLLOWING QUESTIONS—

1ST. HOW MUCH STOCK OF ALL KINDS DO YOU OWN. 2ND. NAME THIS PAPER.

ADDRESS THE OWNERS AT ONCE **INTERNATIONAL STOCK FOOD CO., TORONTO, CAN.**

"3 FEEDS FOR ONE CENT"

DAN PATCH RESTORED TO HEALTH IN SIX WEEKS.

DAN PATCH GIVEN UP TO DIE

Office of the **Manassas City Veterinary College**, 1530-36 East 5th Street, ROBERT C. MOORE, D.V.S., PRES. HENRY C. BARVICK, M.D., D.V.S., V. PRES. BENJAMIN F. KNAPP, D.V.S., V. PRES. SISCO STEWART, M.D., V.M. M. W. SAVAGE, Minneapolis, Min. Secy and Treas. and Dean of Faculty.

Dear Sir:—I first saw your horse Dan Patch, about 10:00 a. m. Sept. 13th 1904. He was suffering severe pain in the abdominal regions caused by impaction of the bowels probably caused by eating oat chaff. His pulse rate was 72 per minute and his temperature 103. The character of the pulse was weak. The condition gradually grew worse during the afternoon until about 4 p. m. the pulse rate had reached more than 100 and his temperature was 105. The heart grew so feeble that the pulse could not be taken at the jaw and the rate could not be determined by listening to the heart beats. A cold perspiration covered the entire body much of the time and the pain was almost continuous. The visible mucous membranes were highly injected, which with the high temperature showed undoubted evidence of the inflammatory condition existing in the abdominal cavity. At this time owing to the inflammatory condition and the extreme weak heart, the prognosis was very unfavorable. From 4 to 6 p. m. I had little or no hope of his recovery. About 7 p. m. a slight improvement was noticeable and his condition gradually improved.

Veterinarians in attendance. Very truly yours, K. C. MOORE, D.V.S.

HIS WONDERFUL RECOVERY

In four days from the time he was given up to die by three high-class Veterinary Surgeons we shipped Dan Patch from Topeka to our "International Stock Food Farm" at Savage, Minn., and commenced feeding him three times the usual quantity of "International Stock Food" and giving it to him four times per day. He received his strength very rapidly and in three weeks from the first day of his sickness he paced a mile at Springfield Ill., in 2:04. This was in the face of a cold wind and over a track that was not in shape for extreme fast notes. Dan was shipped from Springfield to Minneapolis in six weeks from the date of his sickness he astonished the world by pacing a mile in 1:56 without wind shield. "International Stock Food" is a remarkable vegetable preparation to give permanent strength to the entire system as well as being a great aid to digestion and assimilation. It is used and endorsed by a majority of the great trainers and is in constant use on most horse-breeding farms.

Dan Patch has been fed "International Stock Food" every day since we bought him two years ago for \$60,000. Since that time Dan has broken 7 world's records and was able to withstand his severe sickness. You could not ask better proof of the superior merits of "International Stock Food" which you can feed at a cost of

3 FEEDS FOR ONE CENT.

INTERNATIONAL STOCK FOOD CO., TORONTO

Dear Sir:—I thank you for your letter of the 16th, and for all the trouble you have taken to bring the "International Stock Food" to notice. The merits of the food for horses in a poor condition were not unknown to me before your communication came to hand, but I had not given it close attention as a possible medicine for other animals in trouble. A recent trial of the food with a pen of pigs suffering from what I diagnosed as "Kriszle's Bone-Erotic" certainly proved most successful. After losing two legs within three days out of a pen of seven I commenced feeding your Stock Food liberally to the remainder, all of which had refused to eat the ordinary food and were sick. On the fourth day a third pig died, but the remaining four rapidly recovered and are now well. I took the precaution to feed "International Stock Food" to all the pigs on the farm and in adjoining pens during this outbreak, and quite believe have saved myself from serious loss by using your remedy. I am, dear sir, Yours Faithfully, O. H. HANSON, Director.

YOUR MONEY BACK IF THEY FAIL TO CURE

If "International" Preparations were not up to the standard we could not afford to make such an offer. We hereby agree to forfeit \$1000.00 if we ever fail to do as we say.

"International Stock Food" "International Heave Cure" "International Hoof Ointment" "International Silver Pine Healing Oil"
 "International Poultry Food" "International Colic Cure" "International Pheno-Chloro" "International Quick Cleaner"
 "International Louse Killer" "International Harness Soap" "International Compound Absorbent" "International Distemper Cure"
 "International Worm Powder" "International Foot Remedy" "International Gall Cure"

Prepared and Sold on a "Spot Cash Guarantee" by **INTERNATIONAL STOCK FOOD CO., Toronto, Can.**

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

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

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

Time of payments made to suit the purchaser.

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

Mr. W. D. Platt, Hamilton, Ont., writes the "Farmer's Advocate" as follows: "I have been advised by Messrs. Montgomery, of Kirkcudbright, Scotland, that they have my Clydesdale fillies about all selected, and will ship from Glasgow on first or second ship leaving for Montreal. These gentlemen are acknowledged to be superior judges by Clydesdale men on both sides of the water, and they inform me that they have followed my instructions, and that my order will be filled with strictly high class fillies as called for. These fillies will be sold by auction here at Hamilton in May, without reserve. Further particulars will be given later."

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Prizewinners in Poultry—Cont.

W. H. Reid, Kingston. Hens—1 and 3. W. H. Reid; 2, R. Oke. Cockerels—1, R. Oke; 2, W. H. Reid. Pullets—1, R. Oke; 2 and 3, W. H. Reid.

BLACK-RED GAME.—Cocks—1, Jas. Morley, Milton; 2, B. Wright. Hens—1, Jas. Morley. Cockerels—1, Jas. Morley. Pullets—1, Jas. Morley.

BROWN-RED GAME.—Hens—2, Telfer Bros., Milton; Cockerels and Pullets—1, Telfer Bros.

DUCKWING GAME.—Cocks and Hens—1, Dr. J. H. Bastien, Rigaud, Que.

PILE GAME.—Cocks, Hens, Cockerels and Pullets—1, Telfer Bros.

INDIAN LACED GAME.—Cocks—1, Chas. LaRose; 2, Dr. Pritchard; 3, Dr. J. H. Bastien. Hens—1, Dr. Pritchard; 2, B. Wright; 3, Chas. LaRose. Cockerels—1, Chas. LaRose; 2, D. Cumming; 3, Dr. Pritchard. Pullets—1, Chas. LaRose; 2 and 3, Dr. Pritchard.

ANY OTHER VARIETY OF GAME.—Hens and Cockerels—1, W. H. Reid, Kingston.

PIT GAME.—Cocks—1, Alva Armstrong, Ottawa; 2 and 3, E. H. Benjamin, Ottawa. Hens—1 and 3, E. H. Benjamin; 2, Alva Armstrong. Cockerels—1 and 3, E. H. Benjamin; 2, R. E. McKinstry. Pullets—1, 2 and 3, E. H. Benjamin.

WHITE S.-C. LEGHORNS.—Cocks—1, John I. Gill, Ottawa; 2, Thos. S. Crouch, Billings' Bridge; 3, W. Pranschke, Ottawa; 4, Ernest Gromoll, Ottawa. Hens—1, John I. Gill; 2, Thos. S. Crouch; 3, Jas. McGurran, Ottawa; 4, Ernest Gromoll. Cockerels—1, F. Wales; 2, Ernest Gromoll; 3, W. H. Carleton, Ottawa; 4, Belanger & Connors, Ottawa. Pullets—1, W. H. Carleton; 2, Thos. S. Crouch; 3, F. Wales; 4, John I. Gill; 5, E. Gromoll.

BROWN S.-C. LEGHORNS.—Cocks—1 and 4, Dewar Bros., Milton; 2, W. L. Montgomery, Gravel Hill; 3, T. C. McInnis. Hens—1, Dewar Bros.; 2 and 3, W. J. Player, Galt. Cockerels—1 and 2, Dewar Bros.; 3, D. Cumming; 4, W. J. Player. Pullets—1, D. Cumming; 2 and 3, Dewar Bros.; 4, T. C. McInnis.

BLACK LEGHORNS.—Cocks—2, W. M. Osborne, Brockville. Hens—1 and 2, W. M. Osborne. Cockerels—1 and 2, W. M. Osborne; 3, A. G. H. Luxton, Milton. Pullets—1, 2 and 4, W. M. Osborne; 3, A. G. H. Luxton.

BUFF LEGHORNS.—Hens—1, W. Pillar, Russell; 2 and 3, H. H. Clark, Lennoxville, Que. Cockerels—1, W. Pillar; 2, B. Wright. Pullets—1 and 2, H. H. Clark.

R.-C. BROWN LEGHORNS.—Hens—3, W. S. Stewart & Son, Menie.

R.-C. WHITE LEGHORNS.—Hens—1, W. S. Stewart & Son, Menie.

SPANISH.—Cocks and Cockerels—1, J. H. Warrington, Cornwall. Hens and Pullets—1 and 2, J. H. Warrington.

