

PUBLISHED EVERY WEEK. \$1.50 PER YEAR.

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

PUBLISHED AT LONDON, ONTARIO. MAY 18, 1905. WINNIPEG, MANITOBA. No. 660

Best Salt

Windsor Salt

is famous for its purity and perfect quality. Butter-makers all over the Dominion say

Windsor Salt

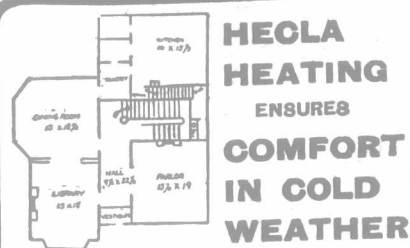
is the easiest to work, makes the most delicious butter, and is the cheapest in the end.

Ask your dealer for Windsor Salt

Rosthern

The Center of the Finest Wheat-growing District of Saskatchewan.

The Finest Farming Country in Western Canada. A gentle undulating prairie with a deep, rich, black loam soil, with a clay subsoil. There is still some good land available in this splendid district. Don't buy or locate anywhere until you have written the Secretary of the Board of Trade at Rosthern, who will be glad to send you full information regarding location, yields, price of lands, etc.



HECLA HEATING ENSURES COMFORT IN COLD WEATHER

The Hecla Warm Air Furnace will warm your house with less fuel than you use with stoves, with less trouble and without danger from gas or dust.

Our free booklet tells why. Ask for it, saying where you saw this ad.

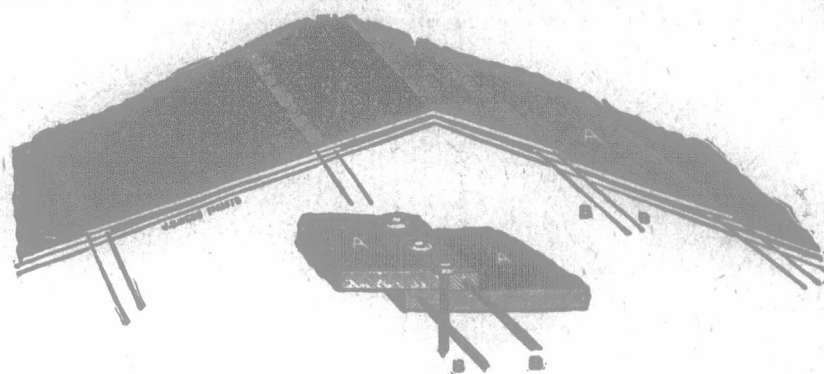
Clare Bros. & Co., Limited, Preston, Ont.

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

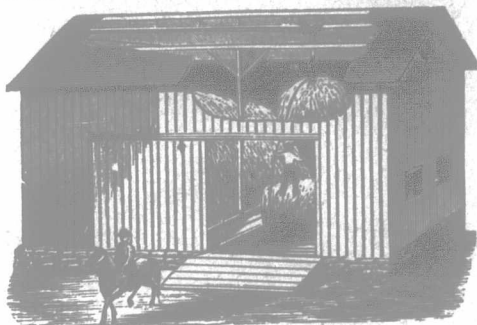


Don't cost as much as shingles. Made in Canada for 20 years. Fireproof and sanitary. Easy to put on. Hard to wear out.

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

The Paterson Mfg. Company,
TORONTO. Limited, MONTREAL.

The Wortman & Ward Co.'s Hay Fork Outfits



have been in the market for upwards of 25 years and have always been in the lead. There are many thousands in use in Canada, and they are known from the Atlantic to the Pacific as reliable in every respect. Hundreds of them bought 20 to 25 years ago and are still doing as good service as when first bought. There are forks that are lower in price, but if an extra investment of only a few dollars will secure a rig that will last a lifetime, the extra expenditure is certainly in the interest of economy. Agents located in all the principal towns. Others wanted. Send for booklet with full particulars to

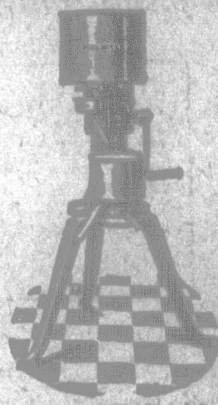
THE WORTMAN & WARD CO.,
541 York Street, London, Ont.

Be sure and use the Street No. with address.

HIRST'S PAIN EXTERMINATOR
THE GREATEST PAIN LINIMENT KNOWN

Melotte CREAM SEPARATORS

have been in constant use in thousands of homes in Ontario, Quebec and the Maritime Provinces for six years past, but not one cent has ever had to be paid for new bearings. The secret of this fact will appear in our next advt. or better, write now for booklet.



Stess A, B, C, with detachable bowl casing.

R. A. LISTER & Co., Ltd.
MONTREAL.

SHORTHAND IN 30 DAYS



A Position

paying \$800 per year in 28 days, is what graduates in

BOYD'S SYLLABIC SHORTHAND have secured. Is it worth your while to learn SYLLABIC? Write at once for our special offer.

MOON'S CORRESPONDENCE SCHOOL,
KARN HALL, MONTREAL, W. T. Moon, Pres.

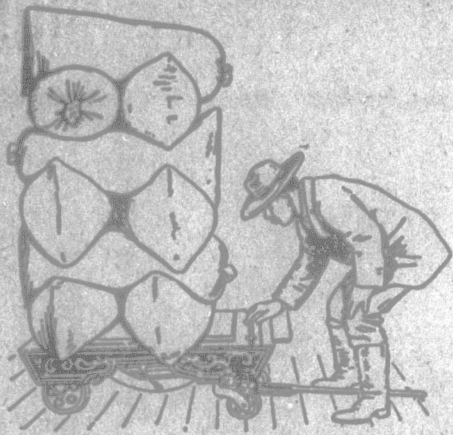
THREE IN ONE

Farmer Brighton Humane Swine V
Farmer Brighton Cattle Marker
Farmer Brighton Cattle Dehorner

Write for circulars and prices.
Manufactured by
LOUDEN MACHINERY CO., Guelph, Ont.,
Who manufacture the largest and best-assorted line of Hay Carriers, Barn-Door Hangers, Feed and Little Carriers, Barn Door Latches, etc. in Canada. Write for catalogues and circulars.

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

Know the weight of what you buy or sell



Wagon Scale, 4 wheels, 7000 lbs. capacity.

Every farmer should own a **SCALE** that will insure protection against loss when selling or imposition when buying his many farm products or supplies.

Constant watchfulness for little business "leaks" is necessary for farming success.

Large losses must be stopped first, but it doesn't take long for a few trifling leaks, here and there, to become large losses too, in the aggregate.

It is not an uncommon thing for a buyer's scale to "weigh short" 5 per cent., while it occasionally happens that the shortage reaches 7 or 8 per cent.

Let us see what it means to you if you get cheated even so little as the lowest estimate, 5 per cent. If your total grain sales were \$1000.00 yearly, 5 per cent. short weight would mean a loss of \$50.00; on \$400.00 worth of poultry the loss would be \$20.00; on \$200.00 worth of butter it would be \$10.00; on \$1000.00 worth of other miscellaneous farm produce, sold by weight, \$50.00. This would mean a total loss of \$130.00 from petty shortages in weight on a moderate sized farm. Imagine what it would figure at 8 per cent.

What can be saved in one year would pay for a Chatham Scale several times over. Can you afford to be without one when you can buy a

Chatham Farm Scale

On Two Years' Time, No Cash to Pay until Nov., 1905

A scale is as necessary on a farm as in a store. There is not a day in the year that a farmer doesn't lose some money if he doesn't own one. After the first year a Chatham Farm Scale becomes a money maker as well as a money saver, for, having paid for itself in one year, and still making money by saving it, that money goes into the bank and draws interest.

No Cash Required until Nov., 1905

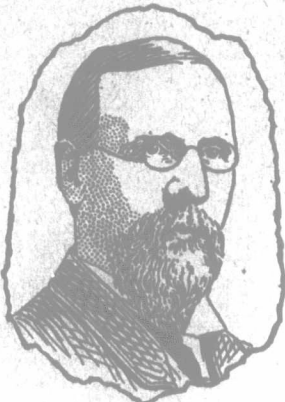
Don't be without a good farm scale, and, while you're about it, get the best—the Chatham.

This Scale is made in two styles—two-wheel Truck Scale and four-wheel Wagon Scale. Both are fully set up, ready for use, when shipped. They are mechanically perfect, all pivots and bearings being protected from damp and dirt, and the parts interchangeable—and easily replaced. It is the simplest and handiest scale made. Drop a lever and it becomes a strong truck; raise the lever and you have an accurately adjusted, perfectly constructed farm scale.

When the lever is dropped, no weight or wear comes upon the knife edges of the scale. No other farm scale has this feature, by virtue of which our scale averages to wear years before the pivots get dull.

Every Chatham Farm Scale is carefully tested by the Government Inspector of Weights and Measures, and carries his certificate of accuracy.

We have a booklet giving full particulars FREE. Send for it to-day.



MANSON CAMPBELL.

The MANSON CAMPBELL CO., Limited

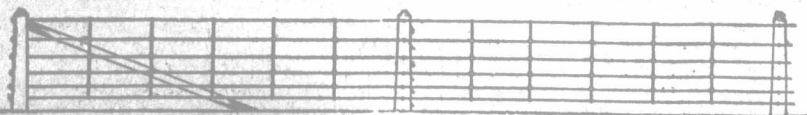
CHATHAM, CANADA

Dept. No. 302

Manufacturers of the Chatham Incubators and Brooders and the Chatham Fanning Mill

Distributing Warehouses at Montreal, Que., Brandon, Man., Calgary, Alta., New Westminster, B.C., Halifax, N.S.

AGENTS WANTED. Good men who show evidence of true salesmanship will be offered special inducements. 607



THE ANCHOR WIRE FENCE

Is the strongest and best farm fence on the market. It is made throughout of No. 9 galvanized steel wire, either plain or coiled, but heavier uprights may be used if desired. Any intelligent person can construct the fence by following directions as given in our free catalogue. Agents wanted.

GATES AND FENCE WIRE FOR SALE.

ESPLEN, FRAME & COMPANY, STRATFORD, ONT.

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The Railways Look to Permanency

They are the largest users of fencing in the country, and investigate thoroughly the merits of the fence they use. More "Ideal" fencing is being used by the railways this year than any other make, demonstrating its superiority. Investigation has shown that it decreases the cost of maintenance.

Farmers who purchase "Ideal" are not experimenting. "Ideal" is made of No. 9 galvanized steel wire throughout.

A postal card will bring FREE our Illustrated Catalogue of Fencing and Gates. Write for it to-day.

THE MCGREGOR-RANWELL FENCE CO., LTD., Walkerville, Ont.
DO NOT EXPERIMENT. BUY THE "IDEAL."

Galvanized Steel Siding

LASTS A LIFE TIME

Applicable to Dwelling Houses, Stores, Factories, Warehouses—in fact, every kind of building. There is no limit to its use as an outside covering. It very materially enhances the appearance of any structure at the minimum of cost.

Greater protection is afforded against the ravages of fire, hence less money need be squandered in fire risk premiums.

The Classic Kids will gladly furnish details.

GALT ART METAL CO., Limited, GALT, ONT.

THE PIONEER SEED HOUSE OF CANADA

BRUCE'S NEW CENTURY SWEDE TURNIP

After carefully testing this variety for four years, we have no hesitation in offering it as the very best shipping variety on the market, while for cooking purposes it excels all the ordinary Swedes. It is a purple-topped Swede resembling the Westbury, of splendid uniform growth, and of fine quality, and the roots are clean and well-shaped. It is the best Swede we know of to resist mildew, and is a very heavy cropper. All that have grown it will have no other.

Prices: 1 lb., 12c.; 1/2 lb., 19c.; 1 lb., 30c.; 4 lbs., \$1.10, postpaid.

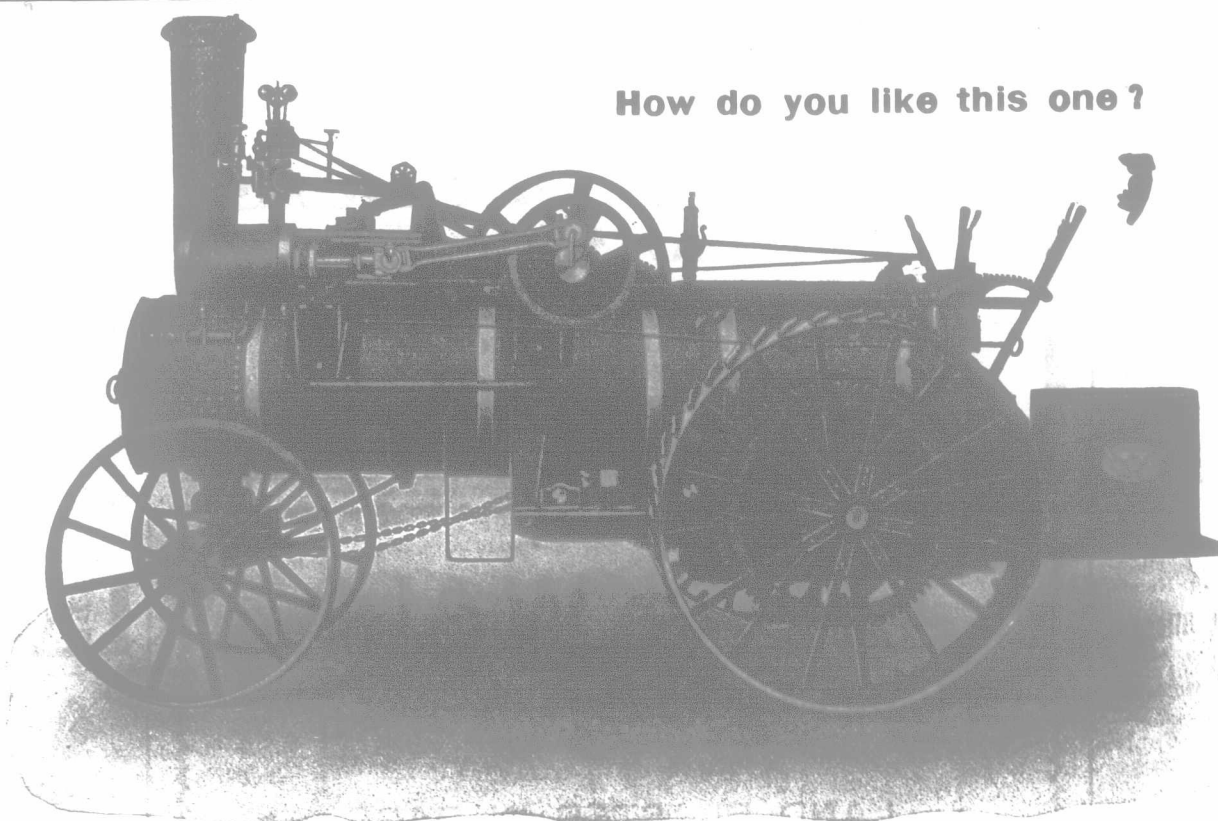
Our beautifully-illustrated Catalogue of Seeds—88 pages—mailed free to all applicants.

JOHN A. BRUCE & CO.,
Established 1850.
HAMILTON, ONT. CANADA.

CANADIAN ENGINES FOR **Canadian Threshermen**
WHITE ENGINES

Don't forget the fact that there is only one place to get "THE FIRST QUALITY LINE"

at



How do you like this one?

Have you received our 1905 catalogue explaining some of our good things?

It will pay you to investigate it.

WRITE FOR OUR THRESHERS' ACCOUNT BOOKS—FREE!

The George White & Sons Co., Ltd., London, Ontario.

WINDMILLS

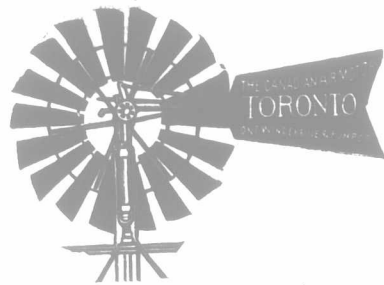


Grain Grinders,
Gas & Gasoline Engines,
Tanks,
Bee Supplies,
Etc.

WRITE FOR CATALOGUES.

Gould, Shapley & Muir Co., Ltd.
BRANTFORD, CANADA.

WINDMILLS

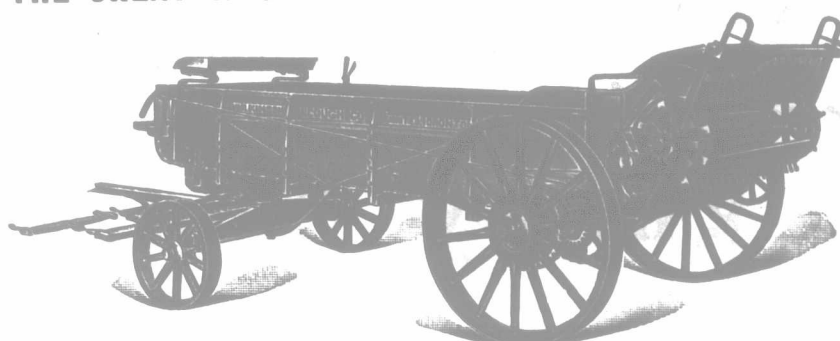


A Canadian Airmotor
Is as Good as a Hired Man

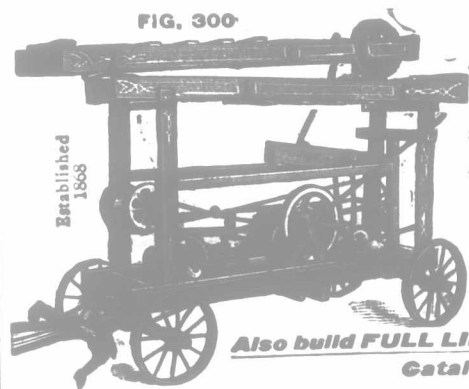
Grinds, and Pumps Water. RUNS (Straw Cutter, Pulper, Grindstone, etc.)
SAVES YOUR MUSCLES, TIME, MONEY.

Ontario Wind Engine & Pump Co., Limited, Toronto.

THE GREAT WESTERN ENDLESS APRON MANURE SPREADER



Saves time, labor and manure—therefore saves you money.
Spreads all kinds of manure and commercial fertilizer, and does it WELL.
Write for prices and see our catalogue before buying.
Complete satisfaction guaranteed, or no sale.
THE WILKINSON PLOUGH CO., Limited, - Toronto, Canada.



THE American Well Works
AURORA, ILL., U. S. A.
CHICAGO, ILL. DALLAS, TEXAS,
Build the Standard BORING, CORING or ROCK PROSPECTING MACHINERY
Your Traction Farm Engine will successfully drive, in prospecting, that OIL, GAS or WATER problem.
Also build FULL LINE heavy PUMPING MACHINERY.
Catalog mailed on request.

If You Have a Farm for Sale

Or Want a Situation, put an Advertisement in our WANT AND FOR SALE COLUMN. Our Want Ads. Always Bring the Best Results.
The William Weld Co., Limited, London, Ontario.

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The BEST Summer HORSE SHOW

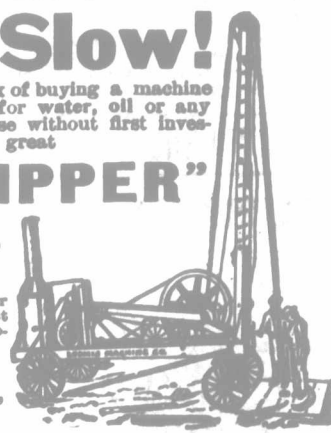
QUELPH, ONT.
June 7th, 8th and 9th, 1905
WEDNESDAY, THURSDAY, FRIDAY.
Enabling exhibitors to get home on Saturday.
BIG PRIZES AND GOOD JUDGING
Special rates on railroads.
Send for Prize List to
ALEX. STEWART, Sec., Guelph, Ont.

Go Slow!

Do not think of buying a machine for drilling for water, oil or any other purpose without first investigating our great

"CLIPPER"

and "Advance" Machines.
They are by far the greatest Drills ever produced.
LOOMIS MACHINE CO., TIFFIN, OHIO.



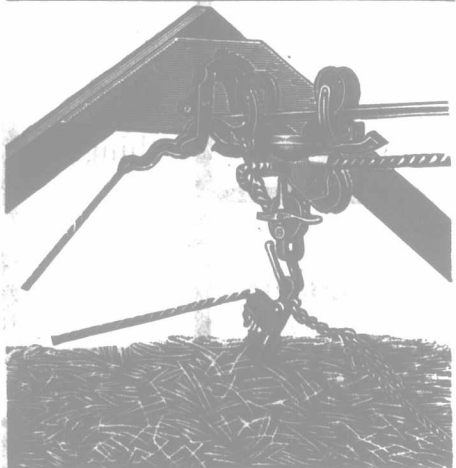
A Good Head of Hair

Prof. Long's Magnetic Combs create a good growth of hair. Cure dandruff. 32 styles. Send 25c. for sample 50c. handsome dressing comb. Agents wanted all over Canada. Sell quick. Best-paying work this year. o
Magnetic Comb Co., - St. Thomas, Ont.

HAVE YOU A BAD LEG



With Wounds that discharge or otherwise, perhaps surrounded with inflammation and swollen that when you press your finger on the inflamed part it leaves the impression! If so, under the skin you have poison that defies all the remedies you have tried, which, if not extracted, you never can recover, but go on suffering till death releases you. Perhaps your knees are swollen, the joints being ulcerated, the same with the ankles, round which the skin may be discolored, or there may be wounds; the disease if allowed to continue, will deprive you of the power to walk. You may have attended various hospitals and had medical advice and been told your case is hopeless, or advised to submit to amputation; but do not, for I can cure you. I don't say perhaps, but I will. Because others have failed, it is no reason I should. Send at once to the Drug Stores for ALBERTS' Grasshopper Ointment and Pills, which is a certain remedy for the cure of Bad Legs, Housemaids' Knees, Ulcerated Joints, Caruncles, Poisoned Hands, Abscesses, Corns and Bunions, Snake, Mosquito and Insect Bites, or write ALBERTS, 73 Farringdon street London, England. Agents: Evans Sons & Co., Montreal; Lyman Sons & Co., Montreal; Parke & Parke, Hamilton, Ont.



THE OSHAWA ROD TRACK CARRIER FOR 1905

Manufactured by THE OSHAWA HAY CARRIER WORKS, OSHAWA, CANADA. Agents wanted in unrepresented localities.

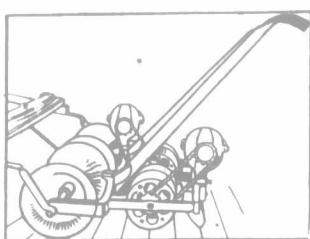
QUEENSTON CEMENT

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. Our barrel contains as many cubic inches as any other cement, and as cement is gauged by measure, not by weight, your cement will go as far. Write us for all information. Freight rates and estimates cheerfully given. 70c. per barrel, strictly cash, f.o.b. cars Queenston. Go in with your neighbor and get benefit of carload rates.

ISAAC USHER, Queenston, Ont.

TURNIP SOWERS



CHEAP (One-horse.)

Will sow before or behind the rollers.

Thoroughly tested.

Most complete.

W. P. PLANT, Hastings, Ont.

Stock Farm for Sale—Burnbrae Stock Farm, containing 149 acres, basement barn, dairy, hen ice and engine houses, 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, Vankeek Hill, Ont.



Grand Prize St. Louis—Paris—Highest Award Buffalo

TIME IS MONEY DeLAVAL Cream Separators

SAVE TIME

AND THAT'S NOT ALL CATALOGUE TELLS

THE DeLAVAL SEPARATOR CO.

77 York Street TORONTO

WINNIPEG

MONTREAL

"ROCKWALL"

Superior Hard Wall Plaster.

ALSO

LAND PLASTER IN BAGS

CONTRACTORS' SUPPLIES

Portland Cement

Fire Bricks

Founders' Clay, etc.

ALEX. BREMNER,

50 Bleury Street, MONTREAL, QUE.

Highway Bridges



Beam Spans Riveted Spans Through Spans

Pin Spans Swing Bridges Deck Spans

We manufacture and erect Structural Steel for office buildings, warehouses, mill buildings, power plants, etc., and also furnish miscellaneous structural jobs and orders, fitted or cut to size, as required by manufacturers, engineers, architects, contractors and builders. Prices, estimates, plans and other information cheerfully given on application.

HAMILTON BRIDGE WORKS CO.

HAMILTON, Limited CANADA.

BRITISH COLUMBIA

KELOWNA

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.

CARRUTHERS & POOLEY, Kelowna, B. C. Real Estate Agents.

YOUR ROOF

What's the test of a good roofing? First, wear and tear; second, reputation. "Paroid" has stood both tests for a good many years. Before you build new or repair old buildings, write us for free sample of

PAROID

and our booklet "Building Economy." It will help you in deciding the important question about roof covering. The difference in price between "PAROID" and the numerous imitations represents quality, not profit. Write today.

F. W. BIRD & SON, Makers

(Originators of the complete roofing kit-fixtures in every roll.)

Hamilton, Ontario, Canada. Established in U. S. 1817.

ROOFING

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 WON'T 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

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

TELEGRAPHERS

Have steady work at good pay the whole year round, with unexcelled opportunities for advancement. We can qualify you for a superior position in a few months. Our fine new illustrated telegraph book, giving Morse alphabet and full particulars, mailed free. Write today.

DOMINION SCHOOL OF TELEGRAPHY 9 East Adelaide St., Toronto, Ont.

Advertise in the Advocate

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The

Farmer's Advocate

and Home Magazine.

"PERSEVERE AND SUCCEED"

ESTABLISHED 1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

Vol. XL

LONDON, ONT., AND WINNIPEG, MAN., MAY 18, 1905

No. 660

EDITORIAL.

Regulation of Railway Rates.

As at present constituted, provision is made for an appeal from the decisions of the Canadian Railway Commission to the Governor-in-Council on matters of fact, and to the Supreme Court on matters of law. Thus far our new Railway Act has proven an efficient instrument, doing useful work. Some day a pronouncement will be made, probably on a most important matter, which the railways will resist, but there is, apparently, no good reason for any protracted delay in the redress of a grievance that should be summarily disposed of. Our American friends are realizing the need of a more complete subvention on the part of their Inter-State Commerce Commission, an instrument which, although it has done much to reform high rates, discrimination, and other transportation abuses, finds itself hampered by the courts, which virtually have the power of veto on all its decisions. Note the remarks of President Roosevelt, addressing the Chamber of Commerce, at Denver, Col., May 8th. After advocating the policy of extending the powers of the Commission and of giving it, particularly, the power to fix rates and have those rates go into effect practically at once, he continued:

"In the days of the fathers of the oldest among you, the highways of commerce for civilized nations were waterways and roads open to all who chose to travel upon them. Now the typical highway of commerce is the railroad, and under this changed system we see highways of commerce grow up, each of which is controlled by a single corporation or individual; sometimes several of them being controlled in combination by corporations or by a few individuals. When such is the case, in my judgment, it is absolutely necessary that the nation should assume a supervisory and regulatory function over the great corporations, which practically control the highways of commerce."

And a couple of days later U. S. Secretary Taft, at a dinner given by the American Railway Association, emphatically declared that railway rate legislation must come, and if the railway men of the country were wise they would aid, not hinder it; that the sentiment of the country was such that failure of proper regulation meant a campaign on the subject that would do no good to the railways. Though positively against Government ownership, he reminded his hearers that the public have rights which must be regarded. "You cannot run railroads," said he, "as you run a private business. You must respond to the public demand. If there is danger of discrimination, then you must allow the establishment of some tribunal that will remedy that discrimination."

In Canada of late we have had the opportunity of witnessing the concern of a prominent railway man, lest the vested rights of capital should be ignored by the rapidly crystallizing public opinion, to the detriment of the country's development through the timidity of investors. No one wishes to deny the capitalist the legitimate fruits of his enterprise, but the conviction is warranted that the moneyed classes have displayed a signal capacity to look after themselves, that they have, indeed, through their sovereign privileges, obtained rather more than is coming to them. It is time someone has the temerity to remind the capitalists that the country has a vested right in the railroads, by virtue of the millions of dollars of subsidies

granted them, to say nothing of the privilege the companies possess of levying on the commerce and industry of the community. By reason of the limited number of railways which a given territory can support, competition in land transportation is not usually a practicable remedy for grievances, hence the necessity for artificial control of a business which the ordinary laws of commerce are inadequate to regulate.

The franchises of the Canadian railways constitute an asset of enormous and ever-increasing value, and entitle the country to some voice in the regulation of tariffs which affect its prosperity more vitally even than that of the railways themselves. The carrying corporations derive, approximately, the same net profit from high rates on a small volume of traffic as from low rates on an increased volume, consequently they have no motive except good will to induce them to risk a dollar of possible revenue, by keeping rates low. Not so with the public, who have everything to gain from a reduction of tolls, and are thus interested in maintenance of rock-bottom charges. Only an impartial tribunal, with the most complete information and powers, is competent to adjust rates so as to secure to the public maximum concessions, without violating the legitimate rights of the railroad stockholders. Such an authoritative body we are supposed to have in the Railway Commission, and the country will expect it to exercise its functions with a fair but unflinching hand.

The Mission of the Cream Separator.

Elsewhere in this issue of the "Farmer's Advocate," Miss Laura Rose gives an interesting and helpful review of what the centrifugal cream separator has done for Canadian dairying. She has not overestimated the advantage that has come to the buttermaker through the application of this wonderful discovery whereby cream can be immediately extracted from milk, instead of depending upon the slow process of gravitation, with its attendant disabilities. In our report of a Quebec dairy meeting, Mr. A. A. Ayer, the Montreal produce exporter, condemned the farm separator system in creamery buttermaking, and commended the plan of having the whole milk separated at the factory, or, at all events, at large skimming stations. Where the milk supply is reasonably adjacent to the factory, the whole milk system has much to commend it. Miss Rose presents the case from the viewpoint of the farmer, and we apprehend that under a very wide range of conditions, he will be disposed to agree with her. In our judgment, the farm separator is here to stay. The problem is how to make the best of it. It is a permanency, because of its advantages to the farmer in securing more fat from the milk, a better quality of cream for farm buttermaking or other purposes, and what, with many, counts even more, because it assures sweet, fresh milk, for which the rising generation of calves and pigs are devoutly thankful.

Miss Rose does not shut her eyes to the obstacles likely to arise, but she credits the Canadian farmer with sufficient intelligence and determination to overcome them. Nor does she stop there; she sets forth in a very practical way how the farm separator should be used, and if her advice is faithfully carried out, we believe it will add materially to the life and efficiency of the separator on the farm, and also assist the creameryman most materially in his efforts to produce a uniform product of excellent quality under the gathered-cream system.

Why Do We Cultivate?