ANDALUSIANS.—Cocks—1 and 2, C. LaRose; 3, John Gunning, Sherbrooke, Que.; 4, W. P. Carswell, Brockville. Hens—1, John Gunning; 2 and 4, Chas. LaRose; 3, F. Wales. Cockerels—1 and 2, Chas. LaRose. Pullets—1, F. Wales; 2, Chas. LaRose; 3, W. P. Carswell; 4, John Gunning; 5, Chas. LaRose.

BLACK MINORCAS.—Cocks—2, Garland & Gilchrist. Hens—1 and 3, E. R. Frith; 2 and 5, Ottawa Poultry Yards; 4, G. A. McInnis, Prescott. Cockerels—1, W. L. Montgomery; 2 and 5, Garland & Gilchrist; 3, B. Wright; 4, L. A. Brill, London. Pullets—1, W. J. Bullock, Gananoque; 2, G. A. McInnis; 3, E. R. Frith; 4, B. Wright; 5, Garland & Gilchrist.

WHITE MINORCAS.—Cocks—2, W. M. Osborne. Hens—1, 2 and 3, W. M. Osborne. Cockerels—2, W. M. Osborne. Pullets—1 and 2, W. M. Osborne.

BUFF ORPINGTONS.—Cocks—1, Walter Bromley; 2, A. W. E. Hellyer, Ottawa. Hens—1, 2 and 3, A. W. E. Hellyer; 4, S. W. D. Frith. Cockerels—1 and 3, A. W. E. Hellyer; 2, Jos. A. Allan, Ottawa; 4, Walter Bromley. Pullets—1, 3 and 4, A. W. E. Hellyer; 2, R. A. Robertson.

QUEENSTON CEMENT

Sold direct from the manufacturer to the consumer.

Don't be misled by statements of agents handling cement paying large commissions. Go yourself and see Queenston walls and floors built in your own locality.

ISAAC USHER, Queenston, Ont.

PORTER'S GOLD & SILVER FAWN ST. Lambert Jersey Herd

I have a number of bulls, cows and heifers for sale. No better blood. No better cream-producers. No better lookers.

T. PORTER, Carleton West, Ont.

THE SUNNYSIDE HEREFORDS

Imp. Onward, at head of herd. Special offering: 4 bulls over 1 year old, 6 choice bull calves, 20 choice cows and heifers of the choicest breeding and individual merit.

HURON CENTRAL STOCK FARM

Our present offering is seven young bulls, 8 to 18 months old. All sired by the champion bull Goderich Chief 3743.

ABERDEEN-ANGUS

Our herd of breeding cows, both imported and home-bred, are of the most fashionable Scotch families.

FLETCHER SHORTHORNS

Our herd of breeding cows, both imported and home-bred, are of the most fashionable Scotch families.

THREE IMPORTED Shorthorn Bulls

Four imported cows in calf, home-bred cows, heifers and young bulls, all of straight Scotch families.

Shorthorns and Lincolns

12 young bulls, 6 heifers, and some young cows of choice breeding.

Shorthorns, Lincolns and Berkshires

Young stock of either sex for sale. Reasonable. For particulars apply to W. H. Ford, Maple Shade Farm, Dutton, Ont.

YOUNG SHORTHORNS for sale, either sex, good by that

SHORTHORNS

Choice young bulls for sale, ready for service. For particulars write to JOHN ELDER, Hensall Stn. & P. O., Ont.

SCOTCH-TOPPED SHORTHORNS

Nine young bulls ready for service; also several heifers by Scottish Baron 40421 (imp.), for sale reasonable.

Scotch Shorthorns—4 bulls, 20 months old;

SPRING VALLEY SHORTHORNS

Good bulls at reasonable prices, out of good Scotch cows, and by such bulls as Banton Chancellor (imp.), Scottish Beau (imp.), Nonpareil Archer (imp.), Clipper Hero, etc.

A. O. V. ORPINGTONS.—Cockerels—1, J. L. Armstrong, Ottawa; 2, W. J. Annand, Ottawa; 3, John S. Allan. Pullets—1, J. L. Armstrong; 2, S. W. D. Frith; 3, W. J. Annand.

GREY DORKING.—Cocks—1, W. H. Reid; 2, W. Stewart & Son. Hens—1, W. H. Reid; 2, W. Stewart & Son; 3, J. H. Warrington. Cockerels—1, A. G. H. Luxton; 2 and 3, J. H. Warrington; 4, W. Stewart & Son. Pullets—1, W. Stewart & Son; 2, J. H. Warrington; 3, A. G. H. Luxton; 4, J. H. Warrington.

COLORED DORKINGS.—Cocks—1, W. H. Reid; 2, J. H. Warrington. Hens—1, J. H. Warrington; 2, W. Stewart & Son; 3, W. H. Reid. Cockerels—2 and 3, J. H. Warrington. Pullets—1 and 3, J. H. Warrington; 2, W. H. Reid.

WHITE DORKINGS.—Cocks and Cockerels—1, J. H. Warrington. Hens and Pullets—1 and 2, J. H. Warrington.

HOUDANS.—Cocks—1, Dr. J. H. Bastien. Hens—2, Dr. J. H. Bastien. Pullets—2, E. Rodier.

ANY OTHER VARIETY, FRENCH.—Cocks—1, R. Oke; Hens—1, R. Oke; 3, J. H. Warrington. Cockerels—1, J. H. Warrington; 2, R. Oke; 3, E. Rodier. Pullets—1, R. Oke; 2, J. H. Warrington; 3, E. Rodier.

BLACK HAMBURGS.—Cocks—1, Wm. McNeil, London; 2, R. Oke; 3, B. Wright. Hens—1, B. Wright; 2, Wm. McNeil; 3, R. Oke. Cockerels—1, R. Oke; 2, Wm. McNeil. Pullets—1, Wm. McNeil; 2, R. Oke.

GOLDEN PEN HAMBURGS.—Cocks—1, Wm. McNeil; 2, B. Wright. Hens—1, R. Oke; 2, Wm. McNeil; 3, B. Wright. Cockerels—1, R. Oke; 2, Wm. McNeil. Pullets—1, Wm. McNeil; 2, R. Oke.

SILVER PEN HAMBURGS.—Cocks—1, Wm. McNeil; 2, R. Oke. Hens—1, R. Oke; 2, Wm. McNeil. Pullets—2, R. Oke; 3, Wm. McNeil.

GOLDEN-SPANGLED HAMBURGS.—Cocks—1, B. Wright; 2, Wm. McNeil; 3, R. Oke. Hens—1, Wm. McNeil; 2, B. Wright; 3, R. Oke. Cockerels—1, Wm. McNeil; 2, R. Oke. Pullets—1, Wm. McNeil; 2, R. Oke.

SILVER-PENCILED HAMBURGS.—Cocks—1, R. Oke; 2, Dr. J. H. Bastien. Hens—1, R. Oke; 2, Wm. McNeil; 3, Dr. J. H. Bastien. Cockerels—1, Wm. McNeil; 2, R. Oke. Pullets—1, R. Oke; 2, Wm. McNeil.

RED CAPS.—Cocks—1, J. H. Warrington. Hens—1, 2 and 3, J. H. Warrington. Cockerels—1, J. H. Warrington. Pullets—1, 2 and 3, J. H. Warrington.

W. C. B. POLANDS.—Cocks—1, Dr. J. H. Bastien; 2, Wm. McNeil. Hens—1 and 2, Wm. McNeil; 3, Dr. J. H. Bastien. Cockerels—1 and 2, Wm. McNeil. Pullets—1, Wm. McNeil.

GOLDEN POLANDS.—Cocks—1, Dr. J. H. Bastien; 2 and 3, Wm. McNeil. Hens—1 and 2, Wm. McNeil; 3, Dr. J. H. Bastien. Cockerels—1 and 2, Wm. McNeil. Pullets—1 and 3, Wm. McNeil.

SILVER, WHITE AND A. O. V. POLANDS.—All prizes awarded won by Wm. McNeil.

ANY OTHER VARIETY.—1 and 2, in each class, Wm. McNeil.

BRONZE TURKEYS.—Cocks—1, A. Thompson, Allan's Corners, Que.; Hens—1, A. Thompson; 2, J. Cumming; 3, Geo. R. Bradley, Carsonby. Cockerels—1 and 2, A. Thompson; 3, G. R. Bradley. Pullets—1 and 2, A. Thompson; 3, G. R. Bradley.

WHITE TURKEYS.—Cocks—1, D. Cumming. Cockerels—1 and 2, A. Thompson. Pullets—1 and 3, A. Thompson; 2, D. Cumming.

A. O. V. TURKEYS.—Cocks—1, A. G. H. Luxton; 2, A. Thompson. Hens—1 and 2, A. Thompson; 3, A. G. H. Luxton. Cockerels—1 and 2, A. Thompson; 3, A. G. H. Luxton. Pullets—1 and 2, A. Thompson; 3, A. G. H. Luxton.

TOULOUSE GEESE.—Ganders—1 and 2, A. Thompson. Geese—1 and 2, A. Thompson. Ganders, 1904—1 and 2, A. Thompson; 3, D. Cumming. Geese, 1904—1 and 2, A. Thompson; 3, D. Cumming.

BREMEN GEESE.—Ganders—1 and 2, A. Thompson. Geese—1, A. Thompson. Gander, 1904—1, A. Thompson; 2, A. G. H. Luxton; 3, D. Cumming. Geese, 1904—1, A. Thompson; 2, A. G. H. Luxton. CHINESE GEESE.—Ganders—1, A. Thompson; 2, A. G. H. Luxton. Geese—1, A. G. H. Luxton; 2, A. Thompson.

Bog Spavin. Lameness resembles bone spavin, but the hunch is in front of the true hock joint, a little to the inner side, and is soft and yielding, hardening sometimes as the case grows old. Fleming's Spavin Cure (Liquid) is a special remedy for the soft and semi-solid bunches that make horses lame.

Scotch Shorthorns YOUNG BULLS AND HEIFERS

by imp. Royal Prince 71490 and imp. Blue Ribbon 17095 for sale at very reasonable prices. Come and see what I have.

DAVID BIRELL, Maple Hill Stock Farm, Greenwood Ont. Plokinger Sta., G. T. R. Clarendon, C. P. R.

TWO CHOICE IMPORTED BULLS FOR SALE.

Spicy Broad-hocks, sired by Spicy King (8717), Scottish Hero, secondary, by Proud Champion (81984). Also a few promising home-bred bulls, sired by Banton Chancellor, and a number of imported and Canadian-bred females at moderate prices.

H. J. DAVIS, Woodstock, Ont.

SPECIAL OFFERING OF SHORTHORNS AND SHROPSHIRE

(Imp.) Sootland's Pride—36088—, 5 years old, a Cruickshank Clipper, by the great sire, Star of Morning. (Imp.) Scottish Pride—36106—, 4 years old, a grand sire, of the Marr Roan Lady family.

W. G. PETTIT & SONS, FREEMAN, ONT. Burlington Jct. Station, Telegraph, Telephone.

Elm Grove Shorthorns

We have for sale one imported bull, Scottish Rex, No. (36107), sure and active. Also young bulls and heifers. For prices and particulars address

W. G. SANDEES & SON, Box 1138, St. Thomas, Ont.

MAPLE HILL STOCK FARM SCOTCH SHORTHORNS

of the Brawith Bud, Cocolla, Mayflower, Fashion and Daisy families. Head headed by the grandly-bred Lavender bull, Wanderer's Star—48585—, by Wanderer's Last (Imp.).

W. M. E. ELLIOTT & SONS, Box 426, Guelph, Ont.

Queenston Heights Shorthorns

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

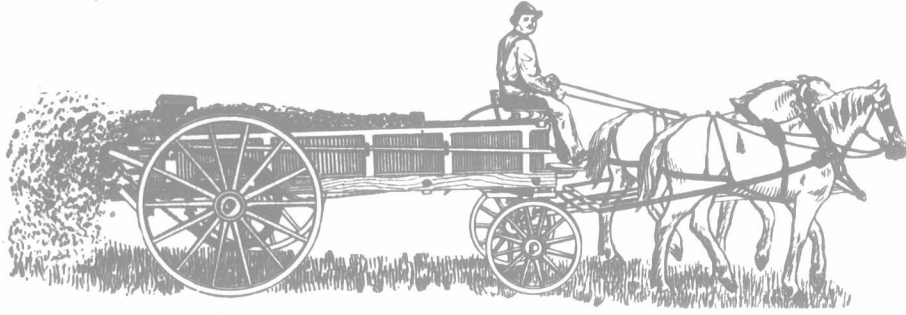
HUDSON USHER, Queenston, Ont.

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

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

"Success" Manure Spreader

Pays for itself in one year by saving in labor and manure and the increased crops produced.



A SUCCESS MANURE SPREADER will economize labor more than any other farm implement.

It will make the manure go two or three times as far as when spread by hand, and every acre spread will produce from 10 to 15 per cent. more crop.

After the first year the results secured are all profit.

You can sit still, and the machine and team will do the work.

With a SUCCESS you can spread a load in five minutes.

The spreading is even to the end of the load.

Our beater chain-driving device gives us the easiest running and strongest machine on the market.

A manure spreader is a necessity on every farm. Investigate the situation and buy now.

Write for booklet, "Worth Its Weight in Gold."

Manufactured by

The PARIS PLOW CO., Ltd., PARIS, ONT.

Western Agents: THE STEWART NELSON CO., Ltd., Winnipeg, Man.

Agents for Quebec and Maritime Provinces: THE FROST & WOOD CO., Ltd., Montreal, Quebec, St. John and Truro.

"The best workmen use the best tools."

The Improved
U. S. Cream Separator

Continues to prove that in the judgment of THE BEST workmen it



Is the Best

Every one of the highest scores and the sweepstakes on Dairy Butter in the four World's Fair contests, at St. Louis were awarded to the products of the improved

U. S. Cream Separator.

Holds World's Record for Close Skimming.

Investigate it, thoroughly, and you will use no other.

Send for our Handsome Booklet Illustrated in Colors. Free.

THE VERMONT FARM MACHINE CO.
BELLOWS FALLS, VT.

Transfer Points: Sherbrooke, Que., Montreal, Que., Hamilton, Ont., for the East. San Francisco for British Columbia and Minneapolis for Manitoba and N.W.T.

Special Notice to Our Readers.

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

FARMER'S ADVOCATE AND HOME MAGAZINE.

I CURED MY RUPTURE



I will show you how to cure yours FREE

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

Dr. W. S. Rice, 2 1/2 East Queen St. Toronto, Ont. Block (276)

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Prizewinners in Poultry—Cont.

Gander, 1904—1, A. Thompson; 2, A. G. H. Luxton. Geese, 1904—1, A. Thompson; 2, A. G. H. Luxton; 3, D. Cumming.

A. O. V. GEESE. Ganders—1, A. G. H. Luxton; 2 and 3, A. Thompson. Geese—1 and 3, A. Thompson; 2, A. G. H. Luxton. Ganders, 1904—1, A. Thompson; 2, A. G. H. Luxton. Geese, 1904—1 and 2, A. Thompson; 3, A. G. H. Luxton.

ROUEN DUCKS.—Drakes and Ducks, also Drakes and Ducks, 1904—1, A. Thompson.

PEKIN DUCKS.—Drakes—1, A. Thompson; 2, R. A. Robertson; 3, F. O. Leroux, Ottawa. Ducks—1, A. Thompson; 2, F. O. Leroux; 3, W. Stewart & Son. Drakes, 1904—1, A. Thompson; 2, F. O. Leroux; 3, D. Cumming. Ducks, 1904—1, A. Thompson; 2, D. Cumming; 3, F. O. Leroux.

AYLESBURY DUCKS.—Drakes and Ducks, and Ducks and Drakes, 1904—1, A. Thompson.

CAYUGAS.—Drakes—1, D. Cumming; 2, A. Thompson. Ducks—1, A. Thompson; 2, D. Cumming. Drakes, 1904—1, A. Thompson. Ducks, 1904—1, J. H. Warrington; 2, A. Thompson.

A. O. V. DUCKS.—Drakes—1, B. Wright; 2, F. Wales; 3, A. Thompson. Ducks—1, B. Wright; 2, F. Wales; 3, A. Thompson. Drakes, 1904—1, A. Thompson; 2, B. Wright; 3, A. G. H. Luxton. Ducks, 1904—1, A. Thompson; 2, A. G. H. Luxton; 3, B. Wright.

QUESTIONS AND ANSWERS. Veterinary.

MARE DOES NOT LIE DOWN.

Mare does not lie down at night. I put her in a large stall, but still she persists in standing. H. B.

Ans.—This is an undesirable characteristic of some horses, and we cannot account for it. It is undesirable, as the animal cannot rest so well, even though horses can sleep while standing. All that you can do is provide her with a large box stall, well bedded, and allow her to run loose. This will probably encourage her to lie. V.

OBSCURE LAMENESS.

Pregnant mare, doing some light farm work, went very lame on off hind leg for three days. This got better, and she went very lame on near hind leg for three days. There was no swelling or soreness to the touch. My veterinarian gave some medicine for the blood. In six weeks she went lame again in exactly the same way and for the same length of time. Since the first attack, she appears a little stiff when moving. A. C.

Ans.—Severe lameness without swelling or soreness, lasting three days, and then affecting another limb for the same length of time, and disappearing, to reappear in six weeks with the same peculiarities, is, so far as I am aware, unprecedented. Without further particulars as to the manner of progression as regards peculiarities of action, etc., during lameness, I am unable to locate the seat. If the trouble recurs, it would be well to send for your veterinarian during the time of acute lameness, and he will probably be able to locate the trouble. In the meantime, feed lightly, and give regular exercise or light work. V.

Miscellaneous.

VETERINARY BOOK FOR FARMERS—DRAINING PLOW.

1. Some tell me that "Veterinary Elements," price \$1.50, contains more practical, helpful information for the ordinary farmer than do some of the much higher-priced books on the same subject.

2. Do you know of a "draining plow" that will materially assist in that work? A Toronto company make one, but it will not throw the soil out. J. W. K.

Ans.—1. For the general farmer we know of no work that we could more safely recommend than "Veterinary Elements." Many of the others are altogether too technical.