In this issue we print several letters from corn-growers, which we would advise others to read and ponder in the light of their own experience. It would seem that many have failed to grasp the importance of inter-tillage of growing crops, through not understanding the specific objects to be gained. Asked why they cultivate such crops, most men content themselves by saying that cultivation kills weeds, conserves moisture, and liberates plant food. The further question to ask ourselves is how cultivation liberates plant food. Without going into scientific details, we may simply enunciate the principle that tillage liberates plant food, indirectly, by bringing about in the soil laboratory physical conditions of heat, aeration and moisture favorable to the various bacterial and chemical processes by which the elements of fertility are made available to plant roots. Of the three essentials named, heat is supplied by the sun; air and moisture are also abundantly provided under primeval conditions, where a mulch of loose mould covers a soil filled with humus, which keeps it pervious and holds large quantities of moisture. Under field conditions, however, where the natural provisions have been destroyed, and the soil more or less depleted of its humus content, cultivation is necessary to prevent baking of the surface, thus serving the two purposes of admitting air and preserving the moisture below from the evaporating influences above. The importance of water, especially, can hardly be overestimated, for it serves a double function. Not only are hundreds of tons of it transpired by the plant, but, as pointed out above, the presence of considerable soil moisture is essential for the chemical changes by which fertility is made available. From the foregoing we can see clearly the urgent importance of frequent cultivation to prevent the formation of a crust, and keep the field continually covered with two or three inches of loose soil.

To this end, and also to destroy germinating weed seeds, nothing can equal that simple implement misnamed the weeder, which, though useless for rooting out large plants, is astonishingly efficacious as a weed preventive, and if used persistently on ordinary fall-plowed land, will almost obviate the necessity of the scuffer. With the weeder and a good horse, a man or boy can cover twelve or fifteen acres a day, and this, if done once or twice before the crop is up, and four or five times after, will keep the field cleaner, and do much more to promote the growth of corn or roots than an equal amount of time spent with a one-horse scuffer in the old-fashioned manner. Of course, best results will be obtained by employing both weeder and cultivator.

We are convinced that if farmers would do more calculating as to the probable advantages attending their various field operations, it would induce a greater readiness in discarding old, laborious methods. We are well aware that it is impossible to estimate exactly how much benefit will be derived from a proposed stroke with the cultivator, but the thrifty farmer should at least essay to satisfy himself whether his work is likely to be profitable or not, and the mental exercise will be attended by a number of indirect benefits. Among other things, it would induce, in many cases, the lengthening of rounds, and hasten the adoption of two indispensable adjuncts of economical corn culture, viz., the weeder and the two-horse cultivator; and, with conditions made favorable for the expeditious use of these, the result will be greater yields, with easier

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work and larger profits than in the old days of cheap labor but antiquated methods. Where a weeder is not included in the list of available farm tillage implements, effective work can be done by giving the corn field one or more strokes of the ordinary sweep harrow before and immediately after the corn is up.

Agricultural High Schools in Minnesota.

(Special correspondence.)

Something of a misconception has gone abroad with reference to the system of agricultural education in Minnesota, as conducted at the present time. The idea seems to have spread that Minnesota has adopted what may be termed a system of high school education in what pertains to agriculture. It originated, probably, in the name School of Agriculture, which forms a part of our comprehensive university system in Minnesota. We have no agricultural high schools as such in the State. To Wisconsin belongs the credit of introducing what may be termed the agricultural high school, as outlined below. At the session of our Legislature, which closed only a few weeks ago, an Act was passed setting aside an appropriation for the establishment of an agricultural school at Crookston, which will doubtless be of the high school order, but the details of management or course of study have not yet been worked out. It will probably be conducted somewhat after the methods followed in the Wisconsin schools.

Thus far the Minnesota system is in outline as follows: First, are the district schools, which correspond with the common schools in Canada; then follow the high schools, which correspond, more or less, with the same class of schools in Ontario; then there is the university, with its various departments. Intermediate, as it were, between the high schools and the university, are the normal schools, for the education of teachers. The district schools, of course, feed the high schools, and the latter the university. Owing to the way in which the course of study is arranged, it leads up step by step to matriculation in the university, and finally to graduation from the

same by those who pursue their studies until the goal is reached. The university virtually controls the final examinations at the high schools, and those who graduate therefrom are eligible to enter the university without further examination. The system thus far is one comprehensive whole, leading up from the kindergarten schools to graduation from the university. In this fact is one explanation, probably, of the very large attendance of students at the university—not less than something over four thousand.

The school of agriculture, though in a sense a part of the university proper, may also be called an advanced high school for imparting an agricultural education. Students may enter it from any source, who are able to pass the requisite examination, and graduates from the high schools may enter without further examination. It gives instruction to students of both sexes, largely on the same lines, except that the girl students take certain subjects pertaining to household science, and omit a very limited number of subjects pursued by the boys, more particularly those which are more or less concerned with outdoor manual labor. Those who complete the course of study at the school of agriculture, after a post-graduate course at the same, may enter the college of agriculture and graduate from it at the end of four years.

The regular course of study at the school of agriculture covers three years. It is designed to give an education that will fit the possessor for the intelligent pursuit of practical agriculture in its various phases. The terms for each year extend from the beginning of October to the end of March. There is a special course in dairying which is designed to prepare the students for practical work in creameries and cheese factories. A short course for farmers covers eight weeks, which anyone of sufficient age may take. There is also a two weeks' course in live-stock judging. The attendance of students in the regular course last winter was 530. In all the courses of study it was approximately 794. The college of agriculture is more particularly designed to prepare the students for teaching agriculture, or for pursuing the study of the same along scientific lines. As it virtually calls for an eight years' course from the time of entering the school of agriculture, the number, who have taken this course has not been very large, nor is it likely to become so, at least for many years to come.

The first county school of agriculture and domestic economy in America was opened at Wausau, Marathon County, Wisconsin, October 6th, 1902. A second school of the same class was opened at Menomonee, in Dunn County, somewhat later. The opening of these schools was authorized by the Legislature of 1901. The law of 1901 provided for State aid to the extent of over half the annual instructional expense, but neither school was to receive more than \$2,500 a year from the State. This law was amended in 1903, so as to increase the aid given from the State treasury to \$4,000 a year to each school, by way of maintenance. The county in which the school is located bears a part of the expense.

Provision is made for the union of two or more counties in the establishment of such schools, and for the apportionment of the cost. The course of study is outlined by law. Not less than three acres of land are required for illustration work. The school is free to all students from the counties which support it. The State superintendent is supervisor and instructor of the schools, and the Dean of the College of Agriculture may advise as to the courses of study and the qualifications of teachers. Provision has been made for the establishment and maintenance of four such schools within the State. Each school is under the control of a County School Board, elected from time to time. Schools are open each year from October 1st to near the end of May. The faculty of the school at Wausau consists of three persons, one in charge in the instruction in agriculture, who is also principal of the school; one in charge of the instruction in domestic economy, and a third in charge of the instruction of manual training. These are assisted by instructors, and all instructors teach academic subjects.

COURSE OF STUDY FOR BOYS.

First Year.

First Term.—The Soil, d. 5; Manual Training, Carpentry, d. 5; English, 5; Business Arithmetic, 5.

Second Term.—Soils and Fertilizers, d. 5; Manual Training, Carpentry, d. 5; English, 5; Library Reading, 5.

Third Term.—Plant Life, d. 5; Vegetable, Flower and Fruit Gardening, d. 5; Poultry, d. 3; English, 5; Library Reading, 2.

Second Year.

First Term.—Plant Life, d. 5; Manual Training, Blacksmithing, d. 5; U. S. History, 5; Economics, d. 3; Library Reading, 5.

Second Term.—Animal Husbandry, d. 5; Rural Architecture, d. 5; U. S. History and Civil Government, 5; Library Reading, 5.

Third Term.—Animal Husbandry, d. 5; Vegetable, Flower and Fruit Gardening, d. 5; Economics of Agriculture, 5; Library Reading, 5.

COURSE OF STUDY FOR GIRLS.

First Year.

First Term.—Cooking and Sewing, d. 5; Domestic Hygiene, 5; English, 5; Business Arithmetic, 5.

Second Term.—Cooking and Sewing, d. 5; House Economy, 5; English, 5; Library Reading, 5.

Third Term.—Cooking and Sewing, d. 5; Vegetable, Flower and Fruit Gardening, d. 5; English, 5; Library Reading, 5.

Second Year.

First Term.—Cooking and Sewing, d. 5; Laundry, d. 3; U. S. History, 5; Library Reading, 5.

Second Term.—Cooking and Sewing, d. 5; Chemistry of Foods, 5; U. S. History and Civil Government, 5; Library Reading, 5.

Third Term.—Cooking and Millinery, d. 3; Home Nursing, d. 2; Poultry, d. 3; Vegetable, Flower and Fruit Gardening, d. 5; Library Reading, 5.

The numerals denote the number of recitation periods per week; d. signifies double periods.

The course of study cannot, of course, be given in detail in this paper, but it is one of the most practical that has ever come under the notice of the writer. The attendance at the Wausau school in 1894 was 75, and the enrollment in 1905 is still larger. Nearly all the students come from Marathon County and from rural homes. Prof. R. B. Johns, the principal, is enthusiastic over the outlook for the future of the school.

The question of introducing the study of agriculture into the district schools of Minnesota has been considerably agitated, and a few years ago an appropriation was made for this purpose in a tentative way. But little progress, however, has been made in this direction. The successful introduction of this branch into the common or district schools has yet to be achieved in this country, nor is it likely to be achieved until the teachers in these schools are required to pass an examination in at least some of the branches of agriculture.

THOS. SHAW.

Organization for Purchasing Supplies.

Instead of dealing with co-operative organizations in their two general classes—those for buying and those for selling on the farmers' behalf—I am discussing them in the order of their present importance. Hence, before dealing with further problems of the disposal of products, this article will take up that large one of the purchase of supplies by co-operative organization.

It is safe to estimate the value of what Canadian farmers buy annually, exclusively for use in their farm business, at \$20,000,000. They imported over three million dollars' worth of implements, fertilizers and animal foods (for finishing) last year. In 1901 (year of last census) they bought of our own manufacturers over \$12,000,000 worth of similar articles. Add to these binder twine, power machinery, corn, salt, and other widely-used articles, and \$20,000,000 will hardly cover the total. It is worth considering whether the half-million farmers who spend this necessary and enormous sum of money are getting all they should in return.

It is clear to any business man that they are not. Anyone knows the difference between buying retail and buying wholesale. By the present system the farmers support an army of agents, and pay large profits to merchants as well as to manufacturers. We may divide that twenty millions into two parts: One the real, necessary costs of manufacture, plus a reasonable profit, over all other capital charges, of, say, 3%, which part will amount to \$12,000,000 at most; the other part, \$8,000,000, is now paid for costs of selling, risks of business due to present conditions of industry that co-operation would eliminate, and profits that are greater than is fair to the farmers, who are the chief wealth-producers. That \$8,000,000 can be saved by a complete organization of the farmers, according to the principles already shown to be absolutely proven. That would mean \$8,000,000 more yearly on the bank accounts of farmers, or that much applied to reduction of farm mortgages, or as extra capital on the farms.

If anyone doubts the possibility of such a large saving, estimated at 40% of the amount now expended, let him look at the evidences. At present, as business men know, the usual or average agent's commission is not less than 25% of the total cost; and this would be saved by buying co-operatively. Other expenses of selling, such as advertising, travellers or general agents, office staff necessary to present system, amount at least to 10% of the total. "Risks of capital," and profits above what is necessary for the farmers to pay, will easily amount to the remaining 5%. Recollect the great wealth of the Masseys, the McCormicks, and others, gathered as profits on dealings with farmers. Recollect the dividends paid by the Farmers' Binder Twine Co., amounting—as I believe they have boasted—to 400% on invested capital since the beginning, and to 100% in one year's dividend! If a concern which exists in the farmers' interest and wars against monopoly and the robber trusts will take such profits out of the farmers, what can we expect of the trusts and private enterprises? It is clear that the figures given are moderate.

And the remedy? Co-operation—the kind of co-operation these articles have been advocating—is the remedy. That is, all the farmers uniting in one vast organization to buy what they need from those who

manufacture such articles. Notice: It is neither necessary nor advisable for such a body of united farmers or any number of them to manufacture anything, but it is both advisable and necessary for them to buy thus co-operatively. The plant already manufacturing for the farmers is sufficient for that purpose. It is quite enough to bring the manufacturers to terms. And they will come to the farmers' terms; but only when the farmers compel them, and that can be done only by united action.

How to organize? That has already been outlined in a general way. Seven or more farmers organize themselves into an association for purchasing supplies for the members; directors are elected to carry on the business of the association; rules are framed and adopted governing the members and the directors, and the association and its rules are registered as any notary will prescribe. The important points to consider in organizing are:

1. Have the object of the association clearly defined: To make purchases of any kind whatever for the members; purchases of certain articles, such as harvesting and other machinery and implements, twine, salt, etc., to be made by members ONLY THROUGH THE ASSOCIATION, on pain of a fine or expulsion.
2. Have annual, or, at least, frequent changes of directors, to prevent certain difficulties that might arise, and to maintain interest of all members, as well as to familiarize them all in turn with the workings of co-operative business.
3. Empower directors to act freely in negotiations and all transactions on behalf of members, subject to certain conditions, as individual preferences for certain kinds of machinery, etc.
4. See that rules strictly maintain continued loyalty of every member who remains a member; and that said rules compel at least 12 months' determined and continued co-operative action as commenced.
5. Rules should also insist on cash dealings by members; that is, "cash or its equivalent," so as to prevent embarrassment of directors in making purchases for members.

6. Arrangements should be provided for federating with other SIMILAR ASSOCIATIONS.

7. Profits of business, if any, should be paid on ledger accounts and not on shares of association. Other rules should be adopted that are not necessary to detail here, but the above are assuredly essential to continued success.

Such a co-operative association can do profitable business at once, and by dealing with manufacturers direct can save all agents' commissions on everything bought. The larger its membership, of course, the more powerful and economical its operations will be. And when federated with others, its buying capacity bring increased, its influence on the manufacturers will be correspondingly greater, until, when all or nearly all the farmers of Canada are members of the federated associations, the savings effected could be named in millions of dollars.

It will be seen at once that this is a totally different remedy from that offered by such concerns as the Farmers' Binder Twine Company, the Farmers' Co-operative Harvesting Machine Co., etc., both because it is not a plan to manufacture but to buy all together, and because it aims to benefit, not investors of capital, but buyers of farm supplies only, and to benefit all such buyers as wish to be benefited, not merely a few special individuals among the many. Estimable as the companies named doubtless are, they are not the kind of co-operation we want, and can never do for us what we can and must do for ourselves.

It will be seen also that such an organization is not a repetition of the Grangers or the defunct Patrons of Industry, with their omnivorous capacity for undertaking everything at a gulp, and accomplishing less than they fail in accomplishing. Those enthusiastic and loosely-organized movements failed to gain their objects, because they had little to hold their members together except enthusiasm—and so were fore-doomed to failure. It cannot be too strongly emphasized that provision must be made and strictly enforced, binding those who join any co-operative organization to steady loyalty and active support. And it cannot be too often repeated that any organization must have just one special object—and stick to it. AUSTIN L. MCCREDIE.

Once the corn and roots are planted all depends upon cultivation, barring war upon the potato beetle.

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HORSES.

Treatment of Newborn Foals.

Regarding the article on "The Mare at Foaling," by D. W., in the issue of May 4th, our regular correspondent, "Whip," writes: I notice that he recommends exactly what, in my article on constipation in foal, page 578, I warn breeders against, viz., giving purgatives to newly-born foals. He recommends a cupful of melted fresh butter, and says that both he and his father have always done this, and never had a foal die. I must say that they have been particularly fortunate, and in my opinion they must have bred very few. The practice is irrational, and in many cases harmful, though not in all cases necessarily fatal. The dose in any case is too large; a colt just born cannot take a cupful of anything without danger. As I stated in my article on "Constipation in Foals," the trouble usually exists in the rectum. The meconium (contents of the intestines at birth) is almost black, and in lumps of greater or less consistence and size, and in many cases the foal has not sufficient strength to expel them. Now, the administration of medicine by the mouth has no effect upon the contents of the rectum. I had a case this week in a colt, where I had to remove these lumps with a spoon-billed director, and they were so hard that when thrown on the floor they would make a noise like a stone, and the impact not alter their shape, and they were so large that the colt could not void them. I had to operate several times, and also used injections. The foal was 48 hours old before the last was removed, and it voided yellow excrement. This, of course, was an extreme case, but there are many somewhat similar. This colt is doing well now, but



Stuntney Pharaoh (imp.)—209—C. H. S. B.

Hackney stallion. Winner of first at Portage la Prairie, 1904. Owned by John Wishart, Portage la Prairie.

there is not the slightest doubt, if it had been given butter or other laxatives, instead of local treatment, it would not have survived. Where the meconium can be passed spontaneously the administration of purgatives is not necessarily serious, but it is uncalled for, and when the colt has not sufficient strength to pass the meconium, or when the lumps are too large, the practice is necessarily fatal unless local treatment is adopted. I may say that I have had great experience in these matters, and have known many colts to die from treatment as recommended by D. W., and the fact that he has practiced it without untoward results is due to his colts having been healthy and able to pass the meconium without direct interference, and it does not establish the fact that his practice is advisable.

Best Kind of Horses to Raise.

W. S. Spark: "I do not wish it to be understood from the encouraging remarks that I have made about riding and breeding the saddle horse, that I am of opinion that it will pay the farmers best to breed that class of animal. I am not of that opinion at all. For I am perfectly convinced that the draft horse is the most profitable animal to breed for the average farmer, for the following reason: The breeding of them is more easily managed; the brood mares do not require putting on one side when they are breeding; the young are fit to be put to work much earlier, thereby being considerable less expense to raise; and, lastly, they can always be sold advantageously if the breeder desires it, between the ages of two and three years."—[Toronto News.

Give the Stallion a Chance.

It is well known to practical horsemen that the responsibility for a small foal crop lies upon the owner of the mare, and not upon the stallion. Some time ago we published in this paper the result of scientific investigations into this unfortunate state of affairs, and drew certain deductions therefrom, which, if observed, would be of material benefit to horse-breeders. The value of the advice was recognized by several of our contemporaries, who have reproduced the article, or portions of it, for the benefit of their readers, without giving this paper credit for it. The investigation showed, among other things, that the critical period was at the 7th week after being served. The following rules were first published by the "Farmer's Advocate" in March 1st issue, 1902, and are worthy of note to-day:

1. Mares that have been indoors during the winter, and are to run at grass during the summer, should be acclimated to the change before being served. This is well understood by horsemen, who generally follow the above suggestion, which provides for the mares getting accustomed to the changes in food, temperature and surroundings. It is well known by all practical horsemen that digestive troubles are quite serious in their effects on the pregnant female; the effects of purgatives, such as aloes, being especially harmful.

2. When any signs of being in season are detected in the mare, she should be removed from mares believed to be already with foal.

3. Mares, more especially excitable ones, should be served in the evening, and kept shut up apart from other mares and geldings over night, and should, until all signs of heat have disappeared, be kept from any chance of teasing by other horses.

In the case of a valuable mare, it would pay the breeder to retain a competent veterinarian to tide over the excitement periods when a sedative, both constitutional (such as chloral of opium) and uterine (as black haw, one-half ounce daily of the fluid extract for a week), might, with benefit, be prescribed.

4. Each mare, when bred, should be carefully watched from week to week, and every ninth or tenth day be tried, until the critical period (end of the seventh week) be passed.

5. Mares in poor condition should not be bred, but be gotten into condition by the addition of grain (oats crushed, bran and oil meal, or crushed flaxseed) to the daily ration.

6. For at least two months after service the mares should be neither excited, overheated nor chilled, neither overfed nor stinted from their usual allowance, and drugging, except under professional advice, should at all times be sternly deprecated.

The scientific reason for the need for care at the period mentioned is, that at that time the connection between the mare and the embryo is the weakest, because a change is taking place. The embryo is ceasing to be nourished by the yolk sac of the ovum (egg), and is beginning to get its sustenance from blood vessels forming in the membranes (later known as the cleaning or after-birth). These periods necessarily call for care on the part of the owner of the mare—at the 3rd and 6th week after a fruitful service—because the ovaries, or egg-producing organs, have not yet been entirely quieted down, and again at the end of the 7th week, for reasons as given above.

Scarcity of Heavy Draft Horses.

"The scarcity of heavy draft horses is again causing much concern among dealers. Proprietors of the small stables where stock is bought from week to week as the trade demands, are finding it very difficult to obtain first-class drafters, and even the largest dealers, who contract for the pick of horses on the breeding and feeding farms far in advance of their readiness for marketing, are constantly forced to pay higher prices for their future supplies.

"Two or three things are at present operating in the direction of higher prices for heavy draft horses. One is the fact that contractors who work thousands and thousands of horses are using much heavier teams than they used a few years ago. They have found that it pays to handle big loads, and their trucks are now built to carry two and a half yards of earth, where they used to carry one yard and a quarter. To do this work they require bigger horses than before. Formerly contractors bought horses under fourteen hundred pounds for their work, but they won't look at anything under fifteen hundred pounds now, and most of them want animals weighing around sixteen hundred pounds and seventeen hundred pounds. It takes a

tremendous number of big horses to supply this new demand, and the worst of it is the breeders are not raising enough of them."

Castration.

Opinions differ considerably as to the most desirable age at which to castrate colts. A large percentage of colts are operated upon at one year old, while others are kept entire until two or even three years of age, with the idea of getting greater development of crest and a more masculine appearance, especially of head and neck. Allowing a colt to remain entire until well developed certainly has this tendency, and when this characteristic is desired it can be obtained in this way, but to many horsemen this appearance is objectionable, the idea being that a gelding should resemble a mare in general characteristics. I agree with the latter opinion, and consider a gelding and a mare should hitch well together, and, if mated in other particulars, there should be no marked difference in general physiognomy, such as is noticed if the gelding has remained entire until he has acquired the masculine appearance noted. We notice in the modern showing that many of the competitors, and in many cases prizewinners, in the heavy-harness classes are "stags." Trotting-bred horses that have been kept for breeding purposes until adulthood, and not being fast enough for the purposes for which they were bred, and having good action, are castrated, docked, manes pulled, shod, and driven to produce action rather than speed. Some of these fellows make high-class heavy-harness horses, and in my opinion, the principal objection to them is their masculine appearance. When a pair of them are hitched together this probably does not strike a person so forcibly, but if one be hitched with a mare or ordinary gelding, the contrast is striking, and they cannot be said to be a team. The older a colt or horse is when castrated, the greater the risk, and, to a limited extent, the greater his value, hence the greater the loss should results be untoward or fatal. Castration is a more serious operation than is generally considered. It cannot be performed without severing important organs, and the most skillful operation, performed under the most favorable circumstances, is liable to be followed by untoward results. Colts appear to be more liable to unfavorable results than the young of other classes of stock, but this is largely due to the fact that the young of cattle, sheep and swine are usually castrated at a few days, or at most, a few weeks old, when, as stated, the danger is less. In my opinion, the better time to castrate colts, provided, of course, the animal is strong and healthy and there is no abnormality, as hernia or the absence of one or both testicles in the scrotum, is from ten days to three weeks of age. At this age no special means need be taken to prevent hemorrhage, any more than in a calf; the foal is sucking the dam and usually on grass, and the operation has practically no effect on his general health. Of course, I don't mean to say that even at this age the operation is not attended with some risk, but that the risk is much less, and if it should prove fatal, the loss is much less than if the animal were one or two years old, or older. The average farmer castrates his own calves, pigs and lambs, and meets with few losses, but if he allowed them to reach the age of one, two or three years before castration, and exercised the same carelessness that he usually does, he would find his losses would be much greater. By carelessness, I mean a total disregard to antiseptic measures. As a rule, the operation is performed with a knife carried in the pocket and used for general purposes, sharpened, no doubt, just before the operation, but no means taken to disinfect it or the hands or scrotum. Neither the hands nor instruments are even washed; the operation is performed, and nature allowed perfect liberty to act without assistance or interference. The percentage of losses, even under these conditions, in quite young animals, is quite small, but if the same carelessness were observed in animals of greater age it would be different. Certain general rules should be observed in the castration of any animal, especially colts. Moderate weather, when there are not flies, say from about the middle of May to the first of July, is the better time; or, if we wish to operate in the fall, we should select October or the first half of November. The animal to be operated upon should be in good health, and especial care should be taken to not operate upon one suffering from any respiratory disease, as strangles or influenza, nor upon one out of a stable in which such diseases exist, as while the colt may not show any symptoms, the germs may be in the constitution, and he will develop the disease after the operation, and it is noticed that in such cases he will usually give trouble. I consider it wise for the man who has no special knowledge of or skill in the operation, to employ a veterinarian to operate, but, if he decides to operate himself, or allow an unprofessional man, who travels the country for the purpose, to operate, he should see that certain precautions are observed. The instruments to be used should be used for no

other purpose, and they and the hands of the operator should be thoroughly disinfected with a good disinfectant. Probably none better than a four- or five-per-cent. solution of carbolic acid. A five-per-cent. solution of phenyle or Zenoleum does very well. The animal to be operated on should be cast and firmly secured. Some operate with the patient standing, but I do not approve of that, unless there is some special reason why he should not be thrown. The operator has not as good an opportunity to observe antiseptic measures. As an acrobatic feat, this mode of operation may be said to be a success, but as a surgical operation it does not meet with the approval of many. If a sucking colt, no ropes are needed; a couple of assistants can hold him; but, if a year old, or older, he must be secured with ropes. The hands of the operator, must now be disinfected, and the scrotum well washed with the solution. A testicle is grasped between the thumb and finger and pressed tightly against the scrotum, and a free incision made (care should be taken to make a large incision) and the testicle pops out. If a foal, the cord can be severed with a scraping motion of the knife, and there will be no danger of bleeding. In this case, cut the non-vascular portion of the cord, and scrape the remainder. If a yearling, or over, the cord should be severed with an emasculator or ceraseur; or, if clams are to be used, the non-vascular portion of the cord is first severed, and the clams, having been disinfected, are applied to the remainder, and the cord cut off. The other testicle is removed in the same way. If the openings have not been made large enough, they can be enlarged now, a little of the antiseptic poured into each wound, and the colt allowed to rise. If clams have been used, he should be kept quiet in a clean stall (it is important that the stable be clean and well ventilated) for about twenty-four hours, and then the clams removed. If the instruments named have been used, he may be allowed to run at grass, but should not be left out at nights or in cold or wet weather for about ten days after the operation. The scrotum should be examined the day after the operation, and if the lips of the wounds have become united by a drying of a little blood or serum, the finger should be disinfected with the solution, the adhesions broken down, and any clotted blood that may be present removed from the scrotum.

In my article on "Diarrhoea in Foals" in your issue of May 4th, page 660, a mistake appears. It will be noticed that the 7th and 8th lines from the bottom of the column are a repetition. The sentence should read, "The foal should be given one to three drams, according to size, of tincture of opium (laudanum) in a little of the dam's milk, etc." "WHIP."

STOCK.

Our Scottish Letter.

This must be a miscellaneous composition. The great Ayrshire shows have recently been held, and in connection therewith quite a number of noteworthy points call for attention. Breeders here are naturally interested in the good prices made at the Lachine Rapids sale of Mr. Ogilvie's Ayrshires. The foundation was obtained here, and the stock was recruited from time to time to excellent purpose by purchases from this side. Mr. Hunter, the manager, knew his business well, and carefully selected the kind of Ayrshires for milk first, and shapes afterwards.

This year the milk classes at our great west country shows have been well filled, and at Ayrshire was a longed-for fight between two grand dairy cows, owned by Mr. T. C. Lindsay, Aitkenbrae, Monkton, and one of the once fashionable small-teated kind, owned by Mr. Wm. Howie, Burnhouses. For once judges had the courage to oppose the once popular idea, and Mr. Lindsay's grand dairy sorts were preferred. The best of these, Snowdrift, is a great specimen. She was third in the Ayr Derby a year ago, and was then considered one of the finest dairy types. She was champion at Kilmarnock a fortnight ago, and her victory, repeating this performance at Ayr, was generally commended. Mr. Lindsay is breeding from a bull named White Prince, a son, if we mistake not, of the great prize cow, White Rose of Burnhouses, which hardly ever was beaten. The Kilmarnock Derby for three-year-old queys was won by Mr. James McAlister, Meikle Kilmory, Bute, with Brownie, which also stood well forward in the Ayr Derby this week. The Ayr Derby was one of the best seen for a long time, and the judges set their teeth, and judged not according to fancy, but in accordance with the demands of utility. Mr. Alexander Cross, of Knoekdon, was first, with a very fine dairy specimen, having a stylish body, as well as vessels and teats of the true dairy stamp and character. Mr. Robert McAlister, Mid-Ascog, Bute, was second in the Derby, with a good kind of dairy cow, and Messrs. A. & W. Kerr, Old Grainney, were third, with the Castle Douglas winner. All through the Derby class a disposition was manifested by the judges in favor of dairy properties as opposed to fancy points. Mr. James Howie, Hillhouse, Kilmarnock, as usual cleared everything before him in the yield stock and bull classes. He shows very stylish specimens, and the reputation of the Ayrshire having style of body as well as excellence of vessel and teats

is very safe in his hands. He knows how to bring out such stock, and this is one-half the battle.

Great interest is being taken at present among cheesemakers in an experiment carried out by Mr. Robb, of the West of Scotland, on the temperature at which the rennet should be put into the milk. Hitherto makers have been going on the principle that the temperature should be high rather than low, but Mr. Robb's results seem to declare in favor of the lower temperature. This has been challenged by Mr. Andrew Clement, the well-known produce importer, who warns farmers against being misled by Mr. Robb's results. It is understood here that Canadian makers favor the lower rather than the higher temperature. Another experiment has been conducted by Mr. Robb, dealing with the effect of butter-fat as a determining factor in the quantity of milk to be used in cheesemaking. The results here are very striking, and point to the necessity for a high standard of butter-fat in cheese dairies, as well as in sweet milk or butter dairies. Mr. Robb promises to be an invaluable addition to the staff of our college here. His experiments are useful, and so far as conducted to date, they teach solid lessons. Milk records are now more thought of than they used to be in Scotland. The Highland Society has for two seasons conducted testing work in numerous dairies in the West and South-west of Scotland. The results are remarkable enough, and show the necessity for weeding out in many byres where profitless cows are being kept. Buyers from Canada and Sweden, and visits to Denmark, have all had their value in teaching Scots farmers the utility of milk records, but by far the most influential educative agency has been the experience of farmers in court, under the new milk standard regulations. The recording of a few convictions against men who have sold milk under the standard has shown the necessity for keeping cows with records of quality, as well as quantity. There is a great amount of "canna" being fished" with Scottish farmers, but a few turns in the police courts modify the contempt entertained for such things as milk records.