2. Manufacturers who make suitable ditching machines should advertise them in this paper.

TAKE MY CURE, WHEN CURED YOU PAY ME



The fear that you could not be cured may have deterred you from taking honest treatment, or you may have been one of the unfortunate, who have been treated in vain by inexperienced physicians, free treatments, free trial samples, patent medicines, electric belts and other similar devices. Such treatments cannot and will never cure you, nor will these maladies cure themselves. When I offer you a cure, and am willing to risk my professional reputation in curing you, and have such faith and confidence in my continued success in treating these diseases that not a dollar need be paid until you are cured, a fair proposition cannot be offered to the sick and afflicted. This should convince the skeptical that I mean what I say, and do exactly as I advertise, as I am positive of curing you in the shortest possible time, without injurious effects. My charges will be as low as possible, for conscientious, skilful and successful services, and my guarantee is simple and true. Not a dollar need be paid until cured. I have 14 diplomas and certificates from the various colleges and state boards of medical examiners, which should be sufficient guarantee of my standing and abilities. It makes no difference who has failed to cure you, it will be to your advantage to write to me for my opinion of your case, which I give you free of charge. I want to hear from patients who have been unable to get cured, as I guarantee a positive cure for all chronic, nervous, blood and skin diseases, which I accept for treatment. I not only cure the condition itself, but likewise all the complications, such as rheumatism, kidney and bladder troubles, blood poison, physical and nervous debility, lack of vitality, stomach troubles, etc. All medicines for patients are prepared in my own laboratory to meet the requirements of each individual case. All medicines for Canadian patients sent from Windsor, Ont., duty and transportation prepaid. I will send a booklet on the subject which contains the 14 diplomas and certificates, entirely free. Address simply, Dr. S. Goldberg, 208 Woodward Ave, Suite 335, Detroit, Mich.

12 SHORTHORN BULLS

20 Cows and Heifers

Good ones, Scotch-bred, at moderate prices. Catalogues on application.

H. SMITH, Exeter, Huron Co., Ont. Station adjoins farm. Long-distance telephone in residence.

A. EDWARD MEYER

Box 378, Guelph, Ont.

Breeder of High-class Scotch Shorthorns

Princess Royals, Brawith Buds, Villages, Nonpareils, Minas, Bessies, Clarets, Urys and others. Herd bulls, imp. Chief of Stars (72215), 145417, -32076-, Lovely Prince -50757-. Some choice yearling steers for sale. Correspondence solicited. Visitors welcome. Telephone in house.

Shorthorns and Yorkshires

Present offerings: Young stock, either sex. For price and description write to W. J. MITTON, Mapleton Park Farm, THAMESVILLE, ONT.

HOLLYMOUNT STOCK FARM.

SCOTCH SHORTHORNS.

Young stock, either sex, from imp. sire and dams, for sale. For price and particulars write to W. J. THOMPSON, Mitchell, Ont.

High-class Shorthorn Cattle and Improved Old-fashioned Devon Cows and Heifers. For price and particulars write to JAS. TOLSON & SON, Waindorton, Ont.

THOS. MERCER, Box 33, Markdale, Ont.

Breeder and importer of

CLYDESDALE HORSES, SHORTHORN CATTLE and YORKSHIRE PIGS.

Car lots a specialty.

Shorthorns, 6 bulls, 6 to 18 mos., by Provost -37865-. For price write to RICHARD WILKIN, Springfield Stock Farm, o Harrison, Ont.

LAKEVIEW SHORTHORNS.

Spley King (imp.) at head of herd. Young bulls for sale reasonably. For prices, etc., apply to

THOS. ALLIN & BROS., OSHAWA, ONT.

For Sale—Shorthorns, Leicesters and Berkshires. Also Buff Orpington cockerels. Write for wants, or come and see.

E. JEFFS & SON, Bond Head P. O., Bradford and Beeton Stns., G. T. R.

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GOSSIP.

THE LEWIS AND CLARK FAIR.

The echoes of the great St. Louis Fair have scarcely died away before a call comes from the far west to attend an exhibition in Portland, Oregon, to be known as the Lewis-Clark Centennial, commemorative of the first visit paid by those explorers to that section of the United States. The fair will be opened June 1st. It is expected that everything will be ready by the opening day.

The premiums offered by the managers for live stock aggregate \$40,000. Of these \$12,000 are offered for horses, \$16,500 for cattle, \$6,500 for sheep and goats, \$3,500 for swine, and \$1,500 for poultry and pets. This sum, it is expected, will be greatly augmented by special contributions.

One of our representatives made a visit recently to the cement establishment of Mr. Isaac Usher, at Queenston, Ont., and found this pioneer cement manufacturer newly ready to operate again this season. Their kiln was burning, and operations in the mines had already commenced. The prospects all are that this old company will have a splendid season. They have been before the public for more than twenty years, and have never once had a failure with Queenston cement where proper material was used. The great difficulty is with loamy or earthy gravel, which, used with any cement, it is impossible to get good results. Farmers should get together and enjoy the benefit of car-load rates, instead of paying local freight. It will be noticed by their advertisements that they are selling at 70c. a barrel, f. o. b., Queenston. Mr. Usher says that this is an extremely low figure for a strictly first-class cement; but when they took into consideration the agents' fees and collections that would be saved by selling direct, they decided to give the consumer the benefit. Write to Mr. Usher at once, if you contemplate using cement this year.

The Holstein-Friesian bull, Sarcastic Lad 23971, whose photograph appears in this issue, was purchased by the Department of Dairy Husbandry, University of Illinois, at the Holstein-Friesian sale held in September at the World's Fair grounds, St. Louis.

Last spring he was purchased by the World's Fair Holstein-Friesian Association and taken to St. Louis as head of the herd at the Holstein-Friesian test barn.

Although this association was obliged to select a herd on short notice, it succeeded in bringing together a group of females of great productive ability. In order to make this herd complete, it was necessary to have a great sire, which they found in the noted bull, Sarcastic Lad. All things considered, he is perhaps, or soon will be, the most noted Holstein-Friesian bull in America.

His dam and grandam have two of the largest official yearly records of any cow of the breed. Belle Sarcastic, his dam, has a seven-day record of 16.42 pounds of butter-fat, and a yearly record of 23,189.6 pounds of milk, and 721.7 pounds of butter-fat. His grandam on his sire's side, Rosa Bonheur 5th, has a seven-day record of 20.47 pounds of butter-fat, and a yearly record of 17,043.4 pounds of milk and 469.3 pounds of butter-fat.

Sarcastic Lad is not only backed by the large official yearly records of his dam and grandam, but in addition to his own individual excellence he has shown himself capable of producing offspring which are uniformly high producers. Although only seven years of age, he has eleven daughters and nine grand-daughters in the Advanced Registry. The most of these records have been made at two years of age, which speaks well for the early productiveness of his daughters. He has sons at the head of twenty-seven important Holstein-Friesian herds, besides many sons at the head of herds of less importance. He is a bull of grand constitution, quality and character, a model of the breed.

Do You Realize That a Neglected Cough May Result in Consumption.

If you have a Cold, Cough, Hoarseness, Bronchitis, or any affection of the Throat and Lungs, what you want is a harmless and certain remedy that will cure you at once.

There is nothing so healing, soothing, and invigorating to the lungs as the balsamic properties of the pine tree.

DR. WOOD'S NORWAY PINE SYRUP

Contains the potent healing virtues of the pine, with other absorbent, expectorant and soothing medicines of recognized worth.

Dr. Wood's Norway Pine Syrup checks the irritating cough, soothes and heals the inflamed Lungs and Bronchial Tubes, loosens the phlegm, and gives a prompt sense of relief from that choked-up, stuffed feeling.

Price 25 cents per bottle. Be sure and ask for Dr. Wood's.

LOCUST HEDGE STOCK FARM, SHORTHORNS

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

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

1864 - HILLHURST FARM - 1905 SHORTHORNS

Scotch and Scotch-topped Broad Scotch = 46315- (Sittlyton Buttery) at head of herd. FOR SALE: Young bulls by Lord Mountsphen, Joy of Morning and Scottish Beau, 12 to 18 months old. Prices moderate.

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

Three Scotch-topped Shorthorn Bulls

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

Stations: Myrtle, C. P. R.; Brooklin, G. T. R. WM. D. DYER, Columbus, Ont.

RIDGEWOOD PARK STOCK FARM SHORTHORNS

Special offering on account of shortage of feed: Imp. and Canadian-bred cows and heifers, some first-class show stuff of leading families, including Missies, Mayflowers and Village Girls, and by such imp. sires as Imp. Favorite (83469), Nonpareil Archer and Marquis of Zenda. No fancy prices. Satisfaction guaranteed. Visitors met by appointment and always welcome.

E. C. & R. O. ATTRILL, Goderich, Ont.

Belvoir Stock Farm SHORTHORN BULLS

various ages; imported and home-bred, by imp. Gay Lothario, a Cruickshank Lavender. OLYDE STALLION, 2 years old; sire imp. dam a winner, grandam 1st Highland Show. YORKSHIRES—Sows and boars, various ages; not akin. Three imp. boars and 5 imp. sows to select from, and their progeny. Prices right. Also honorable dealing.

RICHARD GIBSON, Delaware, Ont.

CHAS. RANKIN, WYEBRIDGE, ONT.

IMPROVER AND BREEDER OF SHORTHORN CATTLE and OXFORD DOWN SHEEP.

Head headed by Pride of Scotland (imp.). FOR SALE—Females and bulls of all ages, from upst Scotch families.

R. & S. NICHOLSON SHORTHORNS

Present offering: Seven young bulls of serviceable age; good ones. Prices right. For particulars write to above firm.

Parkhill Sta. and Telegraph. SYLVAN, ONT.

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

SHORTHORNS FOR SALE

Both male and female, different ages. Prices very reasonable. For particulars write to CHAS. E. PORTER, Tottenham Sta., G. T. R. Lloydtown, Ont.

Forest Hill Stock Farm Shorthorns—3 choice serviceable age, and a few good heifer calves. For particulars apply G. W. KEAYS, Hyde Park P. O., Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

FARM BOOKKEEPING.

Would you please let me know, through your next issue, the best method of farm bookkeeping? S. E. W.

Ans.—We would not undertake to say what is the best method. Few farmers can take the time to keep an elaborate set of books, each one must adopt some simple system of accounts adapted to his particular needs and conditions. Useful suggestions will be found in past issues of the "Farmer's Advocate," June 1st, 1901, and pages 234 and 235 in issue of February 18th, 1904. Wm. Rennie, in his book, "Successful Farming," also outlines a system of farm accounts. Discussion on the subject is invited.

SALT FOR ONIONS—VEGETABLE GARDENING.

1. Kindly let me know whether salt is a good thing to put on onion ground, and how much to the acre? The soil is a light clay loam, with considerable small stone, principally limestone.

2. Where in Canada can I get a book named "Vegetable Gardening," by Prof. S. B. Green, of Minnesota, and published by the Webb Publishing Co., St. Paul? Huron Co., Ont. S. G. W.

Ans.—1. We believe salt is not regarded as a necessary fertilizer for onions, though it might have some slight value in cleaning the land. If any grower has found it of advantage we should be pleased to hear from him.

2. Order through this office; price, 50c. TOO LITTLE VARIETY IN FOOD.

I have a valuable Orpington hen that took sick about a month ago. Was all right at night, but next morning was quite bad. She takes bad spells; spins around, and seems to have lost control of herself, and her comb gets very red. She eats and drinks well, but sometimes can't eat unless her head is held down. Hen was in good condition; was fed on oats and barley, with a little mangels in the morning, and had water with some sweet skim milk in it for drink. She had the run of the barnyard in the day time. M. J. M.

Ans.—Replying to the letter of M. J. M., would say that this chicken shows symptoms of being over-fed, possibly on a diet that has been practically the same since last fall. A chicken requires variety in food, such as wheat, oats and barley, some corn, vegetables and meat. I would begin by placing the bird in a coop by itself, and giving it a good dose of salts; take 1/2 to 1 of a teaspoonful of dry salts, open the bird's mouth and pour as much as possible down its throat. Place grit in front of the chicken, and good clean water, and then feed a variety of food as mentioned above. It may be necessary to give this dose of salts twice a week for two or three weeks. W. R. GRAHAM.

O. A. C., Guelph, Ont. CEMENT VS. FRAME HOOPEN, SIZE, COST.

1. In building a hogpen, which is the best to build, one of cement or of frame?

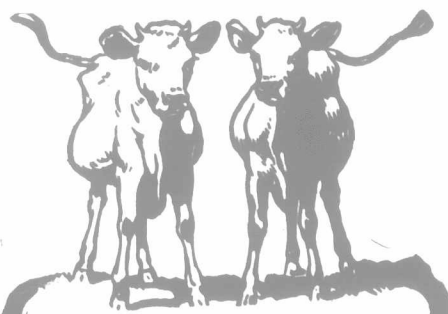
2. What size of pen would it take for, say, 30 hogs, and a pen for about 50 hens?

3. What would be the cost for building a pen of that size (a) of cement, (b) of frame? T. W. S.

Ans.—1. Our preference is strongly in favor of a frame building, set on a cement foundation, extending from below the frost line to one or two feet above the floor of the pen. A concrete floor is recommended, with raised plank sleeping places.

2. A building 26 x 42 feet should meet your needs nicely.

3. Hard question to answer. Prices of labor, cost of lumber, quantity of cement deemed necessary by the mason, and a dozen other considerations complicate the problem. Your cement wall would require to be about one foot thick and (including foundation) about ten feet high, besides the gable ends. If you desire a loft to store feed and bedding, of course, the wall should be three or four feet higher. A ten-foot wall, with suitable foundation, would contain, roughly, 1,700 cubic feet of gravel and small stone, to mix with which you would need about 50 bbls. of Portland or 75 bbls. of hydraulic cement. This, of course, does not provide for roofing, floors or interior woodwork, which would be the same with either kind of building. A frame building would almost certainly be cheaper and more satisfactory than a cement.



Pot Bellied Calves

are neither pretty nor profitable. This condition arises from over-feeding, causing gas to accumulate in the stomach with accompanying indigestion, constipation and scours. It is remedied by

DR. HESS Stock Food

the old reliable digester and conditioner.

Dr. Hess Stock Food is not a condimental food, but a scientific stock tonic and laxative, the famous prescription of Dr. Hess (M. D., D. V. S.), that tones up the organs of digestion and assimilation. Rapid development and immunity from the diseases common to the calf is made possible while increasing the vitality, and carrying the young stock beyond the danger point.

Dr. Hess Stock Food is sold on a written guarantee, 100 lbs. for \$7.00; 45-lb. pail \$3.00 (duty paid); smaller quantities at slight advance. Fed in small doses.

DR. HESS & CLARK, Ashland, Ohio, U. S. A. Also manufacturers of Dr. Hess Poultry Pan-a-c-e-a and Instant Louse Killer.

SCOTCH SHORTHORNS

85 head in our herd.

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

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

R. A. & J. A. WATT

Salem P. O. Elora Station, C. P. R. and G. T. R. Telephone in house. Our herd of seventy-five head of Scotch-bred SHORTHORNS compares favorably with the best. Inspection and correspondence invited.

BELMAR PARO SHORTHORNS

We offer six splendid young Scotch bulls and a really choice lot of females at prices that will pay you. Address: PETER WHITE, JR., PEMBROKE, ONT.

CLEAR SPRING STOCK FARM HIGH-CLASS SHORTHORNS

A specialty. Present offerings young bulls and heifers from first-class stock. Correspondence or inspection of herd invited. JAS. BROWN, Thorold Sta. & P. O.

High-class Shorthorns—We have now for sale one bull, 2-year-old prizewinner, and one yearling; also a number of young cows and heifers. BROWN BROS., Lakeview Farm, Orono, Ont. Newcastle Sta., G. T. R.

WILLOW BANK STOCK FARM—1855

Old Established Herd. Special offering of SHORTHORNS, either sex; also choice BERKSHIRE PIGS, fit for service. o JAMES DOUGLAS, Caledonia, Ont.

J. A. LATTIMER, Box 16, Woodstock, Ont., Offers Shorthorn Bulls, fit for service. Also two shire sows in pig to imp. boar. All at prices that will induce you to buy. Write for further particulars.

QUESTIONS AND ANSWERS.
Miscellaneous.

BREEDING YOUNG HEIFER.

Would you advise breeding a pure-bred heifer at the age of fifteen months, which comes in season regularly; is in good, thrifty condition, and weighing about eight hundred pounds. R. R.

Ans.—Yes; if the heifer is well developed for her age. In the dairy breeds, it is common to have heifers produce at two years old, and the breeders of beef breeds, in many cases, have their strongest heifers calve at that age.

TITLE PAPERS—HORSE DEAL—PERJURY.

1. A bought a farm from B. A paid B one thousand dollars down, and gave B a mortgage for two thousand. A has now paid B the balance. B endorsed the mortgage, the last payment. A holds all papers. Should A have the deed made out, and the mortgage discharged in the registry, or can he have it done any time?

2. A wants to buy a horse from B. B wants \$110. A would not buy. B comes along next day and offered the horse for \$105, and says the mare was in foal, and that she was only eleven years old. A pays no money down. A found out next day mare was seventeen years old, and not in foal, and returned her. Can B compel A to pay for the mare?

3. What is the law on perjury, if it can be proven clearly?

SUBSCRIBER.

Ans.—1. A should certainly have deed made in his favor, and it and the certificate of discharge of mortgage registered at once. To delay would be dangerous.

2. No.

3. It is an indictable offence, and renders the guilty party liable to fourteen years' imprisonment, or if committed in order to procure the conviction of a person for any crime punishable by death, or imprisonment for seven years or more, the punishment may be imprisonment for life.

LEAKING ROOF—UNDERDRAINING LEVEL CLAY.

1. Would it be advisable to put coal tar on a shingle roof that leaks because it is too flat, there being four feet of a raise in eighteen feet of roof? Could you suggest anything better? The shingles are not much worn.

2. Would it be advisable to use basswood for siding a house, providing it is kept painted?

3. Do the machines for mixing cement give satisfaction? If so, where can they be bought?

4. If British Columbia cedar shingles be used on a house, how long before the water off the roof will cease to taste of cedar?