Clydesdales are having plenty recognition in these days, and prices have been fairly remunerative. At the Kilmarnock show there was a strong exhibition, and the younger classes of stock were remarkably well filled. The family prize for the five best yearlings was won by Messrs. A. & W. Montgomery's Everlasting, a son of Baron's Pride, which won first prize at the H. & A. S. show three years in succession. He has made an excellent start as a breeding horse, and his own merits are being reproduced in his progeny. The male championship at Kilmarnock went to Messrs. A. & W. Montgomery's big three-year-old horse, Silver Crest, by Acme, and at Ayr the same owners took the championship with Baron Fyvie, a two-year-old colt, by Baron's Pride, which gained first prizes this year at Castle Douglas, Kilmarnock and Ayr. At Ayr they showed a very good yearling colt, by Baron's Pride, not out before. He is somewhat like what Everlasting was at the same age. The female champion at Kilmarnock was Mr. Robert Forrest's three-year-old mare, Jean, by Baron's Pride. She gained the same honors a year ago. At both Kilmarnock and Ayr a beautiful yearling filly, by Hiawatha, and owned by Sir John Stirling Maxwell, Bart., M.P., was put first. This filly is named Menawah, and, curiously enough, Sir John won similar honors in the previous year with another of the same sire, and named Minnehaha. Menawah is a beauty, with an extra good hind leg. The female champion at Ayr was Mr. Wm. Park's brood mare, Rosadora, which stood reserve at Kilmarnock.

Hackney and driving horses are now being bred to great perfection in Scotland. The exhibition in these classes at Kilmarnock and Ayr was very fine, and this week two very important sales have been held. At Gowanbank, Darvel, Ayrshire, on Thursday, Mr. Alex. Morton sold 37 ponies and horses, at an average of £71 3s. 5d. The highest prices were made for the ponies, 23 of which made an average of £72 each. The highest price paid was 370 gs. for a four-year-old chestnut mare standing 14-2, and got, like all the other high-priced ones at the sale, by the stud horse, Ruby 1342. Ruby Flancee was bought by a London buyer, and certainly she is an amazing goer, while at the same time her shapes are perfect. Another pony by the same sire, and named Rubetta 1333, and five years old, made 200 gs. to another buyer from Surrey. The demand throughout was steady and brisk. Since Christmas Mr. Morton has sold ten Ruby cobs at an average of £241 apiece. None of these was over 15 h. Ruby is now over 20 years of age, and hard as steel, with courage and vim. He has marvellous hock action, and his colors are perfect.

Satisfactory as were the results at the Gowanbank sale, those at the Thornhome, Carlisle, sale on the following day eclipsed it altogether. Mr. William Scott, the proprietor, is the fortunate owner of the very fine harness breeding horse, Mathias 6473, a son of the London champion mare, Ophelia 1301, and out-of-sight the most successful sire of richly-colored high-class harness horses in Great Britain to-day. At the sale yesterday 13 of his progeny made the splendid average of £119 10s. each. His daughter, Bryony, one of the most lovely specimens ever bred, made 585 gs. His son, Thornhome Performer, made 280 gs. Another son, full brother to the last, made 150 gs. Afterglow, full sister to Bryony, made 114 gs. The champion horse at Kilmarnock made 122 gs., and another of his gets made 100 gs. No such sale of harness horses has ever before been seen in Scotland. The average for 22 head was £113 11s. 7d. Although motor traffic threatens the trade in ordinary commercial driving horses, it is

obvious that the high-class driving horse can always command the top price. All the high-priced horses sold this week were bred in Scotland.

"SCOTLAND YET."

Making Shipping Crates.

Now that so much stock is bought and sold by correspondence, and shipped in crates by express, the making of neat, light shipping-crates at a minimum cost is a matter worthy of consideration. The increasing cost of lumber renders it necessary to economize in its use, and since express companies charge for the gross weight of the animal and the crate combined, it is important that the weight of the crate be as light as possible, consistent with sufficient strength. Where a considerable amount of business in this line is done, it is well to lay in a good supply of lumber of the required widths in winter, in order to have it seasoned and convenient when required. Basswood, where it can be secured, is quite suitable, as is also spruce, or pine reasonably free from knots. The widths most suitable for the sides, as a rule, are six inches for the lower bars, and four inches for the upper. The width apart, of the lower, three inches, and of the upper, four to six inches. For shipping pigs two to three months old, half-inch stuff is sufficiently strong for sides and ends, and, indeed, for bottoms also, and three inches wide for the upper side bars. A handy way of making a bottom is to use 1 x 3 inch or 1 x 4 inch pieces for sills the required length; cut one inch or half inch boards, as the case may be, the length of the width of crate required, and nail these with wire nails across the sills; clinch the nails, and you have a solid bottom. For the upright corner-pieces, use 1 x 4 inch stuff the required height, or 1 x 3 inch for light stock. Nail these to the sills, then cut your top bars the same length as the bottom, and nail them on the inside of uprights, turning the bottom over on its side while this is being done, so that the uprights lie flat on the floor; next lay the lower bar and the intervening ones, and nail all with wire nails, to be clinched on the outside. If the crate is more than four feet long, central uprights should be added before turning over to nail on the side boards. Now cut cross pieces of 1 x 3 inch or 1 x 4 inch, two inches longer than the width of the bottom; nail these on the top of the uprights to hold them the right width apart, turn the crate on end, and board up the front end close from bottom to top, or to within four or six inches of the top. For the hind end make a removable door, which can be slipped in and taken out as required, but board it close, as open bars are apt to cut into the skin of a pig or calf as they will press backward, or rub off the wool of a sheep, and also allow the voidings of the animals to soil the outside of the crate and the floor of the express car in which they are shipped. The making of this slide door is not easily described in words, but a little ingenuity will work it out. One way is to nail a 1 x 4 inch piece across at the bottom and another at the top of the rear uprights, then take two 1 x 3 inch uprights, a couple of inches longer than height from floor to top of crate, and across these nail inch boards, width of crate on outside of uprights, the lower four inches from bottom end of uprights, and the upper, say six inches from top, sliding door up at top in putting it in, and then in at bottom inside of bottom cross bar. A nail driven part way in through one board on each side into end uprights keeps the door from being worked out of place, and is easily withdrawn with a hammer when taking the animal out. A few slats across or lengthwise of crate, on top, finish the contract.

This is one way of making a crate. It is not claimed to be a model, or the best, but is simple in construction and strong enough for ordinary purposes. A cow has been safely shipped in a crate made on this principle. Others may be able to supply descriptions of better, cheaper and more easily constructed crates, and if so, we shall be glad to receive such description, with a sketch or photograph of same.

Any farmer or farmer's son should be able to make a crate such as above described in about the space of half an hour, if the material is in convenient shape, the only tools needed being hammer, saw and square, with, perhaps, a drawing-knife. For the sake of neatness of appearance, it is well to have the lumber dressed on one side at least, though in the case of half-inch boards this is not necessary. Make the crate high enough that the back of the animal may not be rubbed by the top bars, and long enough to avoid cramping (andily); the width need not be more than will allow the animal to lie down comfortably with its feet under it. It is well to have a list of dimensions for different ages written out and tacked up over the work bench, variations from which may be made to suit special cases; but when in doubt, measure the animal, to be sure you make the crate large enough—better too large than too small.

In Favor of Dehorning.

To the Editor "Farmer's Advocate":

In your issue of April 13th appeared an article, in which the writer strongly condemned the dehorning of cattle, depicting it as a cruelty, which he considered should be placed in the category of crime.

I quite agree with the writer in preserving the ornamental tentacles on the head of cattle, for one purpose only—the show-ring—but feel that if judges would confine their attention solely to useful characteristics of an animal, without considering horns, it would be much better to have hornless prizewinners.

As for farmers raising a breed of cattle which are hornless, I doubt whether one farmer, in a thousand would be satisfied with that solution of the trouble. Again, the great majority of farmers are getting new cattle into their herds from time to time. Now, what is to be done with the new ones that have horns, when the rest of the herd have no horns? In my estimation, in justice to the hornless, only one thing can be done—clip off the horns of the newcomers.

I have a dehorner, with which during the past five years I have taken the horns off over two thousand head of cattle. I never knew of one bad result following the operation, and although I have not a mechanically-trained eye, I venture to say that, instead of leaving three inches of a stump on one side, and cutting off three inches of the animal's head on the other, as the writer says is the average result, the stubs of horn never vary in length as much as a quarter of an inch, and the cattle I have dehorned are frequently taken as never having had horns.

Recently I talked with an old cattle man who considered dehorning a bull very effectual when the animal had become cross, saying that he noticed that a bull was very reluctant about making an attack without his weapons, as he called his horns.

I am not advocating torture to dumb animals. I quite agree with the use of potash on the animal when a few days old, but the average farmer, as before stated, is getting horned cattle into his herd, and the dehorner is the only resort.

Brant Co., Ont. WM. R. McDONALD.

Against Dehorning.

To the Editor "Farmer's Advocate":

I have been reading with interest the different opinions on the dehorning question. I want to very strongly endorse the opinion of Mr. Alex. Young, in the issue of April 13th. I would like also to tell Mr. Thos. Crawford, M. P. P., he is dabbling in something he has no business whatever to touch. Our country has come to a pretty pass if a man cannot choose for himself whether his own cattle shall have horns or not. The dehorning business is all wrong—a disgrace to a civilized country. I would like to see all the men who practice dehorning exported to Turkey, or some other barbarous country where all manner of cruel practices exist. Mr. Forsyth says that such cows won't mind it enough to make any difference in the milk flow. I would just like to tell him that is not so.

In your valuable paper I have read about being kind to dairy cows, not using a dog to drive them, not speaking cross to them, or abusing or bossing them in any way, but to be on the best of terms with them. Now, some will have the temerity to come out and say a man can bind a cow to a post, cut off both her horns, the quick of which is intensely sensitive, and still not make any difference to the flow of milk—be consistent, gentlemen.

The greatest objection to horns I have noticed in these writings is in regard to beef cattle. The only right way to get over this drawback (if such it be) would be for beef-raisers to raise a polled breed, which, I believe, are very suitable for beef purposes. The Creator has given us both, and we can have our choice.

I have yet to hear the first word of complaint about horns from one of the six live-stock dealers who load at our station.

I think dehorning is a hobby some are riding, and I hope they will ride it to death—A defender of our true friend, the cow.

York Co., Ont. R. WILLIAMS.

Dehorning Calves.

To the Editor "Farmer's Advocate":

As this is the time of year for dehorning calves, may I ask for space in your valuable paper to give my opinion on this subject?

I prefer the caustic process. I have had the horns of cattle sawed off, and I would not allow either the clippers or saw into my yard again. I take the calf when it is about two or three weeks old, clip the hair close round the horn, apply a little water—just enough to moisten the skin round the horn—ring it round with the caustic till a little scurf or skin comes off, and stop, as there is danger of rubbing it too much and making it bleed. I have been using this method for years, and I never made a botch of it yet. I never had a horn grow after treated in this manner, nor never any bad results.

Lanark Co., Ont. GEO. A. McCONNELL.

Believes in Dehorning.

To the Editor "Farmer's Advocate":

In your issue of April 13th appeared an item against dehorning. I know a few men who do not believe in dehorning, and the result is they have to take from ten to fifteen cents per cwt. less for their cattle, and one cannot blame the buyers for making this reduction, when one steps into the stock-yards and sees young cattle being bossed and ripped by the larger and stronger ones with horns; and many bulls become vicious and dangerous, and if not secured will attack a man, in which case, if the bull has horns on, the man hardly ever escapes death, while if the animal were dehorned his temper would be much subdued.

Of course there are many botches made in dehorning, as in other operations, by letting an inexperienced or a cross-eyed man do it, who doesn't cut where he looks or look where he cuts, and cannot tell if one horn is two or three inches longer than the other, or cuts off a piece at a time so it will not hurt so much. Putting potash on the horns of calves, if it is botched, gives them great misery, sometimes causing them to become blind. I find the best way to take the horns off is with clippers or a fine saw. If a cord is well tightened around the base of the horn before operating, and the operation is done right, there will be no great loss of blood. As to breeding hornless cattle, it would be all right in many cases, but most of the farmers in this locality prefer the horned stock, as they are much better in many respects than the hornless ones. Considering all things, I don't think any broad-minded man would blame the Government for taking steps toward making dehorning compulsory.

Kent Co., Ont.

The Bull.

With a very large percentage of farmers the bull used to mate with their cows does not come in for his share of consideration and attention. The danger in caring for and handling a bull of any age is very considerable, increasing with age, and this, perhaps, accounts for so many, after having been used for a short time as stock-getters, being turned off to the butcher before they have come to maturity. With so general use of immature and ill-bred sires, what wonder that the average Canadian steer is not what the best markets call for? Breeding exclusively from immature bulls is liable to wreck the constitution of the herds of the country, despite our countless natural advantages. A bull will grow and develop both bone and muscle until four or five years of age, and what argument can be advanced to show that he is mature as long as he is growing; and further, how can we expect stamina and vigor from immature animals, in many cases mere calves?

Disposing of a good stock-getter at three or four years of age, just when at his best as a breeder, is blind policy. This decreases the number of useful sires, and gives room for the miniature and the scrub, and, in either case, degeneracy and inferiority can hardly be avoided. We should, in Canada, with our well-established herds, unrivalled climate, and men of intelligence, experience and wealth, be able to maintain our herds without annual trips to the motherland, or elsewhere, in quest of fresh blood.

In the first place, suitable quarters for the bull should be provided, and having this, dehorn the gentleman, thus minimizing the risk to the attendant. Then he should be kept until six or eight years of age if he proves to give satisfaction as a sire; not necessarily kept by any one man, but exchange could be made when advisable to avoid inbreeding. He should have a good, roomy box for his special use, with open door to a paddock sufficiently large to supply ample exercise and pasturage in summer. This should be surrounded with a strong, woven wire fence, that he may be found where he is left. This will do away with the system of running the bull with the cows, so abominably objectionable, as well as dangerous and inadvisable for many reasons. In his box should be a pulley in the upper part of one corner. Through this pulley pass a long rope with snap on end. Keep snap in convenient place, and when the bull is wanted for service take hold of his ring (he will soon learn to give ring to attendant's hand) and fasten the rope. Then bring him up close to pulley by means of rope. Now bring in cow and tie her; this done, slacken the rope. After service tighten him up until cow is removed, then unfasten, and secure snap in its place ready for next use. In this way what is generally a most troublesome and somewhat dangerous task, accompanied by a lot of needless racing and excitement, can be quickly, safely and satisfactorily accomplished. Having had experience handling a vicious beast in this manner, I feel confident in recommending the same as a safe and practicable method.

Wentworth Co., Ont. J. R. H.

More Good than All Others.

Your paper is doing more general good than all others combined.

Waterloo Co., Ont. L. K. WEBER.

FARM.

What Has the Moon to do with the Weather?

To the Editor "Farmer's Advocate":

Sir,—In reply to your letter, I would say that Meteorologists in almost every country of Europe, in Canada and the United States, have tabulated records for the special purpose of determining a connection between lunar changes and the weather, and I believe that I may safely affirm that not one of them have been able to trace any connection whatever. It has been proved that there are lunar tides of the atmosphere, but they are so exceedingly small that any influence they may exert on the weather seems to be totally masked.

That the moon's phases, etc., can have any effect on the sowing of grain, is quite inconceivable, and is, I am sure, a complete fallacy, and not worth being considered for a moment.

R. F. STUPART, Director.
Meteorological Office, Toronto, Ont.

The Moon and Weather Forecasts.

Whether it be the indefiniteness and mystery of the moonlit night, or the weird, suggestive pallor of

"That orb'd maiden with white fire laden,
Which mortals call the moon,"

which has kept clustered about the "orb of night" a bundle of superstitions that should long ago have been relegated to the past with the kelpies and witches, banshees and hobgoblins of the Dark Ages, it would be hard to say. The fact remains, that even yet, among people otherwise of fair education and good common sense, there are cherished a number of "beliefs" in regard to the moon which are so strong in some cases as to provide veritable rules for the carrying out of business. For instance, there are men who will not sow peas or kill hogs unless in a certain quarter of the moon; there are others, again, who are quite certain that if the new moon lies on its back, so as to hold water, or for the Indian to hang his powder-horn on without slipping off, there will be a season of dry weather, wet weather being expected if the converse is observed.

Now, with the object of being able to present our readers with the decision of real authorities on the subject, we have gone to some trouble to find out the opinions of the most eminent scientists of the day. As a result, we find, from exhaustive matter furnished by the Weather Bureau at Washington, that these men are undivided in stating that the moon has so slight an effect on our atmospheric conditions as to be practically of little importance. The sun it is, and neither the moon nor the stars, which determines our weather. The influence of the moon in potato-planting, weed-killing, soap-making, etc., is, of course, absurd.

In regard to long-range weather forecasts, also, these scientists as are one in declaring that, as Prof. Pernter, Vienna, has said, "We have at present, unfortunately, no method by which such forecasts of the weather can, with absolute certainty, be made." There are, of course, certain phenomena which accompany, and for some hours, perhaps, precede changes in the weather, and by observation of these, local weather may often be fairly well predicted for short periods, say from one day to the next. Among these "signs" may be mentioned the following: The covering of a mountain summit with a "cap," in some localities, almost invariably signifies storm or rain; a watery halo about the moon often indicates bad weather; if, when clouds break, a second light covering of clouds is seen above them, the chances are that the weather will remain bad; a slow breaking up of the clouds usually indicates fine weather, etc. These rules often hold good, but are not infallible. As to gauging what a winter will be like by the actions of birds, animals, plants, etc., these are looked upon as absurdities.

In conclusion, we may say that exhaustive scientific investigations are being made, with a view to arriving at some definite clue by which weather conditions may be foretold for longer periods. In all probability no reliable method may ever be discovered. In the meantime, however, it may be well to wait with patience, and give Hicks and all such like a wide berth.

The daily "probabilities," issued from the meteorological office and published in the newspapers, or posted up at telegraph offices, are based on accurate observations, taken throughout the country, as to temperature, barometer velocity of wind, rainfall, etc., and are usually reliable.

IF YOU HAVE A FARM FOR SALE OR WANT A SITUATION, PUT AN ADVERTISEMENT UNDER THE HEADING OF "WANT AND FOR SALE" IN THE "FARMER'S ADVOCATE."

Corn Cultivation in Kent Co.

The soil of this district would, generally speaking, be called a loam. The greater the amount of clay in the soil, the more important it is that the land should be fall plowed. If plowed in the spring, it should not be plowed too wet, and should be harrowed soon after plowing, in order to prevent any tendency to bake.

We find that the greater yield of corn is obtained by planting in hills, and we have followed that method of planting to a great extent. Corn planted in drills will yield a larger amount of fodder usually, and if it is planted thin enough will often yield a fairly large amount of corn. In hills three and a half feet apart each way it has given good results, and drills about the same width apart can be obtained by arranging the drill so that only certain tubes will be sowing.

For hill-planting, a peck of good corn is enough for an acre, and I think that very little over a peck would be sufficient when sown in drills, though it is difficult to get the seed just the proper thickness with the ordinary seed drill.

As a prevention against the crows, we have never found anything better than three or four dead crows hung up in different parts of the field. It is usually possible to shoot a few in the early spring, and if they are preserved in some cool, airy place, they will be in good condition for hanging up at corn-planting time. Place a stake six or eight feet long in the ground at a slight angle, and tie the crow to the top of the stake by means of a cord fastened to the legs.

Just before the corn is slightly up it is a good plan to go through with a light harrow or a weeder. This will destroy a great many weeds, and also keep the ground from becoming too hard on top.

After the corn is up cultivation is continued with an ordinary two-horse cultivator, such as the "Gale." The cultivation should be fully three inches deep at first, but as the roots of the corn spread, slightly shallower cultivation is necessary, to get the best results. There is little danger of getting through the corn too often with the cultivator, but frequently it is impossible to get through it more than three or four times. If possible, corn should be worked after every rain, in order to destroy the crust. Corn may be cultivated as long as it is possible to get through without injuring the plants. It would, of course, be possible to cultivate much later by using a one-horse scuffer.

There are three main objects to be gained by cultivation, namely, to destroy the weeds, to make plant food more available, and to help retain the soil moisture. When it is possible to obtain good help at any reasonable cost, hand-hoeing is practiced, the corn being gone through, usually, not more than once.

It is difficult to say just how much each day's cultivation is worth to the crop, as this depends somewhat on the condition of the soil, and also upon the weather conditions. A man and a team should cultivate about four acres a day, and the work should increase the yield of the corn by at least five bushels per acre, making a total increase of twenty bushels, which would mean, perhaps, about ten dollars for the day's cultivation.

It is important in corn culture to select the seed in the fall, and keep it in a dry place during the winter, so that when next spring comes one can be certain his seed will grow.

J. O. LAIRD.

Ten to Fifteen Dollars a Day Cultivating Corn.

In Essex County the best corn land is clay loam. The seed is planted May 10th to June 1st, in hills 3 feet 6 inches to 3 feet 8 inches apart each way, and only three grains are planted in a hill. This requires about four quarts shelled corn per acre.

If crows are troublesome, a good plan is to scatter four or five poisoned eggs over the field just as the corn is coming up. In a couple of hours all will be over; you will probably find half a dozen dead crows on the field, which should be left there, and all uneaten eggs destroyed. The rest of the crows will always fly very high when passing over that field.

Just before the corn appears it should be harrowed once with a peg-tooth harrow. This implement is sometimes used again when the corn is four inches high. After that the two-horse cultivator should be used every week or ten days until the stalks begin to break. In this manner of cultivation hand-hoeing is entirely done away with. The object of cultivation in wet seasons is to kill weeds, and in dry seasons to conserve moisture. In a dry season, with a two-horse cultivator, it is estimated by our best corn-growers that ten to fifteen dollars can be added to the value of the corn crop on each day spent cultivating.

Essex Co., Ont.

Corn Culture on Clay Soil.

To the Editor "Farmer's Advocate":

Regarding corn cultivation, I beg to submit a brief outline of our method. As the nature of our soil is clay, we always plow the land in the fall, for we find where spring-plowed, the clay bakes to such an extent that it is very difficult indeed to prepare a good seed-bed and to retain the moisture in the soil. The manure is hauled to the field and spread during the winter, so that as soon as seeding is finished the corn ground may be immediately tilled, the aim being to conserve soil moisture, cause weed seeds to germinate, and kill all grass and weeds that may appear. About the 20th to 24th of May the corn is planted in drills 40 inches apart, at the rate of one peck to the acre for crib corn, and one-third bushel for silage corn. We find that where the drills are 40 inches apart we are able to plant as much seed to the acre and yet give each plant more light and air than when the drills are further apart and the plants are closer together in the row. As soon as the plants appear the ground is harrowed with a light dressing-harrow. In a few days the cultivator is put to work; set deep at first, gradually getting more shallow as the season advances. Cultivation is continued until the ears are well formed. The object of all cultivation is (1) to conserve soil moisture, for without sufficient moisture the crop will be a failure; (2) to kill weeds; (3) to keep the crust of the soil broken so that the air can circulate in the soil, and thus unlock unavailable plant food, and render it available to the plants as they require it. With such cultivation, and by selecting from the previous year's crop the very best ears for seed, we have found no trouble in raising from 100 to 125 bushels of ear corn, even in the poorest corn seasons.

Elgin Co., Ont. FRANK H. SILCOX.

Corn Culture on a Gravelly Soil.

The land which I devote to corn-growing is a rather light loamy gravel, with a gravel sub-soil. I have three fields of about twenty acres each, in which I grow my corn, roots, etc., in rotation with barley and clover, plowing up clover sod each year—the heavier part of the field in the fall, and the lighter part just before planting, rolling the fresh-plowed land well, having manured the sod part during the winter and the plowed part in the spring with manure spreader, to ensure evenness and fineness of distribution.

I sow with drill, because drilling is more easily and quickly done in the rush of spring work, and rows are handled easily in the fall with corn-harvester. I admit that in hills the ground can be kept cleaner, and the crop may be richer in ears; but this might easily be offset by a few days' delay in planting. I have planted for a number of years the 16th and 17th of May. It has frozen off, but soon recovered. I use as little seed as I can with my old Maxwell common grain drill with two tubes open, 40 inches apart, a little over a peck to the acre. On the next tubes to the left of those sowing I attach plow-skimmers, covering every grain of corn with a light furrow, and when land is dry enough I put on the roller, packing the earth snugly around each grain, and hardly a kernel fails to grow: in fact, I have never had a failure since I adopted this method in germinating my millet (which I drill in and cultivate), beans, beet seed, etc.

To escape the depredations of crows, as well as to guard against drouth on my light soil, I plant fairly deep and early. By planting early it gets past the crow-pulling stage while the crows are hatching and before they are driven to ravage for food to satisfy their hungry young.

I like to stir the ground with a straight-tooth harrow, once, twice, or three times, according to the length of time the corn takes to come up, especially after each rain, so as to break the crust and allow the grain to spring forth. I do not touch it again till I can go in with my two-horse cultivator, equipped with shields to protect the small plants, guiding the rolling sections from the rows of corn with my feet. When I practiced harrowing corn after it was up, as many do, I observed, especially when it was done in moist weather, that every bruise was an open door inviting smut germs in, and by fall a magnificent colony of this black pest developed. I try to practice cultivating, after corn is large enough, once a week, especially after each rain, and keep at it until the cultivator going over it breaks a few of the stalks. It might possibly add to the crop to go through once after with a one-horse cultivator, but after riding through the field like a prince, one hates to get down and plod. I have persuaded myself it doesn't pay.

I cultivate for the object of killing weeds, of freeing plant food, and of conserving moisture. I think it would pay to hand-hoe at least once, but I do not cover all the field for lack of time, since help is so scarce.

It is impossible to estimate how much one

makes per day cultivating corn, but I know it pays to cultivate frequently.

In conclusion, I might add that my silo (which I have used with good satisfaction since the fall of 1891) having burned down while filling last fall, I intend substituting sugar cane for ensilage, until I test its qualities. I have grown sorghum successfully for three years, intend putting in five acres this spring, and if it proves to be as good as I have reason to think it will; judging from my little experience with it, I may not feel the need of rebuilding my silo. Sugar cane is as easily grown on my soil, as easily handled as corn, it needs no special building and no cutting up. Cattle, horses and hogs all relish it. It remains as succulent as ensilage all winter. It has far greater fattening properties. Can anyone tell me why it will not be better?

As I stated before, my soil is light gravel and while my system seems to work admirably thereon, certain features of it will not answer for heavy soils.

EDGAR M. ZAVITZ.
Middlesex Co., Ont.

A Beginner's Experience in Corn Growing.

Replying to yours of the 5th inst, I will give you my simple experience in corn culture on my loam soil. My method of planting is hills; in 1903 I planted 3 ft. 8 in. apart; in 1904, 3 ft. 6 inches. The conditions in the two years do not admit of anything conclusive as to which is better. I think the very large varieties would be better planted 3 feet 8 inches, and the smaller or flint varieties would be as well 3 feet 6 inches apart. Never tried any in drills. A bushel of shelled corn should plant six or eight acres—three or four grains in the hill. In 1903 I harrowed with a light iron harrow just before the corn came up. Last year the conditions would not admit of it, as we thought we needed the marks for replanting, but it is a question if this is a paying thing to do. We start cultivating with a two-horse cultivator as soon as the corn can be seen across the field in the row, and continue once a week until it is too high for the machine, then go once with a single-horse before the ears start to grow out. I cultivate as shallow as I can do and stir the whole surface. The principal object of cultivation is to destroy the growth of weeds, but if there were no weeds it would likely pay in making more plant food available and conserving moisture. Hand-hoeing I would think unnecessary, except among stumps. I have learned that seed corn must be properly cared for to insure the highest germinating qualities, and so propose this year to plant a plot extra prepared and with extra-selected seed, and take care of it as directed by the Canadian Seed-growers' Association, which I joined this spring.

GORDON ULCH.
Essex Co., Ont.

Cultivation Can't be Overdone.

To the Editor "Farmer's Advocate":

My soil is sand and sandy loam. We always try to plant on a clover sod, sometimes plowed in the fall and sometimes not until spring. We prefer planting in hills, 3 ft. 9 to 10 inches apart. Corn with us is made the cleaning crop of the rotation, and by planting in hills we avoid hand-hoeing. We are able to cultivate thoroughly in every direction, up and down, crosswise and angling, and we can continue the cultivation until the corn is well over the horses' backs; of course, running the cultivator lightly then.

Our rate of sowing is about six quarts per acre. Three stalks to the hill will yield more corn per acre than a larger number.

We have had no trouble with crows for years, but as a preventive, when they are troublesome, a very little coal tar thoroughly mixed with the seed so as to taint it is used by many farmers successfully.

If land is not too wet, harrow as soon as planted, and again three days later, then just as the corn is peaking through, give another touch with the light harrow or the weeder. As soon as the rows can be followed start the cultivator, and keep it going just as often as you can spare the time; you can't overdo it. At first cultivate the ordinary depth, then as the corn gets taller, shallower, until you are running, say, 1½ inches deep. We continue cultivating until the corn is tasselled out and ears are beginning to form. The two-horse cultivator at first is useful, but after the corn is too high for it use the single-horse cultivator, with wheel behind, to gauge the depth.

Cultivation conserves the moisture, by keeping the surface thoroughly stirred, and kills the weeds. The last time through, in August, is especially useful for killing thistles and other bad weeds. Summer tillage also thoroughly prepares the land for the following crop, and saves another plowing. On our light land we find the succeeding crop of grain and catch of clover much better on the clean, firm, cultivated soil than where we plow it. After the cultivation for the

season is over, we take the hoe and cut whatever weeds may have escaped.

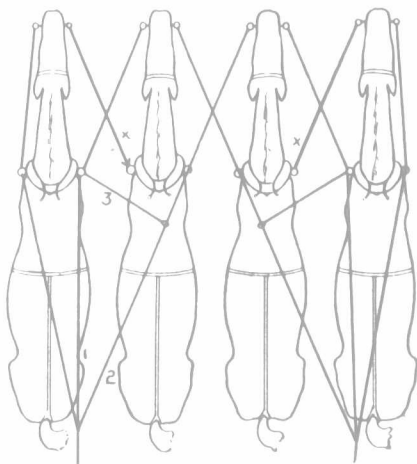
Your question as to how much we can earn per day cultivating corn is rather hard to answer. We could not expect a quarter of a crop without cultivation; with it we usually get a full crop. If the question means no cultivation against thorough cultivation, I would consider that a man and horse would earn at least \$3 per day.