5. Please give us what information you can in regard to underdraining clay soil that is very level and not much fall at outlet.

Ans.—1. We have known of several instances of coal tar being used on shingles, with disappointing results in every case. It tends to rot the shingles above where it is applied, and is liable to melt from heat of sun and run into eavetroughs. If you can locate the leaks, you might try strips of zinc or galvanized iron, two or three inches wide, shoved up between the shingles.

2. Basswood lumber is very liable to curl in wet weather, and except kept very thoroughly painted, indeed, had better not be used.

3. Cement mixing machines work well. Will those who have them for sale make it known in our advertising columns.

4. A dealer, whom we asked, said that a couple of good rains would take all taste out.

5. No one should be deterred from draining because the ground is level, if an outlet can be secured. We knew of a drain that was put across a forty-rod field with only one inch of fall, and it worked well. In such a case a larger-sized tile must be used than where there is free run. If subsoil is porous, drains, if possible, should be three feet deep. Dig when there is water in the ground so as to secure accuracy of levels, and be sure of sufficient fall. Leading drain may be put nearly level, branches with a slight fall and a little drop where they join the leader, and junctions should not be at right angles, but with some slant.

Page Metal Gates—Good—Cheap

Page Gates have the best quality of steel frames, and are put together in a superior way. The filling is galvanized steel wire, and this filling is so fine in mesh that chickens or smallest pigs cannot get through. They have double steel braces, each having a strength of 3,500 lbs. Hinges and latch are of the best known design.

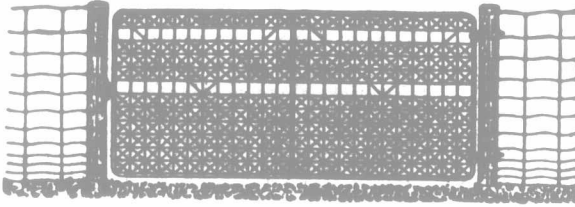
These are some of the reasons why Page Gates are the best.

We are now supplying these gates at only a little more than you would pay for hinges and latch at a store to make your own gate. THINK OF IT:—A complete Walk Gate all metal, everlasting, ornamental, perfect, for \$2.00 (see price list), or a large Farm Gate for \$5.25. At these prices you should show good business sense by using our gates everywhere on the farm that gates are needed. To prove what we say, look at the following prices for delivery at any station east of Port Arthur, at which we or our local dealer can supply you.

PRICE LIST OF SINGLE GATES

HEIGHT Being actual height of gate	Width of Gate, including Hinges and Latch, being exact distance Posts should be set apart												
	3 ft.	3 1/2 ft.	4 ft.	4 1/2 ft.	5 ft.	6 ft.	7 ft.	8 ft.	10 ft.	11 ft.	12 ft.	13 ft.	14 ft.
36 inches.....	\$1.75	*\$2.00	*\$2.25	*\$2.50	*\$2.75	.....	.....	.....	.....	.....	.....	.....	.....
42 inches.....	2.00	2.25	*2.50	*2.75	3.00	.....	.....	.....	\$5.00	.....	.....	.....	.....
48 inches.....	2.25	2.50	2.75	3.00	3.25	\$3.75	\$4.00	\$4.50	\$5.00	\$5.25	\$6.00	\$6.25	\$6.50
57 inches.....	2.50	2.75	3.00	3.25	3.50	4.00	4.50	4.75	5.50	6.00	6.25	6.50	6.75

The * indicates that we manufacture but do not keep in stock. Prices of odd sizes made as ordered at 75 cents above a proportionate price. Price of double gate same as that of two singles. Scroll tops 20c. per running foot extra.



NOTE.—All Page Gates and Fences are now painted WHITE. We have adopted this as a distinguishing mark for our goods. Remember, get WHITE Fence and Gates, and you will have PAGE Fences and Gates—the best.

THE PAGE WIRE FENCE CO. LIMITED
WALKERVILLE, ONT.

BRANCHES: MONTREAL TORONTO ST. JOHN WINNIPEG

“Page Fences Wear Best.”

Spring Grove Stock Farm
SHORTHORN CATTLE & LINCOLN SHEEP.



First herd prize and sweepstake, Toronto Exhibition, 3 years in succession. Herd headed by the imported Duthie-bred bull, Rosy Morning, and White Hall Ramden. Present crop of calves sired by Imp. Prince Sunbeam, 1st Toronto, 1902. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply

T. E. ROBSON, ILBERTON, ONT.

MOUNTAIN VIEW SHORTHORNS

Imported and home-bred, male and female, prize and sweepstake winners, various ages. Anything for sale.

S. J. McKNIGHT, Epping P. O., Thornbury Station.

SHORTHORNS
Clydesdales and Yorkshires.

A few fillies for sale. Also 50 Large English Yorkshires, all imported or bred from imported stock. Will sell cheap, as intend to leave the farm in spring.

ALEX. ISAAC, Cobourg P. O. and Station, Ontario.

SHORTHORNS!

One red bull calf, and one red three-year-old heifer to calf May 1st. All from good milking strain. To be sold cheap.

GLENAVON STOCK FARM, W. B. Roberts, St. Thomas Sta., Sparta P. O.

SHORTHORNS and CLYDESDALES

Spicy Count (Imp.) 5 thick, fleshy bulls, 12 months old; a few heifers and 8 splendid Clydesdales; 3 mares registered. All young.

JAS. McARTHUR, Pine Grove Stock Farm, GOBLE'S, ONT.

SHORTHORNS & CLYDESDALES Present offerings, a few young bulls, sired by Prince of Banff (Imp.), also one registered Clydesdale stallion, rising 2 years. Prices low, considering quality.

DAVID HILL, Staffs, Ont.

ELMHEDGE SCOTCH SHORTHORNS. Stanfords, Minnas, Nonpareils, Crimson Flowers, Marr Floras and Lavinias. Our herd will stand comparison with any. We reserve nothing; 45 head of both sexes, all ages, for sale. **James Bowes, Strathairn P. O., Meaford Sta.**

SHORTHORNS

Still have a few good young bulls to offer. Also an exceptionally good lot of heifers, among which there are show animals. Prices easy.

CATALOGUE.

H. CARGILL & SON, CARGILL, ONT. JOHN CLANCY, Manager.

MAPLE SHADE SHORTHORNS



Nine young bulls fit for service. Showing the finest Cruickshank breeding.

Good Size, Quality, Flesh and Bone.

Inspection invited. Catalogues on application.

JOHN DRYDEN & SON, Brooklyn P. O., Ont.

PINE GROVE STOCK FARM, ROOKLAND, ONTARIO, CANADA. Breeders of choice

SCOTCH SHORTHORNS and SHROPSHIRE.

W. C. EDWARDS & CO., Ltd., Props. JOSEPH W. BARNET, Manager.

T. DOUGLAS & SONS, Strathroy, Ontario.

SHORTHORNS and CLYDESDALES

Present offerings: 12 young bulls of No. 1 quality, ready for immediate service; also cows and heifers of all ages. Also one imp. stallion and two brood mares. Prices reasonable. Visitors welcome. Farm one mile from town.

Barren Cow Cure makes any animal under 10 years old breed, or refund money. Given in feed twice a day. “With your Barren Cow Cure I succeeded in getting two of my cows in calf—one 10 years old, and had previously been served repeatedly, to no purpose”—says M. E. Reeder, Muncy, Pa. Particulars from **L. F. SELLACK, Morrisburg, Ont.**

15 YOUNG BULLS



Mostly imported and from imp. sire and dam. Also a choice lot of cows and heifers.

All Scotch

ARTHUR JOHNSTON, GREENWOOD, ONT. Pickering, G. T. R. Clarendon, C. P. R.

MAPLE LODGE STOCK FARM 1854.

Eight very choice young bulls, of the best breeding and from first-class milking cows. A few handsome heifers also for sale, and a few Leicester. om

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

14 Shorthorn Bulls

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

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

SHORTHORNS FOR SALE.

Three bulls about 10 months old, two roans and one red; 5 one-year-old heifers; 6 heifer calves, all sired by Imp. Diamond Jubilee. Also a few choice cows carrying calves or with calves at foot. For prices, apply to **FITZGERALD BROS., Mt. St. Louis P. O., Clenvale Stn., Hillsdale Telegraph Office.**

DON'T WAIT BE UP-TO-DATE

And buy some choice young Jerseys. Two bulls and a number of A No. 1 cows and heifers from great milkers. Also collie pups.

W. W. EVERITT, Dun-edin Park Farm Box 552, Chatham, Ont.

What Offers for the Golden Lad—Nameless bull “Golden Name,” dropped May 5th, 1901. Sire “Great Name” (imp.), dam “Mystery of Amherst” (imp.), bred by Charles Lantz Estate. To avoid inbreeding, I am prepared to sell this bull cheap. His stock is O. K.

F. S. WETHERALL, Cookshire, Que. Rushton Farm.

140 - JERSEYS - 140 to choose from. 74 First Prizes, 1904. We have what you want, male or female.

B. H. BULL & Son, Brampton, Ont. Phone 68.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

QUESTIONS AND ANSWERS. Miscellaneous.

CHECK-ROW CORN PLANTER.

Could you furnish me with the address of any firm in Canada that manufacture corn planters which plant two rows at once and measure the distance with wire? If not in Canada, where are they made? I would prefer Canadian, if I could get one. I would like to plant in rows, both ways, but find it slow work with any machine I have been able to get.

G. F. M.

Ans.—The Cockshutt Plow Co., Ltd., Brantford, Ont., are the only Canadian firm we know of manufacturing such planters, though several American makes are handled in this country by various implement firms.

CORN FOR ENSILAGE.

What kind of corn would you advise sowing in this part of Ontario—corn to be put into silo? Is it good to grow heavy stalks, such as Leaming's, for silo? Where can I buy good seed, seed that I can rely on?

G. A. S.

Renfrew Co., Ont.

Ans.—1. The experience of your neighbors would be a safer guide than any speculation we might venture. Not only does the climate vary widely in the different counties, but different situations in the same county favor different varieties. Grow a variety which is pretty sure to reach the boiling, or better still, the roasting stage. White Cap Yellow Dent, North Star Yellow Dent, Compton's Early and King Phillip would probably be best for you. It is possible that Wisconsin Earliest White Dent, an excellent medium late variety, might be worth trying.

2. Leaming is an excellent variety, where it matures sufficiently. We would not recommend it for Renfrew.

3. You will find seed corn specially advertised in the "Farmer's Advocate" by two reliable seedsmen, W. R. Roberts, Sparta, Ont., and E. R. Ulrich & Sons, Springfield, Ill. Wm. Ewing & Co., 142 to 146 McGill St., Montreal, also handle it. Order early, and make a germination test before planting. Farmers and seedsmen should note this enquiry. Those having any quantity might profitably use our advertising columns.

CURE FOR POTATO SCAB.

Can some reader of the "Farmer's Advocate" give a remedy or preventive for potato scab? In 1904, I planted potatoes on sod plowed in the spring. They were nearly all scabby. In 1903, I planted them on land that was plowed in the fall, and they were also scabby. In both cases the land was manured in the spring.

F. W. G.

Oxford Co., Ont.

Ans.—Potato scab is caused by a fungus, which is always present on scabby tubers and in the soil which grew them, where it may remain, according to T. B. Terry, for at least three years. It is especially prevalent in soil which has grown potatoes repeatedly, but it may be conveyed by water from infected soil. The spores may be consumed by stock, and, passing through into the manure, reach and infest the soil through this medium. Probably for this reason mainly, applications of fresh manure have the effect of increasing the chance of scab, and growers advise strongly against it. The fact that F. W. G. applied manure in spring is sufficient to account for his trouble. An alkaline condition of the soil is favorable to the growth of the organism, hence, manuring with ashes and lime, which neutralize the acidity, increases the danger of scab. Remedial measures consist in avoiding the causes: using no manure for at least a year previous, and no ashes or lime. Do not plant on scab-infested fields. Plowing under a crop of rye, or the growth on a strawberry bed is highly recommended. If clean seed cannot be obtained, scabby tubers may be made as good as clean ones for planting by soaking for two hours in a solution of commercial formalin, 8 ozs. to 15 gallons of water; or corrosive sublimate, 2 ozs. in 16 gallons, 1½ hours. We advise formalin, as it is neither poisonous nor corrosive. Corrosive sublimate is a deadly poison and corrodes metal. In either treatment, allow the potatoes to dry before cutting, and bury any of the remaining solution in a hole in the ground. To plant scabby potatoes without treating is to sow scab.

Try Gin Pills

at our expense

We want every man and woman in Canada who suffers from Kidney and Bladder Troubles, to write us for a free sample of Gin Pills.

We want everyone who has sick friends to send us their names and addresses, that we may mail them, free of charge, a sample box of Gin Pills.

100,000 Sample Boxes Given Away.

There are hundreds who are martyrs to Kidney Trouble, having tried everything else without relief. There are dozens in every town who may have Kidney Trouble without knowing it. If you are pale—losing flesh—can't sleep—no appetite—if you constantly desire to urinate—if the urine is scanty, burning or highly colored—if the feet and hands are swollen—if the eyesight is dimmed—if there are frequent pains in the back, through the hips and legs—then you have the most positive symptoms of Kidney Trouble.

These are the people, we hope, who will send in their names that Gin Pills may cure them.

What They Are

Each Gin Pill contains the medicinal properties of one and one-half ounces of best Holland Gin. The harmful substances—and the alcohol—are left out. These medicinal principles are combined with several other remedies of exceptional value—and the whole made up in the form of a small, pleasant pill. These are the famous Gin Pills that have the largest sale—and the greatest number of cures to their credit—of any Kidney and Bladder remedy, ever introduced in Canada.

Won't you try Gin Pills at our expense? It costs nothing. Simply a post card. Ask us to send a sample box free—say in what paper you saw this advertisement—and sign your name and address. Do it to-day—NOW.

What They Do

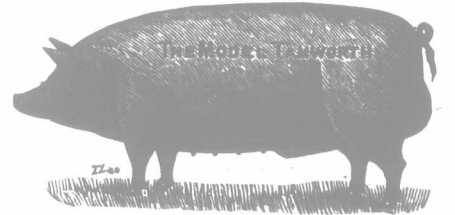
Gin Pills cure "Cold on the Kidneys," Inflammation of the Kidneys, Uric Acid, causing Gout and Rheumatism, Ulceration and Inflammation of the Bladder, Painful and Suppressed Urine, constant desire to urinate, Gravel or Stone in the Bladder, and all other troubles, caused by sick Kidneys and Bladder. They never fail to relieve the sharp, shooting pain, make urination easy, natural and regular, strengthen the organs, and effect a speedy and permanent cure.

BOLE DRUG CO., Dept. V, Winnipeg, Man.

HILLOREST HERD OF ENGLISH BERKSHIRES

JNO. LAHMER, Vine P. O.
Vine and Craigvale stations, G. T. R.

For Sale: At very reasonable prices, for immediate delivery, young boars ready for service, nice straight growthy fellows, with good bone and well haired.



Improved Chester Whites and Tamworths
From this herd have been winners at leading exhibitions of Ontario and Quebec for a number of years. New importations, direct from England, will arrive in May. We have for sale choice lot of young sows, bred; also boars, 3 to 4 months old. Am booking orders for spring pigs. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe arrival guaranteed.

H. GEORGE & SONS, Crampton, Ont.

Oakdale Berkshires

Of the largest strains. Imported fresh from England. The produce of these and other noted winners for sale reasonable. Let me book your order for a pair or trio not akin.

L. E. MORGAN, Milliken Stn. and P.O.

RIVER VIEW FARM

ROBERT CLARKE,
Importer and Breeder of
Chester White Swine
Pigs shipped not akin to each other. For price and particulars, write

41 COOPER STREET, OTTAWA, ONT.

ENGLISH BERKSHIRES.

Her Grace the Duchess of Devonshire's Berkshire Herd. Winners of 102 awards in 1904, including champion against all breeds in carcass competition, London Fat Stock Show. The breeding sows are sired by the champion boar, Baron Kitchener 8403. Polegate Decoy, Polegate Dame, Polegate Dawn—winners in England, Canada and United States—were exported from this herd. For prices and particulars apply to: Compton Estate Office, Eastbourne, or to F. A. Walling, 7 Cavendish Cottages, Eastbourne, Sussex, England.

GLENBURN HERD OF

YORKSHIRES

winners of gold medal three years in succession, offers for sale until New Year's a number of fine young sows and boars, from 3 to 4 months old, at \$12 each.

DAVID BARR, Jr., Box 3, Renfrew P. O.

For Sale—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigrees and safe delivery guaranteed. Address: E. D. GEORGE, Putnam, Ont.

PRICE LIST. McDOUGALL'S SHEEP DIP

Liquid, Paste and Solid.
20 oz tin, liquid, 35c.; ½ gal. tin, liquid, \$1.25;
1 gal. tin, liquid, \$2.25; 20 oz tin, paste, 35c.;
5 lb. tin, paste, \$1.25; 10 lb. tin, paste, \$2.25;
1 lb. block, solid, 25c.; 5 lb. block, solid, \$1.00.
Sold by druggists and dealers, or charges prepaid on 1 gal. or 10 lbs.

THE WORTHINGTON DRUG CO., Guelph, Ont.,
General Agents.

Dorset Sheep and Large Yorkshires. A couple of shearing rams and a few young sows, at prices consistent with quality. Write
ELMER DYMENT,
Copetown P. O.

Grand Champion over all breeds at St. Louis World's Fair from our flock. SOUTH DOWNS and HAMPSHIRE for sale. Write for what you want.
TELFER BROS.,
Springfield Farm, Paris, Ont.

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We have for quick sale some 50 head of Tamworth swine at all ages, including boars and sows ready to wean, several from 3 to 7 months old; also several of our prizewinners at Toronto under 6 months. A few nice sows due to farrow in March and April. These are nearly all the direct get of Cowill's Choice, our sweepstakes boar at Toronto for several years. Also several Shorthorn bull calves, about a year old, and just ready for service, besides a few choice heifers and cows in calf. All at moderate prices. All correspondence answered promptly. Write for what you want—we can generally supply you.