Too much emphasis cannot be placed upon the necessity of farmers selecting and caring for their own seed corn. Where the corn is selected early, thoroughly dried by artificial heat, such as an upper chamber with a pipe passing through, you can count on from 90 to 100 per cent. of it growing.

T. H. MASON.
Elgin Co., Ont.

Four-horse Lines.

The sections marked x indicate extra tie-straps to hames; section No. 2 indicates extra cross lines, with common pair 12 inches longer



(than section 1; No. 3 indicates spread straps 12 inches long.)
W. G. BARNES.
Oxford Co., Ont.

Clod Formation.

If dry weather continues for any great length of time, or if dry weather follows recent rains, our readers will have an opportunity of studying the formation of clods, and, quite likely, to their own loss and discomfort. Given a clay soil, wet from the going out of the frost, or lack of drainage, or seepage from higher lands, let a dry south wind blow over it for two or three days and great cracks will appear in all sorts of irregular directions, the result of the shrinkage of the soil from the loss of water.

When the plow comes along, the soil bounded by these various rents or cracks in the soil will turn over as clods, and if there is very dry weather the wind will soon suck out the remaining moisture; hence, in very tenacious and heavy soils you will soon have a clod that will require a sledge or maul to break.

All this might have been avoided if the farmer had during the first part of April, when the land had been in corn last year, run a disk over it once or twice and formed a mulch of dry dirt. This mulch would have prevented the drawing of the soil together and the resulting cracks. It would, therefore, have prevented the formation of clods.

There is nothing easier than to prevent clod formation if the farmer will give close attention to the question, "How are clods formed?" The disking of the land will create a dust mulch; comparatively little moisture, therefore, would have passed out, but would have been retained in the soil. When the farmer plows this land the dust mulch falls into the bottom of the furrow, and if he will follow with the harrow directly after plowing he will crumble up whatever incipient lumps might form, form another dust mulch on top, and have gone far toward the preparation of a proper seed bed.

When these lumps have been formed by the method above described, and have become quite hard, as they will often in a few hours' time, the farmer finds it necessary to wait for a rain, and while he is waiting a week or ten days the soil will have lost enough water to grow five or ten bushels of corn. The air circulates very freely among these lumps, and instead of having a seed-bed he has a mass of lumps with which he can do nothing with his ordinary tools until a rain comes, and not then unless he gets on it as soon as it begins to dry, and after a great deal of labor forms the seed-bed which he might have had at the start.

Now, read this over twice, and then think it over. If you have a mass of lumps on which to grow your crop of corn, do the best you can with it, and charge this extra labor to whatever account you like, whether thoughtlessness, ignorance, or careless reading, but avoid it the next time. It makes very little difference to us whether you plant your seeds in clods or in a good soil, but it is a matter of tremendous importance to you. You do not need to have clods under ordinary circumstances, and if you do have them it is the result of not properly understanding how clods form. This, and how to avoid their formation, is the object of the present article.—[Wallace's Farmer.

A Famous Plowmaker.

From the People's Journal, Dundee, Scotland.

Throughout the whole of the Carse land bordering the Forth, and among the agricultural community in many a parish beyond it, the name of Paterson's chilled plow possesses a charm for the worthy son of the soil, who prides himself on "haudin' stracht," and being "weel furrit" in the prize-list as each recurring plowing match comes round. So the subject of our sketch, "Dauvit" Paterson, of the Fauld Smithy, Alloa, may not need much introduction to "Journal" readers. The story of his long career can scarcely be other than interesting.

A TYPICAL SCOT.

For here you have a noble type of the Scot, who forms a living link between the most up-to-date methods employed in agricultural operations to-day and the laborious system of the past, when harvesting meant the prolonged welding of the sickle and the scythe, and threshing relied on the wearisome thud of the flail. In both epochs "Dauvit" has played his part. He was born at the rural smithy of Carnock, near Airth, in May, 1829, and is thus in his 76th year. When 11 he "fee'd" with the parish minister. During three years' service at the Manse he developed a turn for handling the plow, a turn which in later years became an all-absorbing study, and one in which his interest has never waned. At 14 he started as apprentice in his father's shop, and hammered iron, as four generations of his forbears had done before him. After 62 years at the forge he hammers it still; his hand has lost little of its cunning. In youth all his spare time was spent in improving the type of plow in general use, and in this he was so successful that in no part of Scotland could better plowing be found than in the region round Carnock Smithy. David tells how 51 years ago he crossed the Forth to compete at a great championship plowing match, which took place in the classic "Hawkhill" field at Alloa. One hundred and fifty plows faced each its allotted half acre, and our hero, determined to give his plow every chance, handled it himself. The match was advertised as open to all, and he was "makin' gran' wark." But some aspiring champions, and others interested in the success of rival plows, made a "hulla-buloo" when they found the brawny smith among the "hauders."

A JUDGE O' PLOOIN'.

Such influence was exerted that the committee adopted a special rule, "that all competitors must be bona-fide plowmen." The judge approached David. "Are you," he asked, "a plowman, na man?" The reply was characteristic. "Weel, sir, I suppose you're a judge o' plooin'; jist cast yer een ower that rig ahint ye, and mak' up yer mind yersel'." "Ay, ay! man, that's jist the faut; you're plooin' ower weel—that's what's wrang," commented the other, with a smile. "But, tell me, are you the smith o' Carnock?" David, of course, admitted his identity. "Aye," he declared proudly, "I'm the smith o' Carnock. I made the ploogh mysel', and I'm gaun to haud it mysel', get the prize wha likes." "Weel! weel!" said the judge, "I'm rale sorry I canna gie you the prize. You've the best ploogh'd rig on the field, but, ye see, yer a smith." But our hero's day's work was not without its reward. Far and near the virtue of the plow and the skill of the maker was sung. For half a century since scarcely a plowing match has taken place throughout the shires of Stirling, Fife and Clackmannan without some of the chief prizes being annexed by a "Paterson" plow. In the long period of 54 years Mr. Paterson has missed attending the famous ten-parish match, held annually at Falkirk, only twice. His attention has not been solely confined to the implement branch of the trade.

IN STEEL AND IRON.

His renown as a horseshoer was vast, and few country smiths could set a lame horse "square on his pins," and send him on his way rejoicing, better than he. Almost a score of years ago his increasing business connection compelled him to look around for a more convenient center of operations. So he crossed the Forth to Alloa. On leaving Airth he was publicly entertained by his farming friends, and presented with a valuable gold watch and chain in recognition of the painstaking care and trouble he had displayed in business, and as a testimony to his personal worth. When the much-boomed Yankee chilled plow struck the market 16 years ago it looked as if the Scotch-made implement must succumb. Admittedly the "Yank" was a splendid innovation. Mr. Paterson, however, took the matter with a philosophic calm. "Why not a Scottish-chilled plow?" he asked himself; and with the able assistance of his two sons he started to work out the answer in steel and iron. For two years he plodded, experimenting, constructing, tearing down, and consigning to the "scrap bin" many an unsatisfactory production. He expended nearly a hundred pounds for patterns.

VETERAN "SON OF VULCAN."

But eventually he triumphed. He invented a plow which on many a well-plowed rig has beat the imported variety. The smith has not been a laggard in the world of sport. Fifty years ago, as the bow-armsman in the famous Dunmore team of rowers, he pulled in many a hard-earned race, and in those days the Forth regattas were events that mattered in the realm aquatic. The championship race was decided over a seven miles' course. The Dunmore lads annexed premier honors repeatedly. On the ice, too, David was an expert, and even on classic Carsebreck he is no stranger. With glee he tells of a great game played between his rink

and the illustrious Northern men from Breadalbane, in which Dunmore men had a majority of 16 shots. Much more could be written of the experiences of this veteran "son of Vulcan" did space permit. But, summarized briefly, we may say his is a personality the world could do with many more examples of.

Fodder Crops for Soiling.

To the Editor "Farmer's Advocate":

Replying to the question of "Beginner," in your issue of April 13th, I would say for a number of years we have found that three or four sowings of a mixture of two parts oats and one of vetches, sown broadcast, on good, well-prepared soil, at intervals of every ten days, and harrowed in, beginning to sow as early in season as land will permit, makes an excellent supplementary feed for keeping up the flow of milk in a herd of dairy cows during the summer months. They should get at least one good heavy feed of this per day, and fed regularly at same hour each day. We always try to sow this mixture on a few ridges along the pasture, where we can mow it and throw it over the fence for the cows each morning. Any good variety of fodder corn may be sown also in third or fourth week of May, to come in after the vetches are all cut or get too ripe, but we always get more milk from the vetches mixture, for the corn has to be fed in a very green state for cattle to eat stalks up clean without putting them through a cutter. A little barley may be mixed in with the oats, to mix with the vetches in the above proportions. W. A. OSWALD.

Two Mountains Co., Que.

Killing Sow Thistle.

To the Editor "Farmer's Advocate":

With reference to "Subscriber's" enquiry as to eradicating sow-thistle, I will give you my experience. Having a 15-acre field literally covered with the perennial sort, about the middle of May we plowed deep with the narrow plows, then harrowed thoroughly; then occasionally through the summer, during hot and dry spells, put on the three-horse cultivator, in order to bring the roots to the top exposed to the hot sun, but cultivate, in order that they do not again take root and grow. Then the last week in August we plowed again, sowed with fall wheat, and seeded down with clover and timothy. This was nine years ago, and I have never seen one growing root in the field since. A little attention and thorough cultivation is all that is required to completely exterminate this weed, which is considered by some to be troublesome.

Huron Co., Ont.

CONSTANT SUBSCRIBER.

To Eradicate Sow Thistle.

To the Editor "Farmer's Advocate":

I notice in your issue of April 27th Subscriber asking how to get entirely rid of sow thistle. My experience has been only with such a patch as he describes. I have killed it by drawing out long straw manure and covering it up entirely. I think this a much better plan for a small patch than cultivation, as it is quite possible to drag the roots to other parts of the field, and, if kept covered as described, I am satisfied one year will clean it out. J. R. PHILIP.

Grey Co., Ont.

DAIRY

Flavor of Pasteurized Milk.

In a recent report issued by the Ontario Agricultural College Dairy School, we noted the following statement:

"During the milk-dealers' course two experiments were carried out, of special value to the milk trade. The first was a comparison of the effects of cooling milk to 40, 50 and 60 degrees, and also a comparison with pasteurizing at 140, 150 and 180 degrees, then cooling to 40, 50 and 60 degrees. The milk cooled to 40 degrees on April 18th and maintained at that temperature, was still sweet and good on April 25th—one week later. The samples pasteurized and cooled to 40 degrees were sweet, containing about .08 per cent. less acid at the end of the week. The samples cooled to 60 degrees—both pasteurized and unpasteurized—were sour in two to three days. At 50 degrees they kept sweet for the week, though showing slightly more acid than did those cooled to 40 degrees. The higher the temperature of pasteurization, the less the cream on the bottle. As this is an important point in selling milk to most customers, heating to a temperature of 140 to 160 degrees, and afterwards cooling to 40 to 50 degrees, is to be recommended, although good results are got by milking in a cleanly manner and cooling as rapidly as possible to 40 to 50 degrees F."

In connection with town and city milk trade, objections have been raised as to the flavor, and also to losing the cooking value of milk that has been pasteurized. We wrote Prof. Dean on the subject, and his reply is as follows:

"The usual way that heating milk to 140 degrees, and afterwards cooling to 40 degrees, gives a slightly 'cooked' or objectionable

flavor to the milk. At 160 degrees there is a slight 'cooked' flavor. Personally, I like this, and all the milk that is used in the college and Macdonald Hall is treated in this way. At 180 to 185 degrees the 'cooked taste' is more pronounced, and is usually objected to by most persons. This high temperature, however, is very much more effective from a bacteriological standpoint.

"Regarding the value of pasteurized milk for cooking purposes, would say that I have never heard any objections made to it at the College, and I presume it is used there for all purposes to which milk is usually put for baking and table purposes.

"You will see by the last number of the Creamery Journal, London, Eng., that extensive experiments made by a French doctor go to disprove the theory which has so long been held, that pasteurized and sterilized milk is not so nutritive as the unpasteurized. While we have not experimented on human subjects, we have found that calves thrive better on the pasteurized skim milk than they do on the unpasteurized."

Ontario Agricultural College. H. H. DEAN.

Advantage of Pure-bred Bulls.

The following argument along this line is credited to a prominent German scholar:

1. When a farmer thinks of buying a dairy bull to improve the quality of his future cows, he should look to the quality of the bull, not to the cheapness of price. The character and reliability of the breeder goes a great way in such a transaction. He should try to buy a "future" of good quality that will run on for generations, and that will help increase the good effects of every future sire that may be used.

2. He should always breed in the line of his first effort. If his first bull was a Holstein or a Guernsey or Jersey or Ayrshire, he should not break up the line of prepotencies and make a rope of sand of it. By a wise subsequent selection of sires of the same breed, selecting all the time for breeding power, he will enlarge and broaden the stream of dairy heredity. What we are after, in reality, is a better and stronger dairy heredity.

3. About the most reliable basis of calculation as to the power of transmission, or, as it is called, the prepotency of the bull, is the dairy character of the grandmothers and great-grandmothers on both sides of his pedigree. He is the stored-up result of what lies back of him. The quality of his ancestors will have more effect on his offspring than the performance of his mother. She gives to him of what she inherited more than of what she does. She may be rich in inherited qualities, and yet for some reason be herself only an ordinary performer. On the contrary, she may be a large performer at the pail, simply as a sport, but not having a strong tide of inheritance in a dairy direction, she has nothing to convey to son or daughter. This will explain why so many Shorthorn cows, that are large performers themselves, fail utterly to convey their own dairy quality to their progeny. Their line of breeding is from a beef heredity for many generations, and they give to their progeny what they inherited. A cow breeds from her blood, not from her udder. So we must have dairy pedigree as well as dairy performance, if we get our money's worth when buying a bull.

4. There is one thing more, quite necessary to consider in buying a dairy bull. Does he indicate from his appearance that he possesses a strong individual character? Is he of clear, determined dairy type, full of nervous energy, so that he will take possession of the female currents with which he is brought into contact, and thus stamp his heifers with the quality of the mothers that lie back of him?

Composition of Butter and Overrun.

The average composition of butter is about as follows:

Fat	85 per cent.
Casein	1 per cent.
Salt	3 per cent.
Water	11 per cent.

The percentage of fat should not fall below 80 per cent., nor the water rise above 15 per cent. The percentage of casein should not exceed 4 per cent. The percentage of fat in butter of good quality often rises to 86 and 88 per cent. This table illustrates what is meant by the "overrun," a common term about creameries—the overrun being the difference between the amount of butter-fat and the amount of butter manufactured. The overrun usually averages about 16 per cent.; or, in other words, 100 pounds of butter-fat by the Babcock test will make up into 116 pounds of butter.

IF YOU HAVE A FARM FOR SALE OR WANT A SITUATION, PUT AN ADVERTISEMENT UNDER THE HEADING OF "WANT AND FOR SALE" IN THE "FARMER'S ADVOCATE."

Quebec Dairy Happenings.

Cheese factories and creameries are now in operation; dairy boards have held their first meetings. The Cowansville Dairy Board resumed its weekly operations with a large attendance of both buyers and factory-men. The following Montreal houses were represented: Messrs. Hodgson Bros.; A. A. Ayer; Lovell & Christmas; A. W. Grant; Fred Fowler; D. A. Macpherson Co.; Jones, Marshal, Rutherford Co.; Hugh Allen; Gunn, Langlois Co.; John Orpe Co. President Foster thanked those present for the large attendance. The drop in prices of butter was very unfortunate just before the opening of the season. He regretted much apathy on the part of the farmers of these Eastern Townships, and there was also evidently much jealousy on the part of neighboring towns because the board was held at Cowansville. He discussed what took place at the recent meeting of the Montreal Board of Trade, with the Hon. S. A. Fisher, Minister of Agriculture, and others, to consider the question of weighing butter and cheese. He had been amused to hear Montreal exporters at that meeting tell how they had been "robbed by the farmers." The statement was so ludicrous that it called for no comment. He had been assured by Mr. Fisher that disputes such as had caused trouble in the past would in future be satisfactorily adjusted.

Mr. Foster has been the prime mover during the past year in raising subscriptions to have a suitable monument placed over the grave of the late Hon. John McIntosh, the great benefactor of the dairy farmer of these Townships. He has pledged himself to pay \$1,000 towards the erection of such a testimonial to represent to future generations the respect in which deceased was and is held. This district, so Mr. Foster is determined, shall have a leading interest in such an undertaking, and he was gratified to have received on this account several subscription lists well filled up.

Mr. A. A. Ayer said that the present low prices of butter were unavoidable just before grass butter came on the market, but prices should improve. The Eastern Townships should make nothing but butter; he wished there was not a cheese factory south of the G. T. R. He was afraid that Townships farmers would be misled by newspaper talk about cheese, and would continue to desire what they had not got rather than what they had tried and found suitable. Mr. Ayer favored concentration, amalgamation and centralization of the business in larger and better built and equipped factories. The use of the present style of building for creameries was ridiculed. Good goods could not issue therefrom. Many countries used a vast system of skimming stations to supply one enormous factory such as those of Australia, turning out 1,000 packages of butter per week, and found the method very satisfactory. There were factories in the Argentine Republic with a weekly output of 5,000 packages. True, they were not fitted up as poorly as our creameries are at present, and the cream procured at them was not drawn to the central creamery on a springless wagon, and half churned on the way; but there was no reason why we could not adopt their more advanced methods, and not only secure as high prices as other countries, but also establish a reputation for butter equal to that of our cheese. "Why," said Mr. Ayer, "the average English merchant does not yet know that Canada makes butter." The speaker was much opposed to the farm separator system, as it took the control of the cream as it came from the separator out of the hands of the buttermaker, and caused the necessity of watching hundreds of batches of cream in order to guard against bad flavors, when, with fairly large skimming stations, only a very few would have to be watched. The centralization of labor was a means of greater economy, and the absurdity of 100 men, horses and wagons doing the work that five or six could be hired to do was emphasized. Mr. Ayer accused some factories of including in shipments butter made after the weekly board meeting. To this statement Mr. Foster objected, but Mr. Ayer said he had no fault to find with the board as a whole, yet he reiterated his statement, that rules, theory and practice often varied. He advised the adoption of a system of marking each day's make by itself, and thus aid in tracing any poor goods to the very day of its manufacture.

Mr. Jas. Burnett pointed out that a resolution to that effect had been incorporated in the by-laws at the meeting held on the first day of April last. Mr. Foster and Mr. Ayer both advocated Montreal inspection, as doing away with the expense of country inspection would enable the buyers to pay higher prices, and create more competition among buyers for Eastern Townships goods.

The business of the day was then proceeded with, 751 boxes of butter being offered for sale by 20 creameries, and 43 boxes of hay cheese by two factories, both of which refused 10 cents per pound, Montreal inspection. The highest price realized for butter, 18½c., was only got by four creameries, the remaining sixteen having to accept 18¼c., at which all the rest of the offering were sold.

Co-operation in Siberia.

The Siberian Listok gives the number of butter factories in the Tobolsk Government of Siberia as 694, using 1,214 separators, employing 1,629 hands, and having worked 10,487,417 pounds of milk in the year 1904. The number of co-operative societies included in the above was 168. The Siberian butter business has been seriously interfered with by the war.

Paying by Test, and Summer Care of What the Cream Separator Has Done for Factory Milk.

In regard to the system of paying the patrons of our cheese factory for the milk they deliver, by the result of the Babcock test, plus two per cent., I would say that this system was first adopted in 1899, and has been in operation ever since. At the annual meeting at which that system was adopted there were only four patrons who voted against it, and at every annual meeting since then a motion something like the following has been passed unanimously: "Moved and seconded, that we continue to pay for the milk delivered at our factory by the result of the Babcock test, plus two per cent." And no one has had the temerity to make a contrary motion. The cheesemaker is paid 50 cents per patron to remunerate him for the extra trouble entailed, and to help purchase the preservative and keep up the Babcock testing machine. When the milk has been poured into the weigh can at the factory, the cheesemaker takes a small sample of the milk and puts into a bottle; the bottles are kept convenient on shelves in the weigh porch; each bottle has the patron's name on it. A little of the preservative is added, which keeps the milk from spoiling, and at the end of the month the contents of the bottles are put through the Babcock tester, and the test, plus two per cent., entered on the milk book on the page allotted to each patron. The secretary first adds up each patron's milk for the month, then finds how much butter-fat, plus two per cent., his milk contains; then the latter amount is multiplied by the price per pound of butter-fat. The system entails considerable extra work on the cheesemaker and secretary; but it seems to give good satisfaction. As a general rule, perhaps about nearly 75 per cent. of the patrons send milk which runs about the average. Some of the remaining 25 per cent. test high and some low, but, as a general rule, it is the same patrons who always test high, and there are some whose test is generally low. There is, of course, a difference in cows; some cows give much richer milk than others, and some pastures are better than others, and especially in hot weather it makes a great difference how the milk is taken care of. It should have the animal heat removed as soon as possible after milking.

We use a large bowl, capable of holding about two pails; this bowl is perforated with small holes, and has legs which rest on top of the milk can, keeping the bowl about 18 inches above the top of milk can. In very hot weather we set the can in a tub of cold water convenient to the pump, so that we can add more cold water to replace that which the milk has warmed. The milk is poured from a strainer pail into the aerating bowl, from which it slowly flows into the can in small jets, thus allowing the animal heat to pass off into the air. When the milk has all flowed into the can, we take a pail which has a stiff (not a jointed) ball or handle, and has its bottom perforated with $\frac{1}{4}$ or $\frac{1}{2}$ inch holes. This pail is put into the can and lifted and held up as high as possible, until the milk runs out at the holes in the bottom; this operation is repeated until the milk has completely cooled off. There have been several machines invented to agitate or stir the milk, and run by clockwork weights, but so far we have not seen any one which was a complete success. The idea for the cheese factory patron to hold uppermost in his mind is to keep the milk moving until all the heat has been extracted, and as much as possible keep the cream from rising, and keep it incorporated in the milk. When the cream is allowed to rise to the top and coagulate in very hot weather, a considerable portion of it finds its way into the whey tank. The milk should not be violently agitated, for then the motion is apt to have a churning effect, but the ailing should be done gently. We have kept Saturday night's milk sweet and fresh to send on Monday morning in very hot weather, but when it is cooled and aerated it should be taken into a cool cellar or other room where there are no bad odors. Of course, certain kinds of thunderstorms will be apt to sour milk, even if the best of care has been taken of it.

The cows should have free access to salt, or have it placed before them regularly at least twice a week. Kind treatment is of the utmost importance, and chasing by dogs should not be allowed. If a dog is used to drive the cows, he should be carefully trained to do his work very gently. The cows should not be allowed to drink stagnant water or whey or swill, or anything of that nature, but should have free access to clear running water, or to good well water. A change of pasture is of great benefit to milking cows. It is a good plan to have two pastures, changing the cows every three weeks, and when the weather gets dry and hot it is well to have peas and oats, lucerne, or some other feed, to supplement the pastures with, and then in the fall corn, mangels, or greystone turnips. Cows should not get all the greystone turnips they can eat, but should get good hay or cornstalks along with them. It is when greystones are fed exclusively to hungry cows that the milk gets tainted. JONAS.
Claimer Ha Lea.

A writer in an American exchange recommends placing four or five china eggs alone in the nests to discourage egg-eating. He says he has found this plan very effectual, as the hens cannot get any satisfaction out of the nest eggs, and soon get tired trying.

By Laura Rose.

It is twelve years since I became especially interested and identified with dairy work. Separators were then quite a novelty, and comparatively few were to be found in use on the farms. My broad acquaintance with rural districts has afforded me a good opportunity of noting the introduction of these machines and the changes they have brought about in the dairy industry of the Dominion.

We have to acknowledge that in years past Canadian butter has had a poor reputation in foreign markets. This may be largely attributed to the custom of storekeepers buying all grades of farm butter, and reworking and packing it for shipment; also to lack of knowledge on the part of makers in creameries, which resulted in a great variety of grades of butter.

The invention of the cream separator gave a great impetus to the butter industry, and revolutionized the handling of milk and cream. Shortly after this, the establishing of dairy schools supplied the long-felt necessity of skilled makers.

Being able to get the cream directly from the milk, and having it manufactured into butter by men who not only understood the scientific principles underlying successful buttermaking, but also the requirements of the foreign trade, has brought about a slow but steady change in the quality of our export butter, and now we feel we have established a name for ourselves in the British market that we need not be ashamed of.

The cream separator on the farm has also done much to raise the standard of dairy butter. Setting the milk to allow the cream to come to the top by gravity, usually resulted in the cream being overripe before a churning was collected. With intelligent care of the separator and cream, not only a better butter is obtainable, but considerably more of it, and, of course, this adds materially to the revenue of the dairy.

Very much less butter is made on the farms now than before the advent of the separator. This is desirable, for it means that a greater bulk of butter of uniform quality can be manufactured for export in creameries.

It has taken time to change the system of farm dairying to co-operative dairying, but the separator, more than any other one thing, has been influential in inducing the farmer's wife to give up her churning, for, after all, hard-worked as she is, she is the one who usually holds out the longest.

The first, and the one considered still the better, is the whole-milk system. The milk is taken to the creamery and there separated, and the skim milk returned to the patrons. It is claimed by many buyers that butter made in whole-milk creameries is of superior quality, but there is considerable disadvantage to such a system. The keeping of a large quantity of milk from getting overripe in warm weather before getting to the creamery, the hauling of the same, the re-heating of the milk at the creamery, the pasteurizing and cooling of the skim milk so that it may be returned in good condition for the stock, all means an expenditure of both time and money.

The general introduction of the hand separator on our Canadian farms has brought about another system, and one which appeals more strongly to the farmer. The milk is separated at the farm, and only the cream sent to the creamery. This means fresh, warm milk, ready at the right time for the young stock, no cooling of the milk, or expense in hauling such a quantity to the creamery.

Some cannot speak too strongly in denouncing the cream-gathering system, but I have always tried to see things from the farmer's standpoint, and much can be said in favor of separating the milk at home.

One trouble in having the cream delivered seems to be that the majority of farmers take too poor a cream. To do the best work in creameries, it is necessary that the cream contain a moderately high percentage of butter-fat—30 per cent. is considered about right. The patrons should do all they can to meet the wishes of the makers in this respect. By the proper adjustment, and a uniform speed and feed, all reliable makers of hand separators should take a 30-per-cent. cream, with no undue loss of fat in skim milk.

Another still more serious defect in having the milk separated on the farm, is the lack of care of the machine and the cream. To have pure cream it is absolutely necessary that the machine be well cleaned and scalded after each time of using. With the proper brushes and plenty of hot water, this is not a hard or long task with the majority of makes of machines.

Much complaint has been justly made of the bad flavors found frequently in separator cream, and usually, I think this is due to the fact that many do not immediately and quickly cool the cream. It is difficult, if not impossible, to make a first-class butter without doing so. The can containing the cream should be placed in cold water, and the cream frequently stirred until the

temperature is reduced to between 50 and 55 degrees, and should be held at that until called for by the cream collector. One of the inexpensive, simple coolers may be used where the quantity of cream is great.

I have heard men say you can't get farmers to properly care for the separator and cream. I don't believe it. I have more faith in their ability and desire to do the proper thing. In many cases the neglect is only due to their not knowing what is required of them. I feel sure the patrons will co-operate in every way they can with the makers to build up our reputation, until no better butter than that made in Canada is found on the markets of the world.

In closing, I would like to say a few words about the care of the separator. The very best and strongest of them is a delicate machine, and needs careful treatment. To cause the least strain on the parts and to insure smooth running, the floor or foundation on which the separator stands should be firm, the machine perfectly level and securely fastened down. All the bearings should be free of grit, and every week or two well flushed out with coal oil.

The high speed at which the machine runs, makes it most necessary that it always be well oiled, and only the oil furnished with the machine, or equally fine oil, be used. Speed should be gotten up slowly, and in turning the crank the same pressure should be applied all the way around. Before turning on the milk put through a little hot water to warm and wet the bowl.

Milk always separates best immediately after it is drawn from the cow. If it cools below 80 or 85 degrees it should be heated to about 100 degrees, although no harm is done by getting it quite hot. Run the machine up to the stated revolutions; never below, or there will be an extra loss of fat in the skim milk. A machine doing good work should skim to .05, and never should have over .1 per cent. fat left in the skim milk. If there is a thin scum of cream on the separated skim milk, something is wrong.

Have the flow of milk into the separator as even as possible. The quantity of milk in the receiving can has much to do with this, and should be kept reasonably full all the time.

When finished separating, the bowl should be flushed out with warm water and the machine allowed to run down of its own accord.

Care should be exercised in taking the machine apart and putting it together not to blunt or bend any of the parts. I have seen good machines seriously injured by a little carelessness in this regard.

Where a herd of dairy cows is kept, a separator is now considered almost a necessity. It certainly is a paying investment, and few farmers can afford to be without one.

Cheap Labor in Denmark.

Primrose McConnell gives one reason why the Danes succeed in competition with other countries. He says: "One of a deputation to Denmark gives the balance sheet of a small farmer, where the work is done all by himself, his wife and family, and it appears that after deducting interest or rent in the value of his farm, the combined labor of the whole family realized about 10s. a week. The same family in England would probably earn £2 per week, so that the labor in Denmark only costs a fourth of what it costs in England. But that is not all: People who work for themselves work harder than paid servants, so that more work is done for the 10s. than we get here for £2. No wonder, therefore, that we cannot compete in cheapness of production with such people, and no wonder that peasant farming does not succeed in this country. It may be that the Danish peasant proprietor is satisfied with his lot, and that he leads a happy, healthy life, but it is one that will never 'catch on' here on such terms as he is satisfied with."

Coal Cinders for a Cow Stable Floor.

To the Editor "Farmer's Advocate":

I think I have found a good and cheap way to make a cow stable floor. We had simply a clay floor, with planks for the cattle to stand on. Last fall we thought of a new plan. We cleaned out all the old planks and rubbish, then we stood one good plank on its edge just behind where the cattle's hind feet would be. Next we laid two planks side by side behind this, and about three inches below the top of the other, for the droppings to come on. Of course, we staked these planks solid to their places. The side of the upright plank rests against the post at the end of the stall and goes down about three inches below the other planks, thus keeping it firm; next we got some limestones, broke them up into small pieces, and put them where the cattle would stand; we didn't put enough to make it level with the top of the upright plank. We then got some coal cinders from a salt-block that was near, and put them on the small stones and packed them down solid, making the surface level with the top of the upright plank. We also filled up behind the other two planks with the

cinders. There was a lot of dirty salt in the cinders, and it seems that the cinders won't pack at all without the salt. I thought this might be of use to some of the readers of the "Farmer's Advocate," which, I think, is an excellent paper. NOBLE HOLLAND.
Huron Co., Ont.

GARDEN AND ORCHARD.

Celery.

When the peas are all picked by the end of June, the land can be cleared of the straw and cultivated for a second crop of celery. If enriched with manure at this time it will quicken growth, and leave the ground in good heart for the next season's crop. Trenches have been given up by commercial growers, but have some merit, for plants so placed are more easily moulded up, and more effectually watered than when on level ground.

Celery is a gross feeder, and will readily absorb water, whether in the form of liquid manure or clear, and should make strong growth before any earth is drawn up to it, for apart from the regular hoeing, this work of "handing," as it is called, is very necessary, gathering the leaves together with one hand, while drawing a little soil around the plant with the other. In small gardens, when there is plenty of time, it is a good plan to tie loosely a bit of bass string around each plant, to keep the earth out of the heart, otherwise it makes a stunted growth. Of varieties, "White Plume" for early, and "Giant Paschel," or any of the larger, good-keeping varieties are good. The plants must be raised under glass, and exposed to the air in June, after being transplanted to make them stocky and strong.

Celery is a valuable winter salad, and also makes a palatable vegetable, stewed and served like cauliflower. Packed away in sand before hard frost comes, it will keep well if the cellar is cold and of even temperature, and can be used for the table by taking out the center stalks that are tender to eat raw, and cooking the rest. If used as a remedy for rheumatism, for which it is so often recommended, the stalks should be cut into inch pieces and boiled until soft in a small quantity of water, and none of it must be thrown away. A little new milk and flour mixed with it, and a bit of butter added, will make a palatable dish, and is recommended as correcting acidity of the blood, which is the primary cause of rheumatism, and the power that sustains it.

In growing this plant it must always be remembered that it craves plenty of water, and after growth is established the soil must be frequently stirred, for quick growth in cool weather is what makes tender stalks.

There are two diseases that attack celery, and they are usually the result of planting on unsuitable soil. Rust is shown by yellowish spots on the leaves, and blight by watery spots, followed by black dots. Healthy plants and good soil will generally keep these diseases at bay, but if attacked the remedy is an application of Bordeaux mixture. ANNA L. JACK.

Apple Shippers' Complaints.

An Ottawa despatch states that the Railway Commission have communicated to the railways a petition by 75 per cent. of the principal fruit exporters, complaining about the inadequate shipping facilities in summer and fall from inland points to the seaboard, and in winter from shipping points to home markets. The petition reads:

"The freezing of apples in transportation during the last two or three winter seasons caused most serious losses to exporters, and in many cases wiped out the profits of the entire season, besides bringing Canadian fruit into bad repute in the British markets."

It further alleges that the Grand Trunk have refused to use Economy heaters on their cars in winter, although the C. P. R. have done so, and concludes by appealing to the Commission to compel the Canadian railways to furnish suitable heaters and refrigerator equipment, so that proper protection may be afforded for what is becoming one of the principal exports of Ontario.

Fruit and Flower Show Officers.

The following officers of the Provincial Fruit, Flower and Honey Show, to be held in Massey Hall, Toronto, in November, have been selected: President, R. J. Score, Toronto; Vice-President, W. H. Bunting, St. Catharines; Second Vice-President, John Chambers, Toronto; Secretary-Treasurer, H. B. Cowan, Toronto. Executive for the Fruit-growers' Association—W. H. Bunting, St. Catharines; P. W. Hodgetts, Toronto; Alex. McNeill, Ottawa. For the Toronto Gardeners' and Florists' Association—G. W. Douglas, Davisville; W. J. and E. F. Collins, Toronto; T. Manton, Eglinton. For the Horticultural Society—H. R. Frankland, W. G. Rook, H. Simmers, Chas. Chambers. For the Electoral District Society—R. J. Score, W. B. Saunders, J. H. Dunlop, John Chambers. For the Ontario Beekeepers' Association—H. G. Sibbald, Claude; R. H. Smith, St. Thomas; F. J. Miller, London; W. Couse, Streetsville. Ontario Vegetable-growers' Association—W. A. Emery, J. Aldershot, and those others to be named later.

Two good things for the cow stable: Sun-light and whitewash.

Spraying Plum Trees.

What is the best time to spray plum trees, and what is a good mixture to spray with?

Oxford Co., Ont. W. D. RAYNE.

Ans.—There is no "best" time, and no "best" mixture. There are right materials and proper times to use them. See spray calendar in issue of March 30th. During the first warm days of early spring you should have applied Bordeaux mixture for black knot, and later, when the buds are swelling, Bordeaux again for black knot and other fungous diseases, and when blossoms had fallen, Bordeaux again, followed by two or three more applications at intervals of ten to twenty days. Still later applications of fungicides may be necessary to prevent leaf-spot and fruit-rot; for these late sprayings use ammoniacal copper carbonate. Generally speaking, the early sprayings for fungus are the more important, but there is no guarantee of results unless the work is done thoroughly and persistently. For the plum scale, spray with kerosene emulsion when the leaves are off in the fall, again in midwinter, again before buds start in the spring, and again when the young scale insects first appear in summer.

Canker worm is a pest that may necessitate spraying the foliage with Paris green. It should be done as soon as the caterpillars make their appearance. Usually this will not be until after the blossoms have fallen; one or two subsequent sprayings may be necessary, at intervals of eight or ten days. The Paris green may be applied along with the regular spraying of Bordeaux, and it is probably wise to include it in the first and second sprayings after the petals fall.

For plum curculio, the best known remedy is to jar the trees early in the morning before the beetles are active. The insects fall rapidly from the trees, and may be caught on sheets. When ordinarily abundant, jar the trees every second or third morning, beginning as soon as the blossoms have fallen. In severe cases daily attention may be needed. Jarring the trees should be continued until the beetles are no longer caught on the sheets.

To Fight Tussock Moth.

A great effort is being made in Montreal to minimize the ravages of the tussock moth, and towards that end \$100 has been placed by the city council, at the disposal of a committee of the Natural History Society, for the purpose of offering prizes for the largest collection of eggs up to May 20. The following awards will be made to collectors: Twenty-five cents for every hundred egg clusters; for the largest collection of eggs by any one collector, first prize \$3, second prize \$2, third prize \$1.

POULTRY.

Lice.

To the Editor "Farmer's Advocate":

I am almost afraid my veracity will be questioned when I say that I have visited a poultryman in whose henhouse I could not find a louse, either about the building or the fowls, though I picked up several of the birds and examined them carefully. The proprietor told me that when the house was painted inside and out a few months before, he had offered the painter a dollar for every louse he would find about the building, and was not called upon to pay for a single insect. I expected that he had some wonderful remedy for this poultry pest, but in this I was disappointed; yet his method of dealing with it was not quite like any other I have seen. The roost house is large in proportion to the number of fowls, the roosts running across the end the narrow way.

Thorough ventilation is given at all times, and there are large windows in both long walls. The building is made of sealed lumber inside and out, and has a cement floor. Not a bit of dirt is allowed in the house—not even a dust box. The dropping boards are cleaned frequently, and the boards, roosts and surrounding walls sprayed with kerosene. He throws a handful of insect powder into each nest occasionally. There is nothing upon the floor but clean straw; when it shows any sign of getting dirty it is removed, and a clean supply put in its place. He puts nothing on the fowls. His theory is that if the building is properly ventilated and kept clean, so that it cannot harbor lice, the birds will rid themselves of the pests. They only fail to do so when a fresh supply keeps coming from the building.

This seems like an easy solution of a serious difficulty. Lice not only annoy fowls, but are the source of half their ills. A hen cannot lay well when her vitality is sapped by vermin, nor will market poultry fatten properly. These insects spread all manner of diseases, and one of the worst evils which is due to them often passes unnoticed. The infertile eggs, which waste the time of the hen that tries to hatch them and the

work of the person who has set her, are often due to the presence of lice. A friend of mine who had purchased a cock which seemed to be a vigorous bird, complained that eggs from his pen would not hatch. I picked him up, and found his fluff full of lice and the vent swollen and irritated to an extent that rendered him useless as a breeder. After he was thoroughly dusted a time or two with insect powder the eggs from his pen became fertile.

Keeping the chicken house thoroughly clean is the best remedy for lice, but if they are found upon fowls the birds should be thoroughly dusted with insect powder, and it is of great assistance to the hens in keeping the pests off to put under the chickens' wings an ointment made of lard mixed with very strong tobacco powdered fine.

I think I neglected to say that the fowls kept in the house mentioned above were allowed a dust bath outside, though not inside the house. Dust is a chicken's natural defence against lice, and I have always supposed that a dust box in a roost house was a good thing, but the fact that this was the only chicken house which had contained chickens for two years and remained absolutely free from lice, has gone a long way toward converting me to the doctrine of absolute cleanliness. W. I. THOMAS.

Minn.

APIARY.

Transferring.

When the fruit trees are in bloom is one of the best times to transfer bees—that is, to change their combs into movable frame hives from box hives, or hives which, though originally intended to be movable-frame hives, have, through neglect or ignorance on the part of the owner, been allowed to get into such a condition of crooked and "criss-cross" combs, that they are to all intents and purposes box hives—and this article is to tell the farmer how to go about the operation. The movable-frame hive should be put together well, with cover and bottom-board loose, and the frames should be nailed up, but not wired. Some pieces of stout twine or fine wire should be cut, long enough to reach around a frame from top to bottom, and tie or twist together at the top, and these should be laid down about six inches or less apart, crosswise on a smooth board and the frames laid on them, so that when a frame has been filled with comb the twine or wire may be fastened around it to hold it into the frame until the bees have time to fasten it firmly. Lay down some more pieces of board for an operating table. Begin operations about 10 a.m. on a fine, warm day, as then many of the bees will be at work in the fields, and besides, the brood may be handled without danger of its being chilled. Light up your smoker. If you haven't a smoker, get one. Put on your veil if you want to, and give the bees in the box hive a good smoking, and tap on the sides of the box to make them fill up with honey. Allow them a few minutes to fill up, and then remove the cover of their box and set the new hive on top, with a couple of empty frames in it for the bees to cluster on temporarily. Then smoke the bees just enough more to get them "running," and drum on the sides of their box more or less. They will nearly all run up into the new box and cluster there, when it should be removed and placed on its proper bottom board. Now, lift away your box hive and set the new one in its place. Run a long knife around the inside of the box to loosen the combs whenever they may be attached to the box. If this cannot be done from the top it will be necessary to remove the bottom of the box, and do it from there. Then turn the whole business upside down on your operating table, and lift the box from around the combs. You now have the combs where you can get at them. Never mind the bees crawling around, for at this stage of the game they are as harmless as flies, unless you happen to squeeze one of them. Slice off the comb with a knife. If it has only honey in it and is new comb, put it on a plate for future reference. If it is drone comb, either empty or with brood in it, chuck it out. If it is worker comb, cut it as near as possible to fit your frames without cutting through the brood any more than necessary, and fit it into the frames. Tie it there, as before mentioned, and place it in the new hive as soon as possible. If there is not enough comb to fill all the frames, the remainder should have full sheets of foundation inserted and be placed at one or both sides of the frames containing brood—never between them. Throw any broken pieces of comb containing honey into the old box, and set it under the new one a day or two after transferring for the bees to clean up. After a week or so the hive may be opened and the string or wire removed from the comb which will by that time be found fastened firmly into the frames. F. F.

NEWS OF THE DAY.

Canadian.

The Ontario Government has decided to appoint a commission to deal with the question of electric railways in the Province.

A movement is afoot in B. C. either to establish a provincial university or to develop the present college so that McGill degrees may be obtained by a course at it.

The turbine steamer Victorian, which arrived in Montreal on May 8th, is the largest vessel that ever entered that port.

Immigrants to the number of 1,000, chiefly English and Scotch, arrived in Toronto, May 7th and 8th; 1,200 more are en route from London, and 1,500 from Glasgow, bound, for the most part, for the Canadian Northwest.

Government engineers are inspecting the cliff at Quebec, and steps will be taken to prevent further falls of rock.

The by-law granting a bonus of \$300,000 to the Grand Trunk Pacific for the purchase of the mission property at Fort William was carried by a large majority.

British and Foreign.

An earthquake in Persia has caused much damage and loss of life.

Twenty-four people were killed and much damage done by a cyclone which swept over Marquette, Kansas, recently.

One thousand men have been fighting forest fires in Mass. this week. In Maine over \$50,000 loss has been occasioned by similar fires.

Joseph Chamberlain has been obliged to cancel all engagements owing to ill health.

The headquarters of the Russian revolutionary committee, organized by Father Gapon, is to be established at Geneva, Switzerland.

The autocratic party in Russia, displeased at the procedure of the second Zemstvo Congress which met at Moscow recently, has forbidden the newspapers to make any mention of it. The Congress had asked for two Houses of Parliament, with an elective system based on that of the French.

Fifty have been killed and one hundred injured in a terrific wreck on the Pennsylvania Railway near Harrisburg.

Strangely suggestive news comes from the Far East this week. In the first place, it is reported that the Russian Red Cross Hospitals are to be moved from Harbin to Chita, an almost incredible movement, since it would completely cut off Vladivostok and Kirin from outside help from Russia, and leave the whole eastern portion of the Great Siberian Railway virtually in possession of the Japanese. Another report states that a detachment of Linevitch's forces has begun an aggressive movement from the north-east into Corea, the object being to ward off the advance which is being steadily made toward Vladivostok, so steadily and systematically that it is now surmised that Japan's whole course of action, both by land and sea, is being directed towards it. Otherwise Togo's strange silence and inactivity cannot be explained. Naval critics, in fact, now express the opinion that Togo will make no attack upon the Russian fleet, other than to harass it with torpedo boats, until it has arrived at Vladivostok, which will then be invested by sea and by land, as was done at Port Arthur. In France, Japan's agitation re the observance of neutrality and expulsion of the Russians from French ports in the East, is looked upon as a plot to have Rojestvensky driven northward into this trap. However that may be, in order to avoid possible complications, France has given explicit orders that the union of Rojestvensky and Nebogatoff must not take place within French waters, and every precaution is being taken to prevent the possibility of any further charge of breach of neutrality.

A Razor Edge.

Please find enclosed \$1.50 for my renewal subscription to the "Farmer's Advocate and Home Magazine." Let me now thank you for the premium knife. It is as good as anyone could desire. Will take an edge and keep it as good as any razor. It more than pays for the little trouble of securing new subscribers for your (our) excellent journal. A. T. REED. Simcoe Co., Ont.

If You Want Anything

AND DON'T KNOW WHERE TO GET IT, AN ADVERTISEMENT IN THE "WANT AND FOR SALE" COLUMN OF THE "FARMER'S ADVOCATE AND HOME MAGAZINE" WILL GET IT FOR YOU. THE FARMER'S ADVOCATE AND HOME MAGAZINE, LONDON, ONT.

THE FARM BULLETIN

Toronto World: "The most serious obstacle to the development of cheap telephones is the want of a law compelling every telephone system to interchange business with every other telephone system on reasonable terms, just as railways are to-day compelled to interchange traffic."

Public school teachers should bear in mind that this year "Empire Day," the day before "Victoria Day," falls on Tuesday, May 23rd. It should be celebrated by a patriotic programme, inculcating national sentiment, including the hoisting of the British flag or the Canadian Ensign.

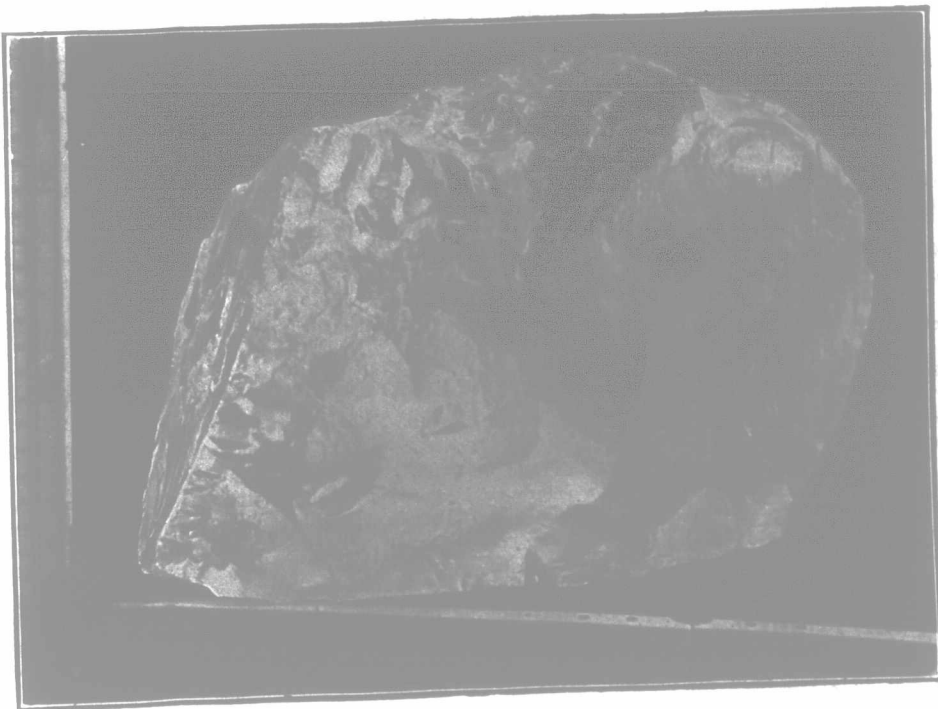
A dairy school on wheels has been inaugurated for the development of the dairy industry in some of the Western States. It is composed of a train, one car being devoted to an exhibit of the various kinds of feed, and the others to various dairy demonstrations. The train stopped 40 minutes at each station on its first trip, and over 4,000 farmers visited it and took advantage of the lectures.

Shall We Have Diamond Fields?

Dr. Ami's recent assertion that the Hudson's Bay district is likely to prove rich in diamonds has naturally aroused much interest throughout the Dominion. For the alert little French-Canadian's words are not to be put lightly by. He is noted as an expert in geology and mineralogy, and by virtue of his researches holds his position as geologist of the Dominion Geological Survey. Above all men in Canada, perhaps, is he acquainted with old earth and her moods, and to him the rocks often speak when to others they are silent; it was he, it will be remembered, who, last November, predicted the downfall of rock which recently took place at Quebec, and it is not beyond possibility that his words regarding the Hudson's Bay district may be verified as strikingly. In his opinion, moreover, he is not alone; already eight valuable stones have been found in Wisconsin, Illinois and Michigan, and several American scientists have expressed the opinion that rich diamondiferous soil is likely to exist further north at the head of the same glacial drift.

We neither predict nor hope for any great and sudden movement to these prospective fields—for in all such rushes there are more hearts broken than mended—yet we can but endorse the opinion that has been expressed by Collier's: "If the dreams of diamond clay do no more than lure the planter to till and seed the rich loam fields encircling James Bay, it will have done its full work, and the northland harvester may, like the poet, say, 'While looking for a lamp I found the sun.'"

Our illustration shows the actual size of the big "Cullinan Diamond," the largest in the world, which was recently discovered in another British colony, the

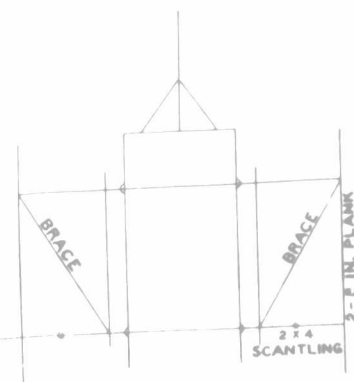


The Cullinan Diamond.

Recently discovered in South Africa, and valued at \$5,000,000.

A Folding Corn Marker.

Having used many different styles of corn markers, I send you herewith a drawing of one which I made myself, and which I find satisfactory in every way. In the first place, my marker will mark on ground which is not perfectly level, and besides, it can be folded up when driving from one field to another. Then, on coming to end of row, one side can be folded up so as to allow of driving closer to fence.



It will be seen that this marker is in three sections. The sections are hinged together, and can be taken apart the same as a harrow. The runners are made of 2 x 8 inch plank, the rest of 2 x 4 inch scantling. The two outside runners should not be quite so long as the center ones, and a marker can be attached to mark next row, if required. FARMER.

Lambton Co., Ont.

The Embargo Still Stays.

The new Chairman of the British Board of Agriculture, Hon. Mr. Fellowes, replying to a deputation on May 11th, said he could hold out no hope while he held office of removing the embargo on Canadian store cattle. He said there was a very strong feeling in the British House of Commons against doing so. He admitted that there was no disease in Canada, but still did not propose to run any "risk." The price of beef had not gone up, and the embargo was not to protect the Irish farmer, but was in what he described as "the general interest."

Transvaal. It was dug out of the Premier mine there with a pocket-knife, by Mr. Fred Wells, Superintendent of the Mine, and when examined was found to weigh about 1 1/2 pounds, its dimensions being 4 1/2 x 1 1/2 inches. It is a "white" diamond, and, being the purest of the "big" ones, is valued at about \$5,000,000. There is at present a proposal afoot to purchase it by popular subscription and present it to King Edward, but it is safe to say that he will not likely wear it in his crown. Canada may never contribute such a jewel to Britain's riches, yet who knows? Further developments in regard to the Hudson's Bay district will, at all events, be watched with interest.

Fly Time and Cows.

Fly time will soon be here, and with it the annoyance of caring for milch cows when they are pestered with this nuisance. A few years ago sprays of different kinds were extensively advertised and sold as fly panaceas. One seldom hears of them lately, because it was a great nuisance to keep continually applying the spray.

A few dairymen understand how to keep the stable cool and dark, and they know that flies do not remain in cool, dark places. Cows housed in stables that are free from flies, make for their comfortable quarters in a hurry when returning from pastures. One dairyman who exercises especial care over his cows in fly time, bought a number of brooms and fastened them in a dark runway leading to the stable; the cows in passing through between the brooms were brushed from their horns to their tails, and most of the flies were swept off. The stable was kept dark all day, and the cows could eat their evening ration of silage and be milked in comfort.—[Farm Stock Journal.]

Great Britain's Horse Imports.

For the past few years there has been a regular and almost continuous diminution in the numbers of horses imported into Britain from foreign parts. During the quarter just closed official statistics record a decrease in the imports of nearly 50 per cent., as compared with last year. Thus, during the first three months of this year the number of horses imported amounted to 2,900; the total last year reached the much larger figure of 5,372, and in the corresponding period of the preceding year the still greater aggregate of 6,077. During the quarter, under review, the horses imported from the United States numbered 440; about seven years ago the corresponding total was close on 11,000.

To Amend the Automobile Act.

Farmers will learn with interest that a bill is now being considered in the Ontario Legislature to amend the Act to regulate the speed and operation of motor vehicles on highways. The proposed amendment provides that on each side of such vehicle, in a conspicuous place, and in figures at least eight inches in length, and also upon the lamps on each side, to be lighted after dark, shall be carried the number of the permit issued by the Provincial Secretary (as heretofore provided), so that the same shall be plainly visible at all times.

In the amendment is also included a section to repeal the existing Provincial regulations regarding speed, conduct, etc., and to vest in the county, city and town councils the power to pass by-laws regulating and governing, though not licensing, persons using motor vehicles, and the speed thereof, with power to prohibit certain classes of motors from travelling on such highways as are specified in the by-law. Though favoring the first part of this Act, we can scarcely approve the latter, which would be liable to result in a diversity of regulations unnecessarily troublesome, especially to tourists traversing several counties. There is also the danger of over-severe measures being adopted in some counties, while in others the regulations might be too lax.

The "Farmer's Advocate" will heartily welcome any well-advised means of protecting the farmers, who keep up the roads, from the excesses of the few autoists. The existing law seeks to do this, but some of last season's occurrences indicate the need for a more effective means of enforcing the regulations. A difficulty that always presents itself in bringing offenders to task is identification. This, it is expected, will be facilitated by the rule compelling the carrying of larger numbers than before, in the conspicuous manner prescribed.

The autoist is a difficult trespasser to regulate. His means of rapid volition, and his own comparative impunity, are facts peculiarly aggravating to the victim of horse fright, and the instances of flagrant violation of the laws of common civility have in many parts of the United States driven exasperated horsemen to propose drastic measures. The automobile we have with us, and must tolerate, but the evils attending its improper use call for rigid enforcement of stringent regulations, which will be insistently demanded by the farming community, that bears the burden of keeping up the roads.

Vegetables for Poultry.

Because the fowls are on the range and hunting insects in the grass with plenty of green food all around them, it does not follow that they would not relish some of the things which will be later waste products of the garden. They may not like radishes, but try them with a few of the beets and lettuce plants for which you can find no room when you come to transplant. Gather the material of this kind from the garden when the time comes, and let the fowls pick it over. They will find enough in it that they like to give some of that variety which they crave.

By the way, also try the plan of having a pile or two of dry sand on the range so that the fowls can dust when they feel like it. You'll be surprised to see how many of them will use this dust pile. Then don't forget that fowls on the range get thirsty even more quickly than when in the confines of the house and yard. Place the water in the shade, and furnish a fresh supply several times daily.—[Farm Journal.]

Thirty Years' Trial.

Enclosed please find postal note for \$1.50 for renewal of my subscription. I would not like to be without the "Farmer's Advocate." I think I have been a subscriber for nearly thirty years, and it is getting better every year.

P. E. I.

T. ROBERTSON.

Cerebro-spinal Meningitis.

The new disease, cerebro-spinal meningitis, has awakened an interest almost amounting to a panic in New York City, and physicians are finding it the hardest problem among contagious diseases which has fallen to them to investigate. Committees have been appointed to investigate and report upon the disease, but as yet little headway has been made, although the bacillus which causes it has been isolated. That the need of remedial measures is immediate may be judged from the fact that in March alone out of 167 cases in New York 84 deaths occurred. As in all other germ diseases, perfect cleanliness, pure air and water, and wholesome food are the best preventives. Should the disease, however, make its appearance in Canada, it is well to remember that hot baths taken very frequently, and frequent spraying of the throat and nasal passages with water containing one per cent. of carbolic acid have been found of benefit. In its earlier stages the disease is said to resemble strongly distemper in animals.

The Pure-seed Propaganda.

The second annual meeting of the Canadian Seed-growers' Association will be held in Ottawa, June 27th, 28th and 29th next. The provisional programme includes addresses or papers by a large number of the leading experts.

Arrangements have been completed by the Seed Division, Dept. of Agriculture, Ottawa, for holding a series of field meetings in districts where clover seed is largely grown in June next, after the plan of the orchard meetings held by fruit men. Four deputations will operate in Ontario, one good Farmers' Institute speaker and one weed expert being on each. The seedsmen are to have a representative at each meeting to speak on the subject of seed production from the seedsmen's standpoint. Mr. Putnam, Supt. of Institutes, is co-operating with the Seed Division in the arrangements being made.

The Agriculture and Arts Act.

To the Editor "Farmer's Advocate":

Sir,—In your issue of the 4th inst. I notice an article entitled "Overhaul the Prize-Hsts.," in which reference is made to the revision being made in the Ontario Agriculture and Arts Act. From this article I judge that you expect to see the change in the Act introduced at the present session of the Ontario Legislature. Any change contemplated this year will probably not be introduced before the session in 1906. The interests concerned in a change of this kind are so great it has been decided to delay action until a complete investigation of existing conditions and the probable effect of the changes contemplated can be made.

H. B. COWAN,
Supt. Agricultural Societies.

Dr Osler says "Stay at Home."

At a recent dinner given by McGill men in New York City, Dr. Osler spoke of the advantages of remaining in Canada. What use could there be, he asked, in talking about an American annexation of Canada, seeing how much of what is good here in America is being annexed by the Dominion. "But there is one thing I must say to you in connection with this," he resumed. "I really think it is a shame that so many of you have crossed the border. Seriously speaking, I do wish that a greater number of you would stay at home, and, in particular, I must urge you not to bring the Canadian girls here."

Reduction of Postage to Canada.

The Dundee Advertiser, referring to the reduction of book postage rates in Canada and the Postmaster-General's refusal, says: Even if this particular reform were to result in loss it would still, on the broad grounds of Imperial policy, be worth effecting. Nobody will dispute that the mind of the country, especially a

country like Canada, where all can read, and most do read, is moulded by the literature it feeds on. In Canada the mental food is almost wholly of American origin.

Depth to Plant a Tree.

As to the depth to plant a tree, it seems to be the general idea that the future prosperity of the tree is proportionate to the depth and firmness with which it is placed in the ground, and the percentage that plant too shallow is almost too insignificant to be worth considering, for the sinning is all in the opposite direction.

Look for the mark made by the earth on the trunk of the tree when it stood in the nursery, and going by that, although it may seem shallow to you, you will make no mistake. The roots want warmth, light and moisture, such as they receive when placed properly, but when hermetically sealed two or three feet in the ground, it is impossible to develop any vigorous root action while contending against the terribly handicapping conditions. Give your tree plenty of feeding ground; plenty of good, fibrous earth, and if the place of planting is not naturally suitable, dig it out deep and put in what is needed.—[Suburban Life.]

New Agricultural Building at Cornell.

On May 1st the agricultural students at Cornell University, Ithaca, N.Y., to the number of about 200, drew the plow, with Dean Badley at the handle, breaking ground for the new buildings. The hall of agriculture will be 484 feet long, will cover 42,366 square feet, and have pretty near three acres of floor space. The auditorium will have seating capacity of over 500. The judging pavilion, a separate though connected structure, will cost \$12,900, making a grand total of \$197,900 for the entire group.

Horse Show for Winnipeg.

Arrangements have been completed for the holding of a two-days' horse show in Winnipeg, on June 14th and 15th. Classes will include carriage, roadster, riding, jumping, breeding, and heavy draft horses; polo and other ponies. There will also be entertainment features, in the nature of a gymkhana. Reduced rates on the railways have been secured, and everything points to a most successful exhibition.

New Machines.

A North Dakota man claims to have invented a machine that can be moved down a row of shocks, threshing the grain as it goes. No hand pitching is required to place the sheaves on the cylinder table, as this is done by an automatic attachment. Another North Dakota man has about perfected a machine to pitch sheaves into a basket rack, thus saving the work of about nine men on a threshing outfit.

A Successful Horse Show at Montreal.

The Montreal Horse Show was held last week, May 10th to 13th. Attendance was large, and the reputation of the show as a society event of the first rank was sustained. The competition brought out many of the same horses as were shown at Toronto, together with a number of new entries, to alter the complexion of things in some classes.

Sir Fred. Treves re Alcohol.

Sir Frederick Treves, surgeon to King Edward VII., flatly affirms that alcohol is a poison and a stimulant, not a food, and adds that its use in hospitals is steadily declining.

Prof. Wm. Lockhead, B.A., Professor of Biology, O. A. C., Guelph, Ont., has been appointed to a similar position at the new agricultural college at Ste. Annes, Island of Montreal. Prof. Lockhead expects to sever his connection with the Guelph College some time this summer.

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MARKETS.

Montreal.

Butter—Prices advanced last week instead of declining as many expected. A general shortage is indicated by orders coming in from New York and from Newfoundland, Vancouver, and intermediate points. Fancy creamery has sold for 19 1/2c., though it has since eased off to 18 1/2c. Dairies scarce; fine goods would likely fetch 17c. to 17 1/2c.

Eggs—Low prices have checked supplies and induced pickling, so that the retail trade is now short of stock. Quote straight-gathered 15c.; country prices, 13 1/2c. to 14c., f. o. b.

Cheese—Market has not declined at the rate exporters had hoped. Sales, locally, of 9 1/2c. for Quebec, and 9 1/4c. to 10 1/4c. for Ontarios. English market has been cabled 6d. lower, and this may affect the Montreal market.

Potatoes—Several carloads shipped to Ottawa and Toronto sold at 55c. per bag, f. o. b., Montreal. No prospect for high prices this season.

Grain—No market, locally, for wheat or any other grain, except oats, which are very dull. Stocks light, however, throughout the country, and prices firm, No. 3 being quoted in car lots at 44 1/2c. per bushel, store; No. 2, 45 1/2c.

Beans—Choice primes, \$1.70 to \$1.75 per bushel, and \$1.50 to \$1.60 in car lots.

Feed—Active; demand excellent; prices firm. Manitoba bran, bagged, \$19 per ton; shorts, \$21 per ton.

LIVE STOCK.

The London market was cabled last week at a light decline, the quotation being 13c. for Americans; Liverpool about steady at 12 1/2c. for Canadians, and 13c. for Americans. There has recently been a slight demand for ocean freight from Montreal, but no great activity in shipping is indicated. Liverpool freight has been let at 40s. per head; Portland to Liverpool being quoted at 30s. Considerable space is being offered for London, and, as a result, the market for freights has been weak, a decline of 5s. per head having taken place, at 30s. This figure has also been accepted for Manchester freight, it is said. Local market for live stock quite firm last week. Cattle scored a decided advance, having brought as high as 6 1/2c. per pound for a few animals, which is almost as much as was realized for the most of the choice Easter stock. Then general price for choice cattle, this week, was 5 1/2c. to 6c., fine bringing from 5c. or 5 1/2c. to 5 1/4c. Good butchers' animals brought 4 1/2c. to 5c., and a few may have sold at less. Mediums ranged from 3 1/2c. to 4c., and common at 2 1/2c. to 3 1/2c. Sheep were quoted at 3 1/2c. to 4 1/2c., and spring lambs at \$3 to \$6 each; calves being \$2 to \$6 each. Hogs were rather firmer, owing to an active demand from packers and firm advices from England. Sales of select stock were made at 7 1/2c. to 7 1/4c., heavy and mixed being 7c. to 7 1/2c. A dispatch dated Calgary, May 9th, stated that the first train of cattle shipped east this season left that night. There were 17 cars in the train, and the stock all fed stuff, and was bound for Montreal. This was said to have been two months earlier than usual.

Dressed Hogs—Firmer, in sympathy with live, and prices advanced about 1/4c.; sales of fresh-killed abattoir stock, selling at 9 1/2c. to 10c. per lb. Demand was very fair for everything offering. Advices from the other side report a very firm market for bacon.

Horses—The market for horses has shown very little change since a week ago, demand being rather lighter, if anything. The scarcity of good animals still continues, and the market is firm all round. Prices hold about steady at \$150 to \$200 each for general-purpose animals. Coal-cart horses, good chunks, weighing 1,350 to 1,450 lbs., sell at \$175 to \$240; heavy draft animals, 1,500 to 1,600 lbs., \$250 to \$275 each; lighter ones, \$200 to \$250; express horses, 1,100 to 1,300 lbs., \$150 to \$200 each; cheap animals \$75 to \$125 each, and broken-down culls, \$50 to \$75 each.

Seeds—Demand is very active for hayseed, and prices are firm, but unchanged. The range is from \$11 to \$16 per hundred pounds for alsike, \$13.50 to \$17 for red clover, and \$4 to \$6.50 for timothy. Seed corn, feeding, sells well at 80c. to \$1.35 per bushel for one-bag to dozen-bag lots.



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

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GET A HOME In the Great Canadian West.

THE CANADIAN-BRITISH LAND CO., LTD.

Established by letters patent by Ontario Government, and Licensed by the Government of the Northwest Territories.

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Head Office: ST. THOMAS, ONT. Head Office in the Territories at Regina. JOHN CAMPBELL, ESQ., President. GEORGE K. CROCKER, ESQ., Secretary, St. Thomas, Ont.

Cheese Board Prices.

At the Provincial Cheese Boards, the latter part of last week, sales ranged from 9 1/2c. at Kemptville and South Finch, down to 9 1/4c. at Ottawa, Napanee and Iroquois, and 9 1/8c. at Tweed.

Toronto.

LIVE STOCK.

Export Cattle—Choice are quoted at \$5.80 to \$6; good to medium, \$5.50 to \$5.80; others, \$5.25 to \$5.50, and bulls at \$4.25 to \$4.75.

Butchers' Cattle—Prices are quoted about steady. Good to choice are quoted at \$5.40 to \$5.75; fair to good, \$4.80 to \$5.20; mixed lots, medium, \$4 to \$4.75, and common, \$3 to \$3.50. Cows sold at \$2.50 to \$4.50, and bulls at \$2 to \$3.50.

Stockers and Feeders—Feeders, \$4 to \$5.60; bulls, \$3.40 to \$3.80; stockers, \$2.50 to \$4.25, and stock bulls, \$1.75 to \$2.50.

Milk Cows—The market is steady, and the range of prices at which cows are selling is unchanged at \$30 to \$70 each.

Calves—The quality of the calves offering is showing some improvement. Quotations have a firmer tone at 3 1/2c. to 5 1/2c. per lb., and \$2 to \$10 each.

Sheep and Lambs—Export sheep, \$3.50 to \$5 per cwt.; mixed sheep, \$4 to \$4.50; grain-fed yearlings, \$6.50 to \$7; barnyard lambs higher at \$4 to \$5, and springs firm at \$3 to \$6.50 each.

Hogs—Are quoted unchanged at \$7 per cwt. for selects, and \$6.75 for lights and fats.

BREADSTUFFS.

Wheat—Ontario, easier, with sales of No. 2 red and white at 96c. to 97c.; goose, nominal, 85c. to 86c. Manitoba—Winnipeg prices are easy, but quotations at lake ports are unchanged; No. 1 northern, 96c.; No. 2 northern, 92c., and No. 3 northern, 87c.; 6c. more grinding in transit.

Flour—Ontario, 90 per cent. patents, \$4.35 to \$4.45, buyers' sacks, east and west, 15c. to 20c. higher for choice. Manitoba, \$5.40 to \$5.50 for first patents, \$5.10 to \$5.20 for second patents, and \$5 to \$5.10 for bakers'.

Millfeed—Easier, with offerings more plentiful at \$15.50 to \$16 for bran, and \$17.50 to \$18 for shorts. Manitoba, \$18 for bran, and \$20 for shorts at Toronto and equal points.

Barley—No demand; 45c. for No. 2, 43c. for No. 3 extra, and 41c. for No. 1 malting outside, Toronto freights.

Corn—Canadian nominal at 47c. for yellow, and 46c. for mixed, f. o. b. Chatham freights. American kiln-dried, No. 3 yellow, firm at 58 1/2c. to 59c.; ordinary No. 3 yellow nominal at 54 1/2c., and mixed at 56c., on track, Toronto.

Oats—Steady; No. 2 white, east, 41 1/2c.; 40c., west.

Peas—88c. to 69c. for No. 2, west and east, and 70c. for milling.

Buckwheat—50c. to 60c., east or west.

COUNTRY PRODUCE.

Butter—Receipts continue heavy, and the market is easy in tone, and quoted about 1c. lower all round.

Creamery prints ... 19c. to 20c. do, solids ... 18c. to 19c. Dairy pound rolls, good to choice ... 17c. to 18c. do, large rolls ... 15c. to 16c. do, medium ... 14c. to 15c.

Cheese—Is fairly steady. Quotations are unchanged at 11 1/2c. for large, and 12c. for twins. New is quoted easy in tone at 10 1/2c. to 10 1/4c.

Eggs—The market is firm in tone at 14 1/2c. to 15c. per dozen. A few lots are still selling at 14c.

Potatoes—Are quoted unchanged. Ontario, 60c., on track, and 65c. to 75c., out of store; eastern, 60c. to 65c., on track, and 70c. to 75c., out of store.

Baled Hay—The market is steady to firm at \$8.50 per ton for No. 1 timothy, and \$7 for mixed clover, on track, here.

Beans—Are quoted unchanged. Hand-picked, \$1.75 to \$1.80; prime, \$1.65 to \$1.70, and under-grades, \$1.25 to \$1.50.

FARMERS' MARKET.

Oats—About steady, at 46c. per bushel. Dressed Hogs—\$9.50 per cwt. for choice light weights, and \$9 for heavies.

Hay—Steady at \$10 to \$11 per ton for No. 1 timothy, and \$8 to \$9 for mixed or clover.

Straw—\$10 per ton.

Wheat, white ... \$ 1 02 to \$ 1 03 do, red ... 1 00 to \$ 1 02 do, goose ... 78 do, spring ... 95 Peas ... 70 Buckwheat ... 54 Barley ... 49 Butter ... 22 to 25 Eggs ... 14 to 16

Old chickens, dressed, per lb. ... 10 do, live ... 10 Spring chickens ... 30 do, dressed ... 30 Fall chickens ... 12 to 13 Turkeys, live ... 14 do, dressed ... 14 to 15 Potatoes, per bag ... 70 to 85 Carrots, per bag ... 60 Onions, bush ... 20 Rhubarb, dozen ... 25 Beets, peck ... 20 Apples, Spies ... 2 00 to 3 00 do, others ... 1 25 to 2 00 Parsnips, bag ... 85 Cabbages, dozen ... 50 to 75 Beef, hindquarters ... 9 to 10 do, forequarters ... 6 1/2 to 7 1/2 Mutton ... 8 to 10 Lambs, per lb. ... 14 to 15 Spring lambs, each ... 6 00 to 8 00 Calves, per lb. ... 7 1/2 to 9 1/2

Detroit Bean Market.

Beans—May, \$1.63; June, \$1.66; July, \$1.70; October, \$1.55 bid.

Toronto Horse Market.

Toronto—Seasonable dullness was the feature of the horse trade last week, and the urgent demand which had characterized the market for some time past ceased, leaving the situation draggy and weak, with a pronounced lower trend to values. The past season has been a remarkable one in many respects, and the demand has been unusually broad, and now that the market has got back to normal, the contrast with the conditions prevailing for some time past is rather a striking one. The reaction now is more noticeable in the enquiry for heavy classes, while light carriage horses, drivers and saddle horses are still in brisk demand, though here, too, there is a tendency to shade prices, except for the choicest classes. Second-hand and the commoner classes reflect the present depression most, both as to activity and price. Two factors which have, perhaps, contributed greatly to the slower tendency here this week have been the Horse Show in Montreal, which, for the moment, has diverted attention from this market, and the strike at Chicago. Attendance at the sale-rings during the week has been rather light, and the bidding has been far less active, so that the auctioneers were generally compelled to accept reductions, as compared with the price paid a week ago. There have been no large sales of special importance.

The present range of prices in this market, according to Burns & Sheppard, is as follows:

Table listing horse prices: Single roadsters, 15 to 16 hands ... \$135 to \$165; Single cobs and carriage horses, 15 to 16.1 hands ... 150 to 175; Matched pairs and carriage horses, 15 to 16.1 hands ... 300 to 450; Delivery horses, 1,100 to 1,200 lbs. ... 160 to 175; General-purpose and express horses, 1,200 to 1,350 lbs. ... 125 to 160; Draft horses, 1,350 to 1,750 lbs. ... 165 to 200; Serviceable second-hand workers ... 90 to 115; Serviceable second-hand drivers ... 75 to 90; The Canadian Horse Exchange, Jarvis Street, report the following prices: Drivers, 15 to 16 hands ... \$125 to \$200; Cobs and carriage horses, 15 to 16.1 hands ... 180 to 250; Matched pairs, carriage horses, 15 to 16.1 hands ... 350 to 700; Delivery horses, 1,100 to 1,200 lbs. ... 125 to 200; General-purpose and express horses, 1,200 to 1,350 lbs. ... 125 to 200; Draft horses, 1,350 to 1,750 lbs. ... 140 to 225; Second-hand workers ... 60 to 110; Second-hand drivers ... 60 to 110.

Buffalo.

Hogs—Fairly active and steady. Heavy and mixed, \$5.70 to \$5.75; Yorkers and pigs, \$5.75 to \$5.80; rough, \$4.80 to \$5; stags, \$3 to \$3.75; dairies, \$5.50 to \$5.75. Sheep and lambs—Active; lambs, \$4.50 to \$6.90; yearling, \$5.50 to \$5.75; wethers, \$5.25 to \$5.40; ewes, \$4.25 to \$4.50; sheep, mixed, \$2.50 to \$4.75.

Chicago.

Cattle—Good to prime steers, \$5.60 to \$6.75; poor to medium, \$4.50 to \$5.50; stockers and feeders, \$2.75 to \$5.25. Hogs—Mixed and butchers', \$5.35 to \$5.60; good to choice, heavy, \$5.50 to \$5.60; rough, heavy, \$5.20 to \$5.45; light, \$5.30 to \$5.60; bulk of sales, \$5.50 to \$5.60. Sheep—Good to choice wethers, \$4.75 to \$5.25; fair to choice, mixed, \$3 to \$4.40; western sheep, \$4 to \$5.15; native lambs, \$4 to \$6.50; Western lambs, \$5 to \$7.40.

British Cattle Markets.

Cattle are quoted at 12c. to 13c. per lb.; refrigerator beef, 9 1/2c. to 9 1/4c. per lb.; sheep, 13 1/2c. to 15c. per lb.

Mrs. Cummins—"So you love your grandmamma, do you, Gracie? And why do you love her?" Gracie—"Because she used to punish mamma when mamma was a little girl. I hc'ed she used to spank mamma as hard as mamma spanks me."



Life, Literature and Education.

"The Sage of the Grange."

One of the most interesting personalities in the City of Toronto is that of the "Sage of the Grange," the wonderful octogenarian who, at an age when most men are contented to sit on the doorstep in the sun and read the morning paper as their severest mental exercise, still retains his hold on life at all but its fullest, his interest in public events and public weal unflagged, and his opinions looked to, if not as authoritative, at least as those of a man well fitted to speak—Goldwin Smith, scholar, historian, critic, educationist, lecturer. It is true that at a meeting of the Canadian Club of Ottawa last winter the Sage of the Grange intimated that his voice would no more be heard from the public platform; but his lectures have all been printed, and from his stately old residence, "The Grange," he still speaks to the public through his pen.

Goldwin Smith was born August 23rd, 1823, at Reading, Eng., where his father was a practising physician. When he was ready for school he entered the famous old halls at Eton, graduating thence into Oxford University, where his career was remarkably successful, scholarships in Latin and Greek falling, as if a matter of course, into his hands. During this period he also won the Chancellors' prizes for Latin verse and Latin and English essays. He was subsequently called to the bar, but never practised law, choosing rather to identify himself with a more purely educational career. In 1858 he was appointed to the Regius Professorship of Modern History at Oxford, and held that chair until 1866. During this period, it will be remembered, occurred the great tragedy of America, the terrible war between the Northern and Southern States. In this war the learned Professor became intensely interested, and it is, perhaps, to the interest at that time engendered that is due his presence in Canada to-day. Throughout the struggle he was an active champion of the North, and wrote many pamphlets in support of the Northern position. In 1864 he decided to visit the United States, and, his fame having gone before him, he was everywhere warmly received, the degree of LL.D. being conferred upon him by Brown University. On his return to England he published two volumes, "England and America," and "The Civil War in America." Later the degrees of D. C. L. and LL.D. were conferred upon him by Oxford and Princeton.

In 1868 he again came to the United States, and was appointed at Cornell University as Lecturer on English Constitutional History. Three years later he moved to Toronto, where positions of trust were already awaiting him. He held many of these with credit, and was made a Senator of Toronto University, but

from this time henceforth he devoted himself more and more to literary work, not especially as a contribution to literature, but as a means of raising and directing public opinion in those channels which to his mind seemed right and best. In attaining this object he has been in some directions measurably successful, for, although many of his opinions have not recommended themselves to the acceptance of the Canadian people, he has, perhaps, as an exponent of high character and an enemy of political corruption and double dealing, done more than any other living man to raise the character of the Canadian press. His profound learning, moreover, his mastery of style and wonderful command of language have served as a model to scores of Canadian writers, who, in aiming at his standard have been by no means losers.

A great deal of his writing has been done for current publications. For some time he contributed articles on current events to the Canadian Monthly, following these up later by contributions on political and literary subjects to the "Nation"



Goldwin Smith, D. C. L., LL. D.

magazine. His periodicals, "The Week," in which a wide range of literary and general subjects were discussed, and at another time, "The Bystander," are both remembered with pleasure by thoughtful Canadians.

Among his works which have been issued in book form are the following: "The Empire," "Irish History and Irish Character," "Lectures on Modern History," "Rational Religion," "Three English Statesmen—Cromwell, Pitt and Pym"; "Essays on Reform," "The Irish Question," "Relations Between America and England," "Short History of England to the Reformation," "Lectures and Essays," "A Trip to England," "Political History of the United States," "Oxford and Her Colleges," "Bay Leaves," "Translations From the Latin Poets," "Specimens of

Greek Tragedy," "Essays on Questions of the Day," "Jane Austen," "Shakespeare the Man," "Guesses at the Riddle of Existence," and a "Political History of the United Kingdom."

Of this list it may only be said to the would-be student that the writer's treatment of his subjects has been uniformly masterly. With some of his opinions good Canadians are not likely to agree. He has for long enough laid himself open to patriotic arrows by reason of his opinions; first, that the destiny of Canada was independence, and later that its political life is destined to be locked up with that of the United States. No one, however, is bound to accept all of any man's ideas, and Goldwin Smith at least deserves credit for the fearlessness with which he has expressed his convictions. His works on history may be taken as authorities. In those in which he has treated of coming conditions, e. g., "The Canadian Question," he has, at times, made mistakes, for not even he could foresee the wonderful strides which Canada has made during the last few years, or the change of aspect which such strides would

bring about. He does not seem to have appreciated the strength of the ties of national sentiment as against those of geographical relation. His purely literary works are wholly charming. To many his "Jane Austen" must prove more interesting than the works of Jane Austen herself, while his "Shakespeare" is a most valuable aid to every student of the Bard of Avon. When it comes to religious subjects his writings voice a great many questions which he does not attempt to answer. But something beyond the veil troubles the old man, whose vain questionings are pathetic. He is of that type of mind in which what we call "Faith" does not seem to dominate. Criticism, to his mind, has spared only the character and teachings of Jesus. If that be true, what then? All else follows for which Christianity stands, and Christ stands the world's Divine Redeemer. Upon

the whole Goldwin Smith remains as one of the greatest living thinkers and writers, while as a man his character is of the highest. Of its loveliness those who have been recipients of his innumerable and unblazoned charities may speak, along with those who share the pleasure of his friendship.

Solitude.

(From Burroughs' "Indoor Studies.")

Emerson says, "Now and then a man exquisitely made can live alone, and must; but coop up most men and you undo them." Solitude tries a man in a way society does not; it throws him upon his own resources, and if these resources be meagre, if the ground he occupies in and of him-

self be poor and narrow, he will have a sorry time of it. Hence, we readily attribute some extra virtue to those persons who voluntarily embrace solitude, who live alone in the country or in the woods, or in the mountains, and find life sweet. We know they cannot live without converse, without society of some sort, and we credit them with the power of invoking it from themselves, or else of finding more companionship with dumb things than ordinary mortals. In any case, they give evidence of resources which all do not possess. If not "exquisitely made," hermits generally have a fine streak in them, which preserves them in solitude. If a man wants to get away from himself or from a guilty conscience, he does not retreat into the country, he flees to the town. If he is empty the town will fill him; if he is idle the town will amuse him; if he is vain here is a field for his vanity; if he is ambitious here are dupes waiting to be played upon; but if he is an honest man, here he will have a struggle to preserve his integrity. The rapid growth of cities in our time has its dark side. Every man who has a demon to flee from, a vice to indulge, an itching for notoriety to allay, money to squander, or a dream of sudden wealth to cherish, flees to the city, and, as most persons have one or the other of these things, the city outstrips the country. It is thought that the more a man is civilized, the more his tastes are refined, the more he will crave city life, and the more benefit he will get from it. But this may be questioned. It is not, as a rule, a refined taste that takes men to cities, but a craving for a vain superficial elegance, the pride of dress, of equipage, of fashion, of fast living, and the shams and follies of the world. The more simple and refined taste loves the seriousness and sobriety of the country.

People find country life dull because they are empty and frivolous; having only themselves on their hands, they can extract no entertainment from such a subject. How can a man profitably commune with himself, if the self is small and frivolous and unworthy? He will not go to his own garden for fruit if there be only thorns there.

The finest spirits are not gregarious; they do not love a crowd. . . . Solitude is not for the young; the young have no thoughts or experience, but only unsatisfied desires; it is for the middle-aged and the old, for a man when he has ripened and wants time to mellow his thoughts. A man who retires into solitude must have a capital of thought and experience to live upon, or his soul will perish of want. This capital must be reinvested in things about him, or it will not suffice. Either as a farmer or as a student and lover of nature, or as both, can he live, as it were, on the interest of his stored-up wisdom.

The Mighty Power of Character.

And they said, We saw certainly that the LORD was with thee: and we said, Let there be now an oath betwixt us, even betwixt us and thee. . . thou art now the blessed of the LORD.—Gen. xxvi.: 28, 29.

"Be noble! and the nobleness that lies In other men, sleeping, but never dead— Will rise in majesty to meet thine own!"

The passage from Genesis, given above, shows that the mighty power of character made itself felt in the first ages of the world, even as it does to-day. Abimelech was a heathen and a king, yet he made advances to Isaac, pleading that the shepherd would make a covenant with him. Why was he so anxious to join hands with a man who was no mighty warrior to help him in fighting his enemies, but a gentle man who was willing to give up even his just rights in order to avoid strife? Abimelech had ordered Isaac to leave his country, and, without argument or fuss, Isaac quietly "departed thence." Then the patriarch's servants dug well after well, and Abimelech's servants claimed them. Instead of quarrelling about the matter, Isaac simply moved on and started to dig again. Then, quite unexpectedly, Abimelech changed his tactics and sought an alliance with this meek shepherd-patriarch for this very good reason: "We saw certainly that the LORD was with thee. . . thou art now the blessed of the LORD."

Have things changed in these days? Men who make no attempt to live like Christ themselves may ridicule and torment a man who does make the doing of God's will the business of his life, but all the time they see certainly that the LORD is with him, and, sooner or later, they will bow in reverent respect before the quiet, persistent, mighty power of a holy life. The prophecy that the meek shall inherit the earth is continually being fulfilled.

"The tidal wave of deeper souls Into our inmost being rolls, And lifts us unawares Out of all meaner cares."

A man's unconscious influence affects a great many more people than he has any idea of. It goes on continually, and, I can't help thinking, a good character has far more influence than a bad one, partly because the character itself is stronger, partly because the people influenced really want to copy it, but especially because good is stronger than evil, light must drive out darkness, and GOD is infinitely mightier than Satan. It is character that really tells in this world, not wealth or genius, and we are responsible, awfully responsible, for our unconscious influence; because it is the inevitable consequence of the character we have been building for years—building by our everyday words and actions, and, infinitely more, by our secret ambitions and aspirations. Spiritual infection is at least as subtle as the invisible germs which a person recovering from small-pox or measles scatters in every direction. It is folly to fancy that evil thoughts can harm no one but the person who ventures to encourage them. We are members one of another, and, therefore, we can't help exercising what MacMillan calls "the action of presence," but it lies with ourselves to determine whether this action of presence shall be helpful or hurtful in our own case. It is quite possible to actively "do good" without being good, but it is hardly possible to really "be good" without, in some way or other, helping other people to draw nearer to God. The real character of a man cannot be hidden. Abimelech "saw certainly" that the LORD was with Isaac, and, although he at first opposed him, soon showed his deep respect for his character. Saul was afraid of David "because the LORD was with him." Potiphar felt quite safe in leaving all that he had in the hands of a young slave, for he also "saw that the LORD was with him." It is always so. The world never fails to respect inwardly, if not outwardly—those who have the "Father's Name written in their foreheads," those who are visibly sealed with "the seal of the Living GOD." We can hardly fail to desire earnestly this outward, visible sign of God's favor. How then may



it be obtained? Ezekiel says that a man "clothed with linen" goes through the city to "set a mark upon the foreheads of the men that sigh and that cry for all the abominations that be done in the midst thereof." We are left in no doubt about the identity of this Man who alone of all the sons of men is clothed in the pure linen of perfect righteousness. One of our Lord's promises to him that overcometh is, "I will write upon him the Name of My GOD," and St. Paul explains that He seals men by the Holy Spirit. When the Holy Ghost, the Comforter, makes the soul and body of a man His temple, dwelling in him continually, the Divine Light shines out visibly, for the body is like a transparent tent in which the soul dwells. It was said of Kelsie in his old age that "his face was like that of an illuminated clock: the color and gilding had long faded away from the hands and figures, but the ravages of time were more than compensated for by the light which shone from within." Did you ever realize the wonderful truth that our Lord has faithfully promised to give the Holy Spirit to those who "ask"? We must care enough for His Divine Presence to "ask" eagerly, persistently, unweariedly—winning the blessing as Jacob did—if we want to influence the world for good. People can see certainly whether the LORD is with us or not. We have no business to "drift" through life, for God calls us to live strenuously all the time—and that doesn't mean that we are to be on the rush from morning to night, for our strength must be "in quietness and confidence." Our Lord has declared that "the kingdom of heaven suffereth violence" (or, as it is in the margin, "is gotten by force"), and "the violent take it by force." Those who ask and keep on asking—like the Syrophenician woman who would take no denial—will certainly receive. Then, as character grows stronger and stronger, it cannot fail to exercise a mighty power for good.

"No life Can be pure in its purpose and strong in its strife, And all life not be purer and stronger thereby!"

There is a legend of a man who once walked quietly on his way, shedding out holiness as unconsciously as a flower gives forth perfume or a star sends out its light. The angels were eager to give him some miraculous power so that everybody might know what a saint he really was. They asked him if he would

like to be able to heal the sick, but he answered, "No, for how can I tell if it is good for them to recover? God will heal them, if He sees best."

Then he was asked whether he would like to have miraculous power to convert sinners, but he replied, "The Holy Spirit alone converts souls. God forbid that any should mistakenly ascribe such power to me."

Then he was asked if he would like to shine forth as a model of saintliness, but he shrank back, afraid lest he might be lifted up with spiritual pride.

So the angels asked God to bless his shadow, which, as he continually faced the light, always fell behind him and was invisible to himself. As the saint walked quietly on, his shadow became a benediction to all around. All unknown to himself he cheered sad hearts, helped the discouraged, and scattered hope and inspiration wherever his shadow fell. Of course this is only a parable of the unconscious, yet mighty power of character. Have we not all known men and women like this saint, who was called "The Holy Shadow"? Such a glorious gift is within the reach of the poorest and most ignorant, but we can never obtain it by half measures—by trying to combine the service of God with that of any other master. He will not accept a divided throne: the whole man—soul and body—must be flung wide for Him to enter in, and the Will must be put unreservedly into His hands. Why should we fear to give Him full control, when He loves us with an infinite tenderness? Let us lift up the gates so that the King of Glory may enter: let us give Him joyful welcome and yield Him loyal and loving service all our life through.

I intended to end there, but—like St. Paul—I find it hard to close a letter at the first "finally." Having just found the following commentary on this subject in to-day's paper, I cannot refrain from copying it, so that you may see how far-reaching is the influence of a young Welsh collier, Evan Roberts, who has lately been giving wonderful proof of the mighty power of character—or, rather, of the Holy Spirit, when He touches men through a man. In "The Topics of the Day" is this passage, which, of course, refers to the great Welsh revival which is astonishing Christendom to-day.

"It is a fact not open to question that the physical and mental condition of whole communities has been transformed by this young man's preaching. Where once the roughest sports, the roughest language, the most degraded social standards reigned, there is reverent talk,

high aspirations and devout behaviour. . . thousands upon thousands of Welsh folk are living better, cleaner lives." What do you think of that as a living, present testimony to the power of character, unaided by wealth, learning or worldly influence?

I turned to another page of the newspaper and read that an annual attempt is made to get the name of Lord Byron inscribed in Westminster Abbey. Why should that brilliant genius be excluded from the roll of England's greatest names? Surely it can only be because his marvellous brilliancy of poetic genius was not backed by nobility of spirit. God does not give genius to everyone, but He does offer the infinitely greater gift of Holiness to all. Let us earnestly pray and strive after this glorious and mighty gift. If the beauty of the Lord our God be upon us—visible to all—then it will be safe to say to Him, "Establish Thou the work of our hands upon us."

"The work of our hands—establish Thou it. How often with thoughtless lips we pray! But He who sits in the heavens shall say, 'Is the work of your hands so fair and fit That you dare thus pray?' Softly we answer, 'Lord, make it fit,— The work of our hands—that so we may Lift up our eyes and dare to pray, 'The work of our hands—establish Thou it.'"

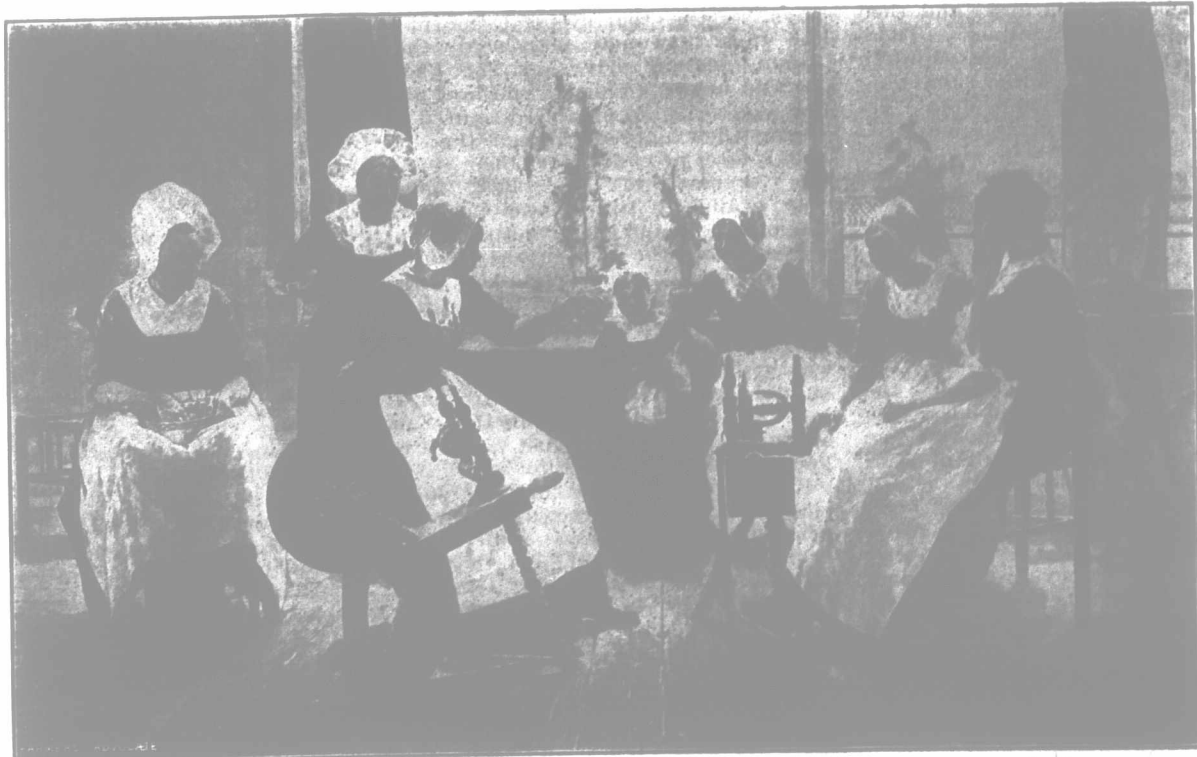
HOPE.

Taught by Example.

There is a story told of a chaplain in the army who, as he was going over the field after a battle, saw a wounded soldier lying on the ground. He said to him, "Would you like me to read you something from the Bible?" "I am so thirsty," said the man, "I would rather have a drink of water." The water was quickly brought. After he had drunk it, he said: "Could you lift my head a little higher?" The chaplain took off his overcoat, rolled it into a pillow, and tenderly put it beneath the man's head. "I am so cold," moaned the man, "if I only had something over me." The chaplain took off his other coat and spread it over the man. As he did so the suffering man looked up and said: "For God's sake, if there is anything in that book which will make a man do for another what you have done for me, let me hear it."

No one is useless in the world who lightens the burden of it for anyone else.

A fault which humbles us is of more use than a good action which puffs us up with pride.



The Ghost Story.

Friends.

Are we friends? 'Course we be!—
My dear Spaniel and me—
Just pretend to slap me and see how he
will bite!
Put your camera there!
He can sit on this chair,
And I'll hold my arms round him, oh,
ever so tight.

No, I'm not "your small boy,"
I'm my dear mother's joy,
And I've growed up, so now you must
call me a man.
On my face soon will grow
Fur like daddy's, you know,—
You can feel the sharp prickles,—I'm
certain you can.

I'm not afraid now
Of a pig or a cow,
Or the great big, fierce gobbler that
gobbles so loud:
My friend Major and me
Are as brave as can be,
When we walk out together we both feel
so proud.

But a fat, fuzzy worm
That will wriggle and squirm
And is covered with hairs like a round,
woolly bear,—
Caterpillars and such—
I don't like them much,
But my friend only barks so then I don't
care.

COUSIN DOROTHY.

My Visit to the Country.

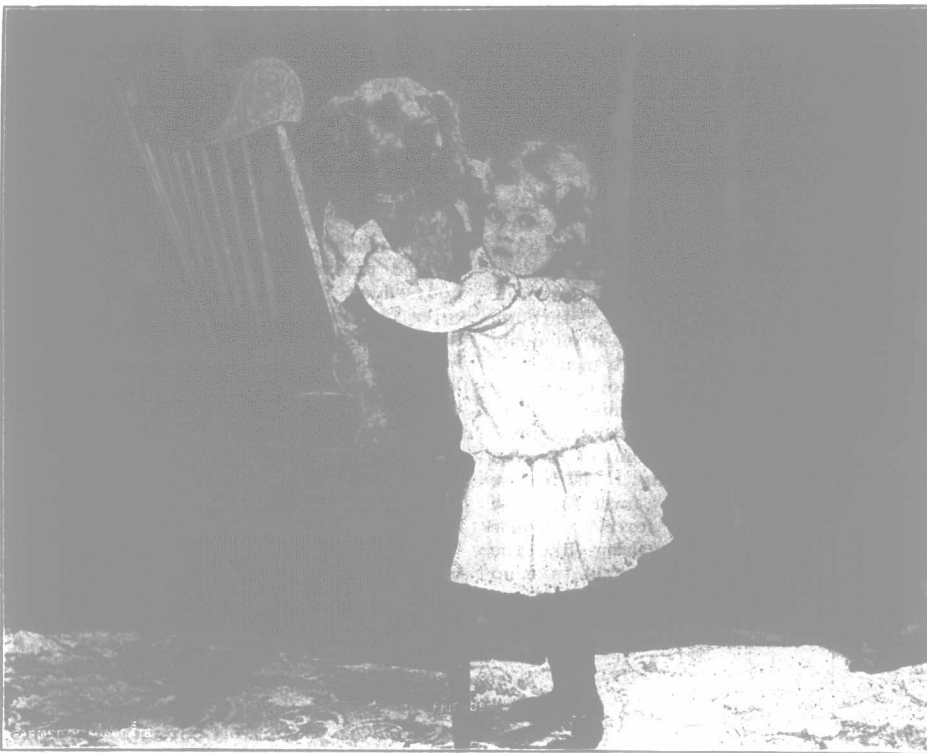
Mother made up her mind to go to
uncle's farm for a day, and she said I
could go with her. My! I was glad,
for I would get off going to school for
one thing, and as I hadn't seen auntie
and my cousins for a long time, I was
still more anxious to go.

We made up our minds to start the
next day, and as we went on the
steamer, it didn't take us long to get
there. "And, now, we are in the coun-
try once more," said mother. When I
looked around, I saw some men in a field
harvesting. Next to it there was an-
other large one with a herd of cattle in.
All were glad to see us, and welcomed us
warmly. They were just going to pick
blackberries, and because we came, auntie
said Ethel, my cousin, about my age,
could go. At first she did not care to,
unless I went with her, and when she
found I would, Georgia and Lavinia
came too. When we started, we thought
of bringing a great many home, but
when we came in sight of the piece of
chopping and saw a great number of
vines and the large berries on them, we



didn't feel much like bringing many
home, especially after we started to eat.
The first patch we came to was a pretty
big one on a brush heap, and, as I
wasn't used to country life, I fell among
the briars when I went to pick the
berries. After we had picked a great
many, but put very few in our pails, we
thought it must be near dinner time.
When we reached the house, the dinner
was on the table, smelling nice. I en-
joyed my dinner very much. I suppose
auntie didn't care much about sending us
again to pick berries. After dinner all
of us went to see our old friends, the
Sullivans, who lived about half a mile
from auntie's. We spent a very happy
hour or so there.

We got home about four o'clock. Then
my three cousins and I went with the
men for a load of grain, and enjoyed our-
selves very much this part of the day by
catching grasshoppers and holding them
on the sheaves. When we got the load
in the barn, it wasn't far off tea time.
After tea, we went to the barn, for I do,
and always did, like stock. I saw
quite a number of cows while I was
down there, and the little Jersey calf,
too, which I caught a glimpse of when
we went to pick berries. Ethel chose a nice
gentle cow and wanted me to try to
milk. All the cows were Jerseys, and,
of course, they were gentle. I had
learned to milk the time before when I
was there, and I got quite a little in my
pail before long. Ethel and I didn't
milk long before we were tired, and then
we played in the hay. After we were
tired of playing there, we started for the
house, but we didn't get far before we
met a hen which had got away with
thirteen little chickens. Ethel and I
caught the hen and every chick and took
them to the henhouse, where we fed them
and looked at them. After this, it



Friends.

The Second Mrs. Jim.

(Continued.)

II.

It seems that Jim "kicked" a little
at first over the proposal to allow
a family jaunt to take the place of
a wedding trip, but the common-
sense arguments of the bride-elect
triumphed over his objections. "You
and I can be married first, and then
we'll all go to the circus. There
ain't no reason why the children
should be left at home planning
mean things to do, and doin' 'em
while their pa is off getting married.
I believe in taking them along and
making them have so good a time
that they'll look back on the day
that their stepmother came as the
beginning of the best time they ever
had in all their lives." Meanwhile
the boys were bound to silence by
the promise of that rare treat—a
visit to the town—and the greater
treat still of being taken to the
circus. They were to be told the
great news when the hired man was
away for the day. "So that no one
should stuff their heads full of non-
sense about stepmothers . . . I'd
seen enough of stepmothers and boys
in my time to know that I wasn't
going to have them feel that way
towards me. If boys are handled
right from the start, they can't help
but come out right, and I made up
my mind that I'd do my best to
handle 'em right. I was sure Jim
wouldn't interfere, 'cause he said he
was going to kind o' leave the boys
to me. They'd had a little too
much 'pa' during the last year and

a half. An' I went into the whole
thing with my eyes open . . . The
future Mrs. Jim depended upon the
circus doing a lot. "I know," she
said, "I'd get to know a lot more
about them boys after that day was
over, to more than pay for 'em,"
then, an' knowin' is the biggest
part of raisin', as you'll find with
anything—turkeys, or chickens, or
boys." On the eventful morning
the tactful woman suggested that
Jimmy should drive, as she knew
he was achin' to do. She had pic-
nics and cookies galore, and delighted
in seeing their appreciation of the un-
usual fare provided for them. As
the shyness of the lad's gave way
gradually to the excitement of
the occasion and the rapturous an-
ticipation of the joys of the coming
circus, their stepmother-to-be. Not-
iced, though I didn't let them know
I did, how they'd turn round and
look at me. I didn't blame 'em. I
was going to study them; why
shouldn't they study me? If you've
got to live all the time in the same
house with folks, it's just as well to
know all you can 'bout 'em."

In a little anti-matrimonial spar-
ring upon a triviality which meant
something to the boys, and just a
trifling sacrifice to their father and
to the bride herself, her comment
is: "I was glad Jim didn't say
anything while we was in the buggy,
'cause it's just as well that the boys
shouldn't know how their pa has
to have things said to him once in
a while. It kind o' keeps their re-
spect for him, don't you think?"
The account of that world of

wonders—the travelling circus—and
the opportunity it afforded for the
harmonious development of the new
relationship, is well and humorously
told. "We all enjoyed the show.
It was the first big one I had ever
seen, an' Jim was kind o' getting
acquainted with his boys a little.
He seemed surprised to hear Jimmie
could tell about the animals in
the menagerie. Read 'em in a book
at school, an' remembered 'em,
too. . . . I see pretty near every-
thing, but it was kind o' different
lookin' at it from the standpoint of
a stepmother, with two boys to
raise." Then follows a distinctly
womanly touch—a peep within a
heart already stirred into a motherly
love for the children of her adop-
tion: "Frankie, when he see them
little dogs on the platform in front
of him, he says, 'Just look at 'em,
Jimmie,' but Jimmie is deaf to
hearing, being too keenly alive to
sight, so the appeal this time is,
'Just look at them dogs, ma.'"
Looking sheepish at first as the
significant word slips out, Mrs. Jim
quaintly says, "And maybe it was
wrong, but I always was looking
some other way, or somethin' so he
had to say everything over again,
an' call me 'ma' to catch my at-
tention. I kind o' liked to hear
the sound o' that."

The drive home was punctuated by
happy chatter, "until," Mrs. Jim
relates, "I noticed Frankie wasn't
sayin' so much, an' I sid my arm
around him where he sat up stiff an'
half asleep, bobbin' around with the
jolting of the buggy. Pretty soon

wasn't far off bed-time, and in the morn-
ing, mother and I were going to stay a
few days with a friend of ours. So we
said good-bye, and asked them to visit
us soon.

After several days, we reached home in
safety, and father told us that he never
knows when we are coming home after
we get away, and I think that may be
true. So ended our stay in the country.
EDITH MEDD (age 12 years).

Langley, B. C.

Twelve Little Boys.

There were twelve little boys I would
tell you about—
Just think what a dreadful noise—
They are all of an age, just three and a
half,
These twelve little blue-eyed boys.

There's a doctor, a preacher, a farmer
lad,
And one is a soldier bold,
Who rides about with his pistol and
sword,
Like the frog in the story old.

There's the acrobat boy, with his heels
in the air;
But I think, and so would you,
That the sweetest of all is the boy who
sings,
"Two little girls in blue."

The sweetest of all, did I say? There's
one
Who sits—dear little man—
Just "thinking of mamma," the red lips
say,
As only a baby can.

There is one little boy, I am sorry to
say,
Who will cry and pout and fret;
Who likens himself to a "bad, bad man,
Who loves no one," and yet

Somehow we think that he loves us all;
For the clouds soon pass away,
And a sweet smile dimples the tear-
stained face,
Like a sunbeam gone astray.

There is "Auntie's sweetheart" and
"Uncle's boy,"
And "Brother's little brother,"
And "Papa's man"—I think you scarce
Could find just such another.

But when the hour comes for the good-
night kiss
To these laddies so precious to me,
I find just one poor, tired little boy,
As sleepy as sleepy can be.

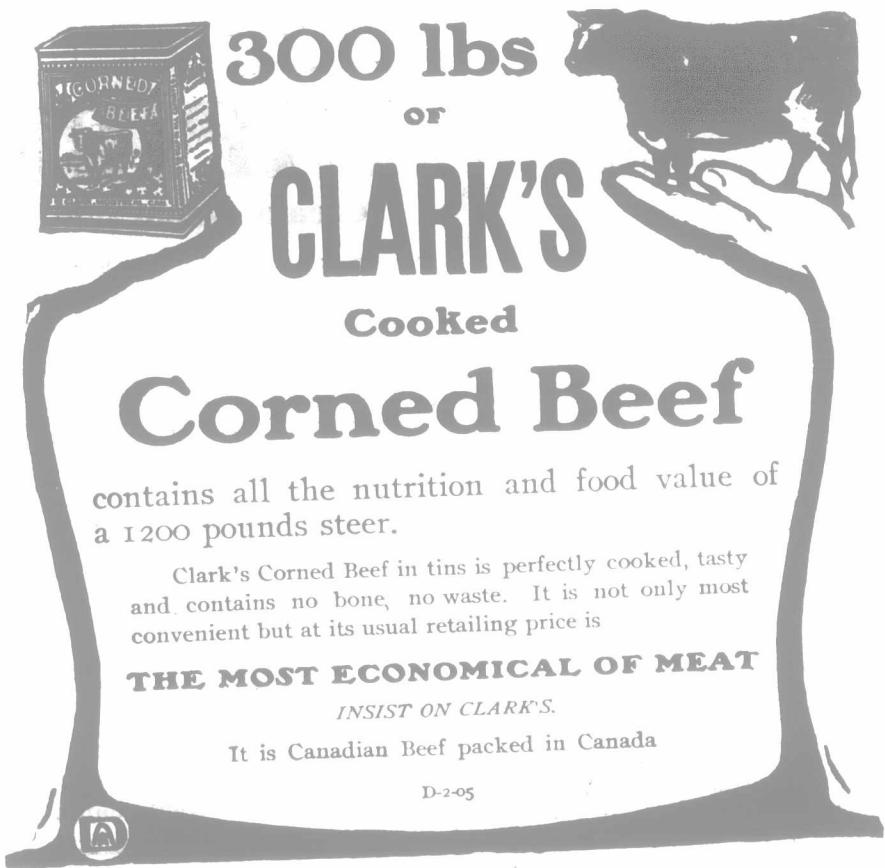
he snuggled down next to me an'
was sound asleep, an' I could almost
guess what his dreams was. The teams
ahead and behind us turned off, one
by one, an' soon we was left alone
on the road. I was half dozin'
myself, as I hugged Frankie up close
to me, an' Jim was noddin' on the
front seat." I think Mrs. Jim felt
already that half at least of her
battle was won, as each sleepy boy
stumbled up the stairs to bed, with
a "goo' night, pa; goo' night,
ma."

We will leave for another paper
the record of some of the wise but
heroic measures the stepmother
adopted in curing her boys, or rather
managing so that they should be-
lieve that they were curing them-
selves of ways undesirable and dis-
advantageous to their future career.
Meanwhile, we cannot wonder that
her story of their wedding trip
should end with, "I drooped into a
rocking-chair, for I was dead tired.
It's no small work for a woman of
my age to ride twenty-five miles,
get married, an' go to the circus,
all in one day." H. A. B.

(To be continued.)

During dense fog a steamboat slackened
speed. A traveller, anxious to go ahead,
came to the unperturbed manager of the
wheel, and asked why they stopped.
"Too much fog; can't see."

"But you can see the stars over-
head."
"Yes," replied the urbane pilot,
"but until the b'iler busts we ain't go-
ing that way."



300 lbs
or
CLARK'S
Cooked
Corned Beef

contains all the nutrition and food value of a 1200 pounds steer.

Clark's Corned Beef in tins is perfectly cooked, tasty and contains no bone, no waste. It is not only most convenient but at its usual retailing price is

THE MOST ECONOMICAL OF MEAT

INSIST ON CLARK'S.

It is Canadian Beef packed in Canada

D-2-05



Little Savings in Time and Work.

Dear Dame Durden,—I am one of the busy bees, who are always looking for ways to make work lighter. When there is only one woman in a house, and that house on a farm of two or three hundred acres, she needs to keep her brain active to arrange all the household details. I find one of the greatest helps in house-keeping is to keep everything in its place. On no account let your closets and pantry shelves get untidy. I find it a good way to arrange my pantry shelves every morning.

A good garden is one of the best helps you can have. It is so much easier to gather fruit for dinner, and use it with cream and sugar, than to make puddings and pies; besides fruit and vegetables are more wholesome. In cooking vegetables for dinner, I usually cook enough for two days, and I always think the warmed-over dish is the nicer.

Having a day for washing, ironing, sweeping, etc., is a good rule. By adhering to it, you have the satisfaction of knowing you are up with your work, and that is a great thing in house-keeping. Being social with your neighbor is also a help. You feel more like work after spending an afternoon with a neighbor's wife and daughters. You see new ways of doing things, see your friend's fancywork, read her magazines, and so on, and you return, feeling you have learned something, and will be more able to cope with some piece of work.

Above all, don't forget to have a pleasant book to read in the evening, instead of always knitting or darning. I am not sure whether I have said anything helpful or not. These suggestions have been helpful to myself. I hope someone else will find them equally so.

**Yours,
A WISH TO BE HELPFUL.**

Marmalade.

As marmalade oranges are now in season, perhaps someone would like a good recipe. I have used it for years, and think it the best I have tried.

Madeira marmalade: 12 bitter oranges, 6 sweet oranges, 6 lemons. After washing the fruit and removing any discolored spots, if there be any, take a sharp knife and slice in very thin, short pieces, removing the pips; weigh, and to each pound of fruit add 3 pints of cold water; set away until next day; then put on stove and boil two hours, or until the peel is tender; set away until next day, weigh again, and to each pound of pulp add 1½ pounds of granulated sugar; boil in about four quantities, until it jellies. Boiling in small quantities will hasten the process.

MOUNTAIN VIEW.

From a Little "Brick"

Dear Dame Durden,—As I picked up the ever useful and welcome "Farmer's Advocate and Home Magazine," I noticed Aunt Matilda's request for a recipe for bread, which appeared in the "Farmer's Advocate" some time ago, so I am sending one which I got from this paper, and which I had success with.

Quick Bread.—Peel and boil 12 medium-sized potatoes in sufficient water to have one quart when done; put 3 large tablespoonfuls flour, 1 tablespoon sugar, 1 tablespoon salt in a crock (about two-gallon size); mix well together. Into this pour the boiling water from the potatoes, stirring briskly. Then add 1 quart boiling water, and 1 quart cold water. When cool enough, add 2 Royal yeast cakes, which have been soaked in 1 cup tepid water. Stir well; cover tightly with plate (not tin); set crock in a warm place until the yeast is light. It will be ready to make bread next morning, and will keep for a week or longer in cold weather.

To make bread, allow 1½ cups of the above yeast and 1½ cups hot water (added very slowly) to each loaf required, as much ginger as can be lifted on the point of a teaspoon, and enough flour to make stiff batter. Beat well with spoon; cover up tightly, and set in a warm place; when light (in about 1

hour), add dessertspoon salt, and about the size of a walnut of lard (melted), to a loaf; flour to make stiff enough to handle without sticking to hands. After kneading the flour in well, about ten minutes, make into loaves; set to rise; when light, bake. Added points: in regard to the proper lightness, the dough should be twice the original bulk. Have all dishes and flour warm. If there is not enough water on the potatoes, add enough to make the quart. Strain yeast when making bread to remove possible lumps. This is a recipe from "One of the Maids," and it is very good. Now, I cannot resist the temptation of telling you what my idea of farm and town life is. I am only thirteen years old and have to keep house, and it is very easy, as I live in town; but still I prefer the farm with all its work. Oh, how nice it is to sit and listen to the birds singing sweetly in the trees. I am a true lover of nature, and my heart goes out to the beautiful trees and flowers, and it seems that I could lift my voice in praise to God for this beautiful land of trees. I spent last week on the farm, and I could hear more birds and see more in one day than in a whole week in town. Hoping Aunt Matilda will have success with the bread, I must close, and sign my name—

AN APRIL BIRD.

P. S.—I intended to say that I would like to see a society formed to keep boys and girls from killing birds.

Words of Appreciation.

Dear Dame Durden,—I have long thought of writing a letter to the Ingle Nook to say how I appreciate it, and the helpful letters it contains. It is the first page I turn to when the "Farmer's Advocate" comes. I find Helponabit's way of washing a great improvement to the way I had been accustomed to doing. I have also been greatly helped by the recipe for bread given by Mrs. C. W. B. In fact, every paper contains something helpful; but being a young house-keeper, I have not much to give in return. I might send a few tried recipes, if I may come again. Will close, by wishing you and the "Farmer's Advocate" success, as we would not be without it.

**Yours truly,
STARLIGHT.**

We shall be glad to receive your recipes, Starlight.

Some Recipes for Rhubarb Time.

Stewed Rhubarb.—Cut into pieces about three inches long; cover with cold water and let come slowly to boiling point, but not boil. Take off, and drain the water off carefully, not breaking the rhubarb. Add sugar to the liquid, and boil till syrupy, with a piece of ginger for flavoring. Pour the liquid over the rhubarb. Never boil rhubarb in tin; always in granite or agate ware vessels.

Rhubarb Souffle.—To every quart of cup-up rhubarb, add one pound of sugar. Stew in a very little water until tender, then put through a colander. For every pint of the pulp, take three eggs, beat yolks very light and add to the pulp; whip the whites stiff, add to the mixture. Put in a buttered dish, and bake in a quick oven. Serve with good sweet cream.

Rhubarb Pie Filling.—Mix one cup sugar and about enough chopped rhubarb for your pie. Add one egg and one large cracker, rolled into fine crumbs. Bake with two crusts.

A Request.

"Edith," Kent Co., Ont., writes: "I would like to ask Octavia if she would be so kind as to explain what she meant by her allusion to 'copy,' and to her earning so much monthly by advertisements. I am teaching school, but will be obliged to resign my position to go home to care for my parents. I would like to know of some way to add to my income while at home. Wishing the friends all would write and relate their experiences in caring for house plants, I remain a well-wisher of your good paper."

"EDITH."



USED BY ALL WISE HOUSEKEEPERS

and sold by all good grocers.

FIVE ROSES FLOUR

and
"BREAKFAST FOOD."

Ask your grocer for both.

LAKE OF THE WOODS MILLING CO. Limited.

A PLACE OF DEPOSIT

For the funds of individuals, corporations, institutions, firms, societies, clubs and associations of every kind; as well as for the moneys of executors, administrators and trustees.

INTEREST ALLOWED AT 3½ PER CENT.

PAID-UP CAPITAL SIX MILLION DOLLARS

CANADA PERMANENT

MORTGAGE CORPORATION

Toronto Street - - - Toronto

Flery, Itching, Burning, Blistering
ECZEMA



Why be a victim of this distressing skin trouble? Our **ECZEMA CURE**—a wonderful remedy—we've cured thousands during the past 13 years—will cure you. Don't suffer, but send stamps for particulars and books. Describe trouble fully.

Pimples, Blisters, Blackheads, Moth-patches, Freckles, Rashes, Goutre, Red Nose, Eruptions, etc., cured at home. Consultation free by mail. Get Booklet "F." Superfluous Hair removed forever by Electrolysis.

Graham Dermatological Institute,
Dept. F. 502 Church Street, Toronto.

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.

I WOULD LIKE EVERY WOMAN to write for our New Styles and Samples of \$4.50 to \$12 Suits in cloth, silk, linen and lustrous; also raincoats, skirts and waists. Manager **SOUTHCOTT SUIT CO.** Dept. 2

Send for samples of shirt-waist suits in lawns, linen, etc., from \$2.50 up.

ADVERTISE IN THE ADVOCATE.

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

The Revolutionizing of the Cracker

Mooney revolutionized the cracker. He made folk admit that they never knew how good crackers could be, by making such delicious crackers as they had never tasted before. Then he set folk to eating Mooney's crackers who'd never eaten crackers before. In a year he had all Canada eating

Mooney's Perfection Cream Sodas

You'll see why when you try them. Haven't you curiosity enough to buy a box at your grocer's?

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.

DIRECT FROM FACTORY TO YOU

Economize on Gift-buying as Well as for Home Use.



HANDSOME DESIGNS in silverware are always noticeable on the well-set table.

OUR FLORENCE PATTERN (Handsome engraved like cut)

COLD-MEAT FORK makes handsome wedding gift.

Heavily Silver-plated. Eight inches long.

Our factory price 50 cents each (mailed in box), at your home.

The jeweler's price is usually \$1.50. You save three profits when you buy direct from us by mail.

Send stamps or express order. Address:

THE SOVEREIGN SPECIALTY CO., P.O. box 459. o London, Ont.

STAMMERERS

We treat the cause, not simply the habit, and therefore produce natural speech. Write for particulars THE DR. AINOTT INSTITUTE, BERLIN, ONT.

With the Flowers

Sowing Seed.

When sowing seeds, cover coarse ones to twice their depth, then press down with a bit of smooth board. Fine seeds should be sown on the surface and pressed in, being covered with the merest sprinkle of pulverized earth or fine sand. In order to avoid sowing very fine seed too thickly mix it with a little sand, then scatter where needed. A very fine sprinkler or a spray should be used for watering after the seeds have been sown.

Resting Plants.

Begonias, etc., which have been flowering exhaustively, should be rested during the summer. When the last flowers fade give less and less water, and put the plants in a cool, partially shaded place, giving finally, just enough water to keep the plants from dying outright. Keep in this condition until fall, then shift or re-pot, put in a warm situation, and water as usual. In this way you may have plants in fine condition for next winter's blooming.

Domestic Economy.

TO REMOVE STAINS.

By L. N., in Harper's Bazaar.

All women may not know that vinegar and salt will remove stains from brass. Make it into a paste, and apply it with a piece of flannel, rub off with a dry piece of flannel.

Ink spots may be successfully removed from white goods with lemon and salt; cover the stain with fine salt, squeeze the lemon juice on it, and rub between the hands. Some ink is obstinate and will require a second application. Ink may be removed from colored clothes by soaking the article in sweet milk.

Mildew will usually disappear if soaked in sour milk and then dried in the sun, then washed in the usual manner. Chloride of lime also will remove mildew stains. It must be used carefully and much diluted.

Pour boiling water on linen where tea has been spilled, or on small fruit stains. If the stain is large or obstinate, whiskey will do the work; the article may seem ruined, but just pour the whiskey all over it, and it will almost always disappear.

Alcohol will remove grass stains, coal oil will remove iron rust and many other stains. Soak the article in it, then wash it with the hands as though water were being used. Kerosene and a little soap used on a cloth will remove stains from an enamelled bath-tub.

Machine-oil stains are easily taken out if they are rubbed with fresh lard before being wet.

Mattings on the floor may be freed from stains with oxalic acid. Dissolve a teaspoonful of the crystals in a pint of clear warm water; wet a woollen cloth with this solution, and rub the spots; then take another part of clean water, add a handful of table salt, and wipe the whole floor over again. The new, bright look will delight you. This same recipe will be found capital for cleaning straw hats, using an old toothbrush instead of a cloth to apply the liquid. Dry in the sun.

Lemon will remove fruit stains from the hands and discolorations from under the finger-nails very quickly.

Turpentine will remove paint stains from clothing and window-glass, as well as rust marks from woollen goods. It is also a good disinfectant. Borax dissolved in warm water will remove grease stains, and another method is to put the stained article between two thicknesses of thin gum-paper, and press it with a moderately hot iron. French chalk, rubbed on at once, will usually dissolve grease

spots. It must be left on for some hours and then brushed off.

Equal parts of water and vinegar will remove fly stains from furniture; apply with a soft woollen cloth and rub dry.

A damp woollen cloth dipped in dry table salt will remove all traces of egg stains from silver.

A piece of flannel dampened with spirits of camphor will quickly remove stains from mirrors or window-glass and leave a brilliant polish.

THE RESTFUL WOMAN.

"She is the cleverest woman of my acquaintance," was the verdict of one neighbor on another, "because she is not in the least dull, and yet manages to be restful. I know so many bright women—bright in all sorts of different ways, but all alike in one thing. They are never reposeful. They are never strung up to concert pitch. They amuse you, charm you, stimulate you, dazzle you—but they never, never rest you by any chance."

It takes ability to be restful. Dull, placid, stolid women are more apt to be exasperating than soothing. The full life that flows smoothly is hard to attain. And yet the greatest service a modern mother can do her children is to bring them up free from nerve-strain, which she cannot hope to accomplish if she is always on the strain herself. The mother who radiates peace radiates strength also. The restlessness, the noise, the rush of the life of today, make it all the more necessary to maintain within the home an atmosphere of serenity and sweetness, so that, the threshold once crossed, the outside noise and clatter and strife are left securely behind. This is, perhaps, an old-fashioned conception of home. Many women nowadays want to turn the home out in the street, so to speak, and make the 'world's work' every thing and the home life nothing. But a restful home, once experienced, is a joy above the promises of progress to disturb; and a restful—and intelligent—woman alone can make it.

Humorous.

A well-known professor having boarded a few weeks with a farmer who was in the habit of taking a few summer guests into his house, decided to spend his vacation there again this year. In notifying the farmer of his intentions, he wrote: "There are several little matters that I desire changed, should my family decide to pass the vacation at your house. We don't like the maid, Mary. Moreover, we do not think a sty so near the house is sanitary." This is what he received in reply: "Mary has went. We habint hed no hogs sense you went away last September."

An Irish Judge once had a case in which the accused man understood only Irish. An interpreter was accordingly sworn. The prisoner said something to the interpreter.

"What does he say?" demanded His Lordship.

"Nothing, my Lord?" was the reply.

"How dare you say that when we all heard him? Come, sir, what was it?"

"My Lord," said the interpreter, beginning to tremble, "it had nothing to do with the case."

"If you don't answer I'll commit you, sir!" roared the judge. "Now, what did he say?"

"Well, my Lord, you'll excuse me, but he said, 'Who's that old woman with the red bedstead round her sitting up there?'"

At which the court roared.

"And what did you say?" asked the judge, looking a little uncomfortable.

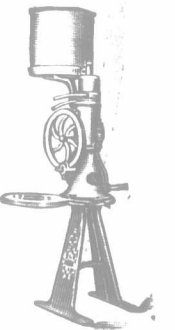
"I said, 'Whist, ye spalpeen! That's the odd boy that's going to be a yer'!"

Andrew Mack knew an Irishman and an Englishman who were recounting feats of physical strength. The latter, by way of showing his strenuousness, said that he swam across the Thames three times every morning before breakfast.

"Well," said Pat, "that may be all right, but it do seem to me that yer clothes would be on the wrong side of the river."

EMPIRE Cream Separator

If you could only see the Easy Running simple it is, how easily it turns, how perfectly it skims, how easily it is kept clean, how strong and durable it is, you would at once decide that it is the separator for you. No separator ever made such rapid strides in popularity as has the Empire. The reason is because it satisfies every purchaser. Everyone who has it speaks a good word for it. We ask the privilege of showing it to you, and letting you prove for yourself what it will do. Don't buy a separator until you investigate the Empire.



Free For Asking. Write your name and address on a postal card and send for our Catalogue No. 11.

Empire Cream Separator Co. of Canada, Ltd. Toronto, Ontario.

\$4.50 SPRING SUITS

We make ladies suits. Our leader is a sport suit in black, navy, grey, dark red, fawn, seal brown and myrtle green. The cloth is wool. It is a \$15 tailored suit. We manufacture it for you at the factory price \$12.50. We sell hundreds of these suits. The model is the latest spring style. The jacket has a light fitting back with half light fitting front, with belt at waist line. It is lined in mercerized satin. The skirt is seven gored with double tuck at each seam tailor attached in silk, faced with canvas, and bound with velvet. It is elaborately trimmed with buttons. Skirt or coat alone \$2.50. Any suit may be returned if not entirely satisfactory and money refunded 30 or 45 days in stock.

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

Shirt waist suits from astre or mohair, any shade, made in latest spring style waist and skirt \$1.50.

Skirts alone from any fabric \$2.50 like model.

Waists, Spring styles, any shade China silk \$2.25, vest \$1.00, all shades \$1.50, velvet \$2.00, white lawn \$1.00 insertion trimmed.

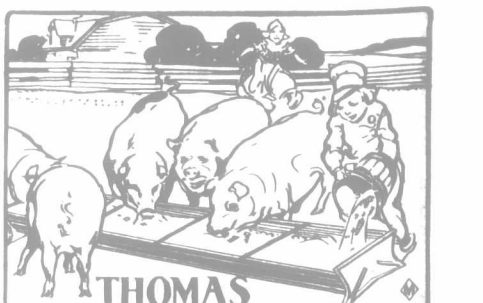
All waists are new styles, large puff at shoulder tucked sleeve from cuff up to elbow, box pleat down front, cuffs of tucks on each side down front of skirt to match waist. An attractive summer suit worth \$7. Only \$3.75, factory price. Money returned if unsatisfactory.

Raincoats, \$7.00 for \$12 kind. Cravettes all shades. Jackets, like in steel shown or box style in cloth like silk \$2.50. Back taffeta silk \$1.50, black china silk \$4.00, black velvet \$3.95. Beautifully made.

Southcott Suit Co., LONDON, CAN. 14 Market Lane.

Shirt-waist suits \$3.75 (of waist and skirt) any color, union linen, spring style waist, with wide tucks down each side of wide box pleat in centre, which is trimmed with a row of fine insertion, large puff at top of sleeve. Skirt is 7-gore, tucks down each seam to knee, where skirt flares; strip of fine insertion down front of skirt to match waist. An attractive summer suit worth \$7. Only \$3.75, factory price. Money returned if unsatisfactory.

Impossible for hogs to spill food from this trough or to interfere with each other when feeding. Much more sanitary than wooden troughs, which also leak and wear out quickly. Made in five-foot lengths and up to any size required—light enough to be readily moved as desired. If your dealer doesn't sell it, write Thomas Brothers, Limited ST. THOMAS, ONT.



THOMAS HOG TROUGH

Built to last a life time

Impossible for hogs to spill food from this trough or to interfere with each other when feeding. Much more sanitary than wooden troughs, which also leak and wear out quickly. Made in five-foot lengths and up to any size required—light enough to be readily moved as desired. If your dealer doesn't sell it, write Thomas Brothers, Limited ST. THOMAS, ONT.

THOMAS BROTHERS, LIMITED ST. THOMAS, ONT.

IS WOMAN'S BEST FRIEND

It cured me of painful periods, leucorrhoea, displacement and other irregularities after I had been given up to die. I will send a free trial package of this Wonderful H. M. Treatment to suffering ladies who address, with stamp, MRS. F. V. CURRAH, Windsor, Ont.

ORANGE BILLY

The LEAVENWORTH CASE

By A. K. Green.

CHAPTER XXVIII.—Continued.

"Perhaps you may be willing, then, to give me some advice. The truth is, I am in a very curious predicament: one from which I don't know how to escape, and yet which demands immediate action. I should like to tell you about it, may I?"

"You may; I shall be only too happy to give you any advice in my power."

She drew in her breath with a sort of vague relief, though her forehead did not lose its frown.

"It can all be said in a few words. I have in my possession a packet of papers which were entrusted to me by two ladies, with the understanding that I should neither return nor destroy them, without the full cognizance and expressed desire of both parties, given in person or writing. That they were to remain in my hands till then, and that nothing or nobody should extort them from me."

"That is easy understood," said I, for she stopped.

"But, now comes word from one of the ladies, the one, too, most interested in the matter, that for certain reasons the immediate destruction of those papers is necessary to her peace and safety."

"And do you want to know what your duty is in that case?"

"Yes," replied she, tremulously.

"It is to hold on to the papers like grim death, till released from your guardianship by the means to which you have pledged yourself."

"Is that your opinion as a lawyer?"

"Yes, and as a man. Once pledged in that way, you have no choice. You might be doing a greater wrong, by destroying in this way what is manifestly considered of value to them both, than by preserving the papers intact, according to compact."

"But the circumstances? Circumstances alter cases, and, in short, it seems to me that the wishes of the one most interested ought to be regarded, especially as there is an estrangement between these ladies."

"No," said I, "two wrongs never make a right. The papers must be preserved, Mrs. Belden."

Her head sank very despondingly; evidently it had been her wish to please the interested party. "Law is very hard," she said, "very hard."

"A contract is a contract," said I, "and cannot be tampered with. Having accepted the trust and given your word, you are obliged to fulfil to the letter all its conditions."

"I suppose you are right," said she, and became silent.

Watching her, I thought to myself: "If I were Mr. Gryce or even Q, I would never leave this seat till I had probed this matter to the bottom. But being neither, I could only keep her talking upon the subject until she should let fall some word that might serve as a guide to my further enlightenment; I, therefore, turned with the intention of asking her some question, when my attention was attracted by the figure of a woman coming out of the back-door of the neighboring house, who for general dilapidation was a perfect type of tramp. Gnawing a crust which she threw away as she reached the street, she trudged down the path, her scanty dress, piteous in its rags and soil, flapping in the keen spring wind, and revealing ragged shoes red with the mud of the highway."

"There is a customer," said I, "that may interest you."

Mrs. Belden seemed to awake from a trance. "Poor thing!" she muttered; "there is a case for charity, to be sure. But I cannot do much for her to-night. A good supper is all I can give her."

And going to the front door she bade her step round the house to the kitchen, where in another moment I heard the rough creature's voice rise in one long "bless you!"

But supper was not all she wanted. After a decent length of time, employed as I should judge in mastication, I heard her voice rise once more in a plea for shelter.

"The barn, ma'am," I heard her say, "or the wood-house, any place where I can lie out of the wind." And she commenced a long tale of want and disease, so piteous that I was not surprised when Mrs. Belden told me, upon

re-entering, that she had consented to allow the woman to lie before the kitchen fire for the night.

"She has such an honest eye," said she, "and charity is my only luxury, you know."

The interruption of this incident effectually broke up our conversation. Mrs. Belden went upstairs, and for some time I was left alone to determine upon my future course of action. I had just reached the conclusion that she would be fully liable to be carried away by her feelings to the destruction of the papers in her charge, as to be governed by the rules of equity I had laid down to her, when I heard her stealthily descend the stairs and go out of the front door. Distrustful of her intentions, I took up my hat and hastily followed her. She was on her way down the main street, and the settled swing into which she soon altered her restless pace, satisfied me that she had some distant goal in prospect. Before long I found myself passing the hotel, even the little school-house that was the last building at this end of the village, and stepping out into the country beyond.

But still her fluttering figure hasted on, the outlines of her form with its close shawl and neat bonnet, growing fainter and fainter in the now settled darkness of an April night. At last we reached a bridge. Over this I could hear her pass, and then every sound ceased. She had paused and was evidently listening. It would not do for me to pause too, so gathering myself into as awkward a shape as possible, I sauntered by her down the road; but arrived at a certain point, stopped and began retracing my steps with a sharp look-out for her advancing figure, till I had arrived once more at the bridge. She was not there.

Convinced now that she had discovered my motive for being in her house, and by leading me from it, had undertaken to supply Hannah with an opportunity to escape, I was about to hasten back to the charge I had so incautiously left, when a strange sound, heard at my left, arrested me. It came from the banks of the puny stream which ran under the bridge, and was like the creaking of an old door on worn-out hinges.

Leaping the fence, I made my way as best I could down the sloping field in the direction from which the sound had come. It was quite dark and my progress was slow; so much so, that I began to fear I had ventured upon a wild-goose chase, when an unexpected streak of lightning shot across the sky, and by its glare I saw before me what seemed to be an old barn. From the rush of waters near at hand, I judged that it was built on the edge of the stream, and consequently hesitated to advance, when I heard the sound of heavy breathing near me, followed by a stir as if some one feeling his way over a pile of loose boards, and presently, while I stood there, a faint blue light flashed up from the interior of the barn, and I saw through the tumble-down door that faced me, the form of Mrs. Belden standing with a lighted match in her hand, gazing round on the four walls that encompassed her. Hardly daring to breathe lest I should alarm her, I watched her while she turned and peered at the roof above her, which was so old as to be more than half open to the sky, at the flooring beneath, which was in a state of equal dilapidation, and finally at a small tin box which she drew from under her shawl and laid on the ground at her feet. The sight of that box at once satisfied me as to the nature of her errand. She was going to hide what she dared not destroy. I edged my way up to the side of the barn and waited till she should leave it, knowing that if I attempted to peer in at the door, I ran great risk of being seen, owing to the frequent streaks of lightning. Minute after minute went by, and still she did not come. At last, just as I was about to start impatiently from my hiding-place, she reappeared and began to withdraw with faltering steps toward the bridge. When I thought her quite out of hearing, I stole from my retreat and entered the barn. It was of course as dark as Erebus, but thanks to being a smoker I was well provided with matches, and having struck one, I held it up; but the light it gave was very feeble, and as I did not know just where to look, it went out before I had obtained more than a cursory glimpse of the spot where I was. I now for the

first time realized the difficulty before me. She had probably made up her mind before she left home, in just what portion of this old barn she would conceal her treasure; but I had nothing to guide me! I could only waste matches. And I did waste them. I had taken the last in my hand, before I became aware that one of the broken boards of the floor was pushed a little out of its proper position. One match! and that board was to be raised, the space beneath examined, and the box, if there, lifted safely out.

(To be continued.)

Points for the Homely Girl.

It behooves the homely girl to cultivate a disposition which will so irradiate her ugliness that it is transformed into seeming beauty.

She must possess lovely traits of character to compete with her beautiful sister.

She must pay attention to details that may not be necessary for the other.

Her dress should be modest, and becoming in fashion and color.

Her hair must be scrupulously neat and arranged to the best advantage.

Her carriage must be erect and graceful.

She, more than all others, must have a care to keep her voice well modulated.

Her manners must be gentle and unobtrusive.

She must be beautiful at heart.

She must read elevating thoughts, look at good pictures, listen to uplifting utterances.

She must repress the angry or fretful word and discover the delight of bestowing an unexpected endearment.

She must not expect attentions, but be eager to render them.

Above all, she must be interested in something, heart and soul, brain and body, as far as possible forgetting herself in some congenial employment, whether it be a duty or a pastime. There is no beautifier which is equal to a genuine interest in something—anything. It lends the sparkle of eagerness to the most lack-luster eye, it puts vivacity into the most listless expression, and makes the ugliest features interesting.

So, let the homely girl have her

hobby, and if it be a noble or inspiring one, it will only make her more attractive.

Truly, the efforts the homely girl must put forth are many, but in the long run they will pay a hundred-fold—Exchange.

Recipes.

Lemon Cake.—Mix together one cup sugar and a piece of butter size of an egg. Add 3 beaten eggs, 1 cup sugar, and 1/2 cup milk. Mix in some chopped lemon peel, and mix to a batter with "Five Roses" flour, to which 2 teaspoons baking powder have been added.

Drop Cakes.—Three cups "Five Roses" flour, 1 1/2 cups sugar, 3 teaspoons baking powder, butter rubbed in to make like pie-crust. Add currants and chopped lemon peel, and mix to a very stiff batter with a little milk.

Israel Zangwill, the author, at the Franklin Inn, a literary club in Philadelphia, told a story of a crafty political boss.

"This boss," he said, "desired votes for his candidate and stopped at nothing to get them. He sent for a poor man one day, and asked for his vote.

"'Oh, no,' the poor man said, firmly. I can't do that. I am already promised to the Opposition."

"'You are, eh?' said the boss. 'And how much is the Opposition paying you?'"

"'Twenty dollars,' the poor man answered.

"The boss assumed an expression of disgust.

"'That was a low price, my friend, an unfairly low price,' he said, 'to give you for your vote. We'd have done better by you. We'd have given you twenty-five dollars.'

"'It was not too late. The election was two days off. The poor man wavered.

"'Would you?' he said. 'Would you?'"

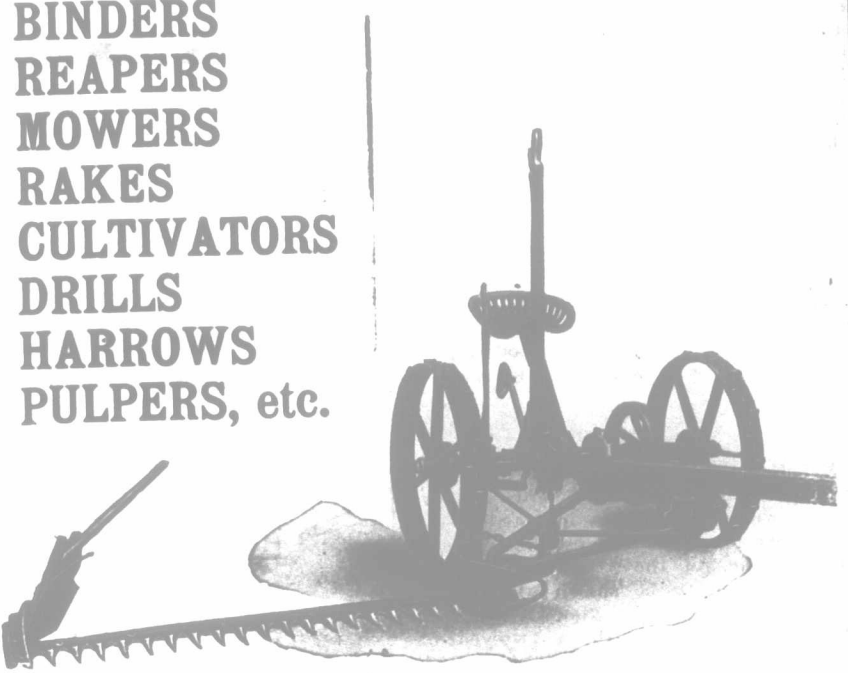
"'To be sure we would,' said the boss. 'Here, it isn't too late yet. Give me the other party's twenty, and I'll give you our twenty-five now.'

"The poor man made the exchange joyfully, and thus the crafty boss had the satisfaction of causing his opponents to pay four-fifths of one of his own bribes."

The Noxon Company, Ltd.

MANUFACTURERS OF

**BINDERS
REAPERS
MOWERS
RAKES
CULTIVATORS
DRILLS
HARROWS
PULPERS, etc.**



Noxon Front-cut Mower No. 3.

Agencies at all principal points, or write direct to

THE NOXON COMPANY, LIMITED, - Ingersoll, Ont.

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

TRADE TOPICS.

HOOVER POTATO DIGGER.—A machine that has attracted wide attention and won much commendation wherever exhibited or tested is the Hoover Potato Digger, manufactured by the Hoover-Prout Co., Avery, Ohio. Built to work and to wear, it is an implement that seems to have a great future in the potato field. See advertisement in this issue, showing cut of the machine, and write at once for catalogue, mentioning this paper.

WHAT RHEUMATISM IS.—Rheumatism is a deep-seated, dangerous disease, caused by the absorption into the blood of effete refuse matter, which should be carried out of the system through the proper channels. This poison soon destroys the purity of the blood, and as it circulates through the body, the acid particles that are thrown off penetrate the nerves, muscles, membranes and even the bones. In acute articular rheumatism, the affection usually commences suddenly; sometimes pain or soreness in the joints precedes the disclosure of the disease. The joints become swollen, particularly those of the knee, ankle, wrist, elbow, and the smaller joints of the hands and feet. Acute rheumatism is always identified with more or less feverish condition and profuse perspiration, especially at night, same being strongly acid, showing the system is attempting to throw off the poisonous particles. Chronic rheumatism is the same as the acute form, but milder and less extended, though, strange to say, more persistent and difficult to cure. Muscular rheumatism also exists under two forms, acute and chronic, the latter as in articular rheumatism, not so violent in attack, but pitiless in its hold on the system. With the blood in an unhealthy condition, exposure to cold, combined with moisture, the night air, sudden changes in the weather, sleeping between damp sheets, sitting in a cold, damp room, especially when heated from exercise, or an acute attack of indigestion is sufficient to bring on an attack of rheumatism. In those who have never before experienced this difficulty, and cause violent attacks in those who are subject to it. Vitas-Ore, the natural mineral medicine advertised extensively in these columns, is recommended to cure rheumatism, even in chronic cases; being a powerful blood purifier, it soon brings about a complete and radical change in the circulation. It is absorbed into the blood, neutralizing the acid secretions, rendering them harmless for evil, and gradually eliminates them from the system. In severe cases it keeps the blood in a good condition. Theo. Noel, Geologist, F. A. Dept., Toronto, Ont., the proprietor of Vitas-Ore, wants to send a full-sized, \$1 package of this remarkable natural remedy to every reader of the "Farmer's Advocate" who is ailing and in need of medicinal treatment. He takes all of the risk in sending it, and the user, who is to be the judge, need not pay a penny unless it benefits. All that is taken of this offer by writing to Prof. Noel, at Toronto, Ont., immediately.

GOSPEL.

Mr. John McFarlane, Dutton, Ont., advertises for sale three registered Short-horn bulls, six to twelve months old, red and roan, which he is offering at tempting prices. Write him for particulars.

Mr. Peter White, Jr., Pembroke, Ont., proprietor of Belmar Parc herd of Short-horns, writes: "I am indebted to the advertisement in your paper for the sale, all but one, of the young bulls listed. One has gone to be shown at the Dominion Exhibition at New Westminster this year along with a two-year-old heifer, which I expect to see win. The young bull I offer in my change of advertisement is a really first-class one, a year old on the 25th April. He is of the Bruce Mayflower family, same as the Toronto champion of last year. With such sires in use in his herd as the imported Scotch bulls, Merryman =32075=, Pride of Windsor =50071= and Nonpareil Archer =45202=, the Belmar Parc Herd should produce the highest class of stock individually as well as in breeding.

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

A Canadian Factory



For Canadian Farmers

Did you ever stop to think what that great factory of the International Harvester Company of Canada, (Limited), at Hamilton, Ontario, means to you?

It means, first of all, implements and machines for the Canadian farmer, built on Canadian soil, by Canadian workmen, and so far as possible, of Canadian materials.

It means a factory whose facilities for turning out work of the highest quality are not excelled in the whole world.

It means a factory backed by years of experience, dating from the very invention of modern labor saving farm machinery.

It means the production of a line of harvesting machines, seeding and tillage implements and other labor savers for the farmer, of the most approved patterns, constructed of the best procurable materials, built by the

methods best calculated to give them strength and durability.

It means, in short, a line of implements and machines for your use, of a quality and excellence impossible to produce without such a factory full of such facilities, operated by such experience.

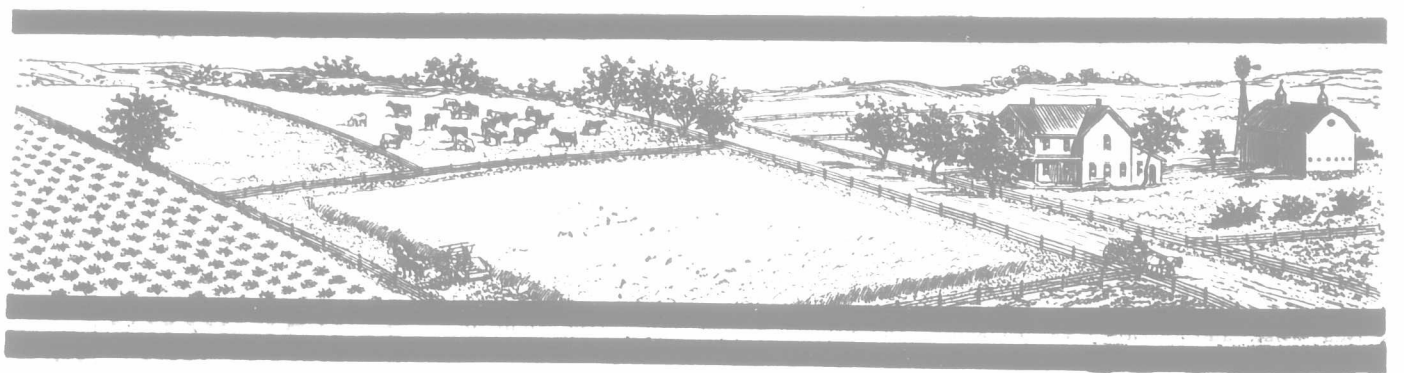
We ask you as a practical man who wants to get the most for his money, to investigate the International line before you buy farm implements of any kind.

It will take only a few minutes of your time to talk to the International dealer and see for yourself the labor-saving, trouble-saving, money-saving advantage he has to offer you.

Call on the International Dealer.

These machines are manufactured by

INTERNATIONAL HARVESTER COMPANY OF CANADA, (Limited)
Works; Hamilton, Ontario, Canada.



The International lines are represented by different dealers. See them for catalogues of

DEERING AND McCORMICK

Binders, Reapers, Mowers, Rakes, Tedders, Corn Binders, Huskers and Shredders, Gasoline Engines, Knife Grinders, Disc Harrows, Smoothing Harrows, Lever Harrows, Spring Tooth Harrows, Hoe Drills, Disc Drills, Cultivator and Seeder, Broad-cast Seeder, Scufflers, Binder Twine. Also selling agents for Chatham and Petrolia Wagons.

LAST MOUNTAIN VALLEY

Steamboat Service

Opens Second Week in May.

Railway Service

to Strassburg by July.

Write for free Books, Maps, etc.



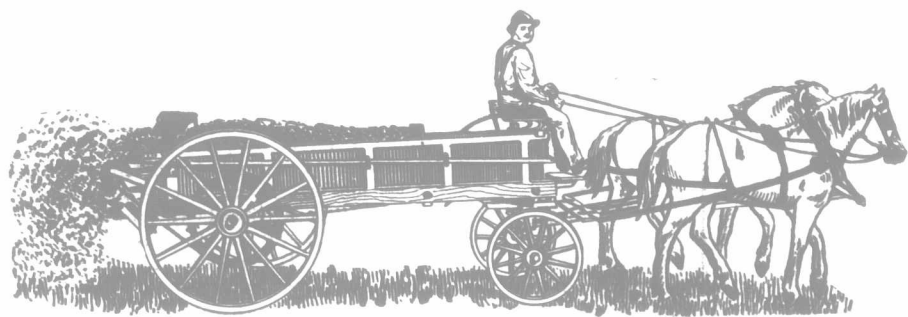
In Township 21, Range 21.

The Finest Wheat Land in North-east Assiniboia.

Average crops for 5 years 25 bushels per acre.

NO FROST | NO RUST

Wm. Pearson & Co., Winnipeg.



"Success" Manure Spreader

has every known improvement, many of which are not found on any other Spreader. Among them are:

- Change of Feed Device**—By its use the amount of manure spread can be exactly regulated from the seat while the machine is in motion.
- Direct Chain Steer Drive**—Is simpler and stronger than the old-fashioned gear drive; dispense with all complicated gears, pinions and sprockets.
- Apron Returning Device**—Returns automatically by the use of a lever worked from the driver's seat, to place for reloading.

These are only a few of the many good features. Booklet explains them all, and is sent to any address free for the asking.

The PARIS PLOW CO., Ltd., PARIS, ONT.

Agents for Quebec and Maritime Provinces:

THE FROST & WOOD COMPANY, LTD.,
Montreal, Quebec, St. John and Truro.

Western Agents: **THE STEWART NELSON CO., Ltd., Winnipeg, Man.**

You Can Kill Mustard Absolutely Free

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

Spramotor

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



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

Agents Wanted

USE CARNEFAC STOCK FOOD

For those delicate Calves and Hogs.

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 produce.

The Settlers' Association,
322 Cambie St.,
P. O. Box 329. Vancouver, B. C.



Sewing Machines Free, for 20 days trial. We send out all machines on 20 days' free trial before we ask you to accept or pay for them. If not satisfactory, send them back at our expense.

We sell a 5-drawer drop-head sewing machine, handsome oak woodwork, for \$17.50; a better machine, same pattern, guaranteed for 20 years, sells for \$21.50; machines with ball bearings and extra fine woodwork, cost a little more, but only about half what others charge. Our sewing machine catalogue, fully explaining our different styles, free. Write for it. Windsor Supply Co., Windsor, Ont.

ADVERTISE IN THE ADVOCATE

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

GOSSIP.

SHORTHORNS AT THE ROYAL DUBLIN.

At the Royal Dublin Society's Spring Show, at Ball's Bridge, April 25th to 28th, Shorthorns made a very strong showing, the number of entries being 493 for this breed alone. Aberdeen-Angus were next in number, namely, 144. Scotch-bred Shorthorns won most of the principal prizes, the championship and Chaloner Plate for best bull being awarded to the roan three-year-old, Roan Conqueror, bred by Messrs. W. & J. W. Peterkin, Dunglass, got by the Duthie-bred Collyme Conqueror, dam Ruby, by Chieftain 2nd. Last year he was first at the Highland Show as a two-year-old, and first at Edinburgh. There were 122 entries in the class for bulls born in 1904, and the first prize went to Mr. Tolard-Aylward's roan, Diamond Link, thirteen months old, bred by Mr. Durno, Westerton, and got by Diamond Mine. Mr. Harrison's white bull, Royal Ensign, bred by Mr. Duthie, and sired by Royal Edward, was second. In the two-year-old class, there were 58 entries, and first was won by Mr. F. Miller's Lime Park Champion, bred by Mr. Crawford, Co. Tyrone, sired by Oxford May Boy; second going to Mr. R. W. Bell's Star of Scotland, by Cornelius, from a dam, by Star of Morning. Junior two-year-olds were led by Mr. Miller's roan Moonrise, by Moonlight.

QUESTIONS AND ANSWERS. Miscellaneous.

WHEN JUMBO DIED—BARNUM'S CIRCUS IN LONDON.

1. What year was Barnum's big elephant, Jumbo, killed?
 2. When was Barnum's circus in London last? (MRS.) M. O. W.
- Ans.—1. Jumbo died at St. Thomas, Ont., Sept. 15th, 1885.
2. Barnum's circus was last in London (Ont.), July 31st, 1895.

MAINTAIN LINE FENCE.

A and B have a line fence. A has fixed his end of the fence, and on B's end of the fence there is a creek, which is dry in summer. B claims A has to help to build the part of fence in the creek. A has kept up his end of fence for twenty-three years. Does A have to help B to fix the fence across the creek? Ont. FARMER.

Ans.—No.

LINE FENCING.

The farm, which we have a part of, was given by the father to two sons over fifty years ago, and the line fence was then divided, and has always been kept up that way. Since then, I have bought one son's farm, and the other one gave part of his to his son, but nothing was said about the fence being changed, and I have always kept it up since I bought the farm, about sixteen years ago.

1. Can I be compelled to build the fence between the son's farm and mine?
2. Am I compelled to change the fence in any way? SUBSCRIBER, Ont.

Ans.—1 and 2. We think not.

Sick Fowls

Dr. Hess Poultry Pan-a-co-a is positively guaranteed to cure cholera, indigestion, diarrhoea, gapes, roup, leg weakness, etc.

It is a perfect tonic for poultry of all kinds, strengthening the egg-producing organs, and compelling the maximum conversion of food into egg-making and flesh-forming elements.

Dr. HESS Poultry Pan-a-co-a

is a scientific poultry tonic, formulated by Dr. Hess (M.D., D.V.S.). Costs but a penny a day for 20 to 60 fowls.

1-2 lb. package 25c; 5 lbs. 85c; 12 lbs. \$1.75; 25-lb. pail \$3.50. Sold on a written guarantee.

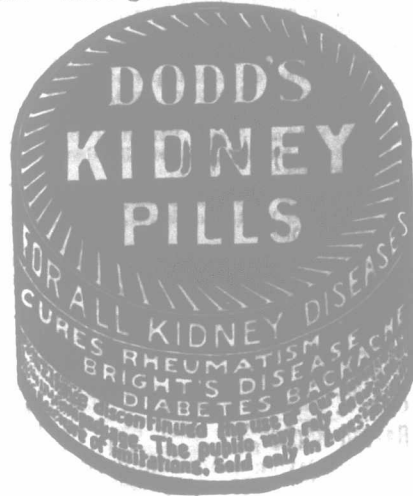