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Pigs of the most approved type, of both sexes, all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all Silver medals and Bacon prizes at Toronto and London and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champions and grand champions. Prices reasonable.

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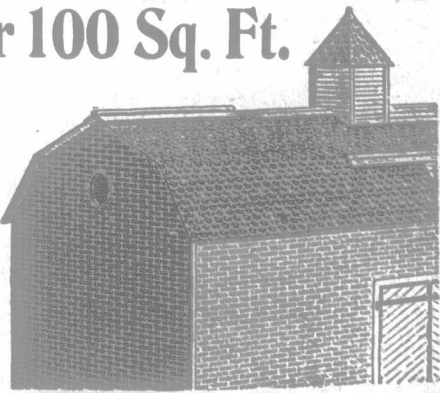
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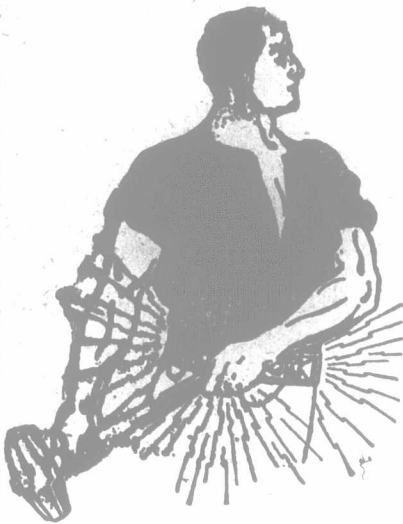
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has restored health and strength to thousands of weak and impotent men. If you use it as I direct it is a positive cure and cannot fail. It gives the vitalizing power of electricity, without burning or blistering, to every weakened part, developing the full vigor of manhood. It removes all the effects of indiscretions or excesses forever. I want every weak man who is not the man he should be to use one of my Belts, and, when he is cured, tell his friends of its wonderful effects. My Belt is also an absolute remedy for Nervous Debility, Backache, Rheumatism, Stomach, Liver, Kidney and Bladder troubles. It is arranged for women as well as men, and cures female weaknesses.

Various Forms of Rheumatism Cured.

Dr. McLaughlin: Dear Sir—I had rheumatism of both knees for six months so bad that I had to go about on crutches. I tried all kinds of medicine, but to no effect. I got your Belt and wore it for six or seven months, and am now free from rheumatism or sciatica, as I had also slight attacks of the latter. I have laid the Belt aside now for over a year, as I enjoy the best of health. If this letter will do your business any good, you have my permission to use it, as I am well known among railway men and others. Yours truly, J. BADGER, 58 1/2 Defoe street, Toronto, Ont.

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Dr. McLaughlin: Dear Sir—Since I commenced to use your Belt, I can faithfully say that it has done me a lot of good. My feet keep much warmer, and I do not have the cramps in my legs at nights as I used to. I am, yours sincerely, J. R. HESLAR, West London.

After you have read the above, write to me, explain your case, and I will at once tell you if I can cure you or not. To prove to you the confidence I have in the curative power of my Belt, I am willing to accept your case, and after I have cured you, then pay me. All I ask is reasonable security. You may then use my Belt at my risk, and

PAY WHEN CURED.

CAUTION. Beware of the man who offers to give you something for nothing. Nothing of value is given away. The "Free Belt" man (which in reality is only a scheme to foist some worthless article upon you at a small price), or the one offering a "just as good" belt for a few dollars, is not to be trusted. There is but one way to apply electricity properly in your case, and if you can't do that you had better not use it at all.

I have a new beautifully illustrated book which every man or woman ought to read. Cut out this coupon and I will send it to you.

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QUESTIONS AND ANSWERS. Miscellaneous.

UNSATISFACTORY HEIFER.

Who is liable in the following case of an imported heifer falling to breed? A, in Great Britain, sold cow with heifer calf at foot to B, who imported her to Canada, and sold calf to C, who kept her a year. C died, and his executors sold heifer to D, who kept her about a year, and sold her to E. D, before selling her to E, said that he would not guarantee her to be a breeder. E asked D if he had bred her, and D said that he had her served a few times, but she did not settle in calf. E asked if there appeared to be anything wrong. D said no, that she came in heat regularly, and there did not appear to be anything wrong further than she did not get in calf. E took her knowing these facts, and remarked, himself, that it was rather risky taking her. But, now, after he has tried her a few times, he is threatening to sell her for beef and come on D for the value of purchase price. Her price in each case of sale has been considerably over beef value.

SUBSCRIBER.

Ans.—There does not appear to be any legal liability on the part of any vendor mentioned in the statement.

PRESERVING MEAT IN SUMMER.

Kindly tell me the best method of salting beef so it will keep thoroughly during the summer; also the right quantities of water, salt and saltpetre for 100 lbs. of beef. Should the brine be boiled after the beef has been in it a certain time, and, if so, how often?

SUBSCRIBER.

Ans.—Prof. Boss at the live-stock conventions in Winnipeg recently gave the following as the formulae for preserving beef and pork for summer use:

To Preserve Beef.—Different ways of preserving meat were touched upon, but the way recommended as being the most convenient for winter was to cut the carcass into pieces small enough for roasting, boiling, etc., to freeze the pieces and then to pack in snow and leave in a cold place.

To pickle for summer, meat should be packed in a stone vessel or a sweet, clean barrel, the wood of which contains nothing likely to decay. For 100 lbs. meat, weigh out 8 lbs. salt, 4 lbs. brown sugar, and from 2 to 4 ounces of saltpetre. Rub as much of the 8 lbs. of salt as possible over the cut surface of the pieces and pack these into a barrel, the salt adhering. Let the meat stand over night so as to allow the salt to draw out all easily decaying substances. In the morning take 4 gallons of cold water, dissolve the sugar, the saltpetre and the balance of the salt, and turn the brine over the meat just as it stands in the barrel. This brine should cover the entire surface of the meat; if it does not do so, make enough additional brine from the same formula. It is very important that the pieces of meat should never have any surface exposed to the air, as the meat will become rusty, and the brine will all have to be renewed.

The saltpetre may be varied from two to four ounces, the former amount for winter and the latter for summer.

In corning beef that has commenced to spoil slightly, add 4 ounces of baking soda to the amount of brine already referred to. The baking soda might perhaps be used for all meat being put up for summer use.

The water need not be boiled for winter brine, but should be boiled for summer use.

The period during which the brine is most likely to spoil is April and May. If suspicious as to whether it is keeping properly, dip the finger in the brine and allow it to drip. If the drops are perfectly fluid, the brine is all right, but if the brine seems to be somewhat stringy, it should be removed and boiled.

Preserving Pork.—When pork is being preserved, instead of beef, the brine should in all cases be boiled, and the scum (if any) removed. Cool the brine before putting it over the meat. The salt rubbed over the pieces over night should not be used in the brine, but should be knocked off the pieces before the brine is used. If for the summer season, the salt for 100 lbs. of meat should be increased two pounds, and the sugar decreased two pounds.

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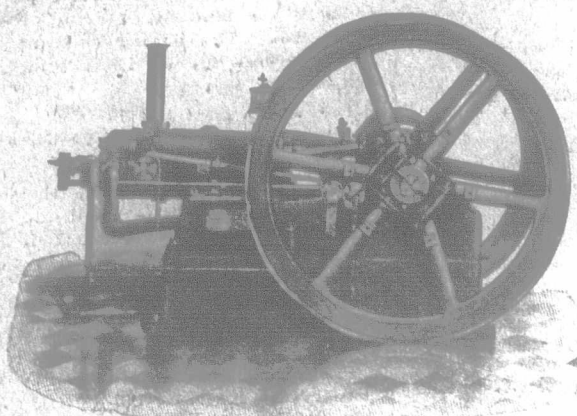
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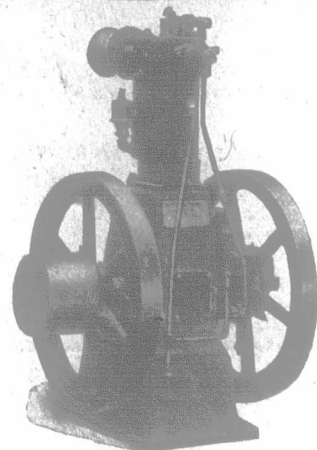
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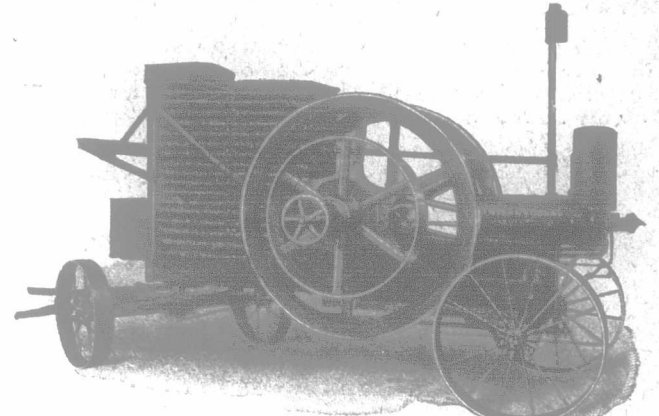
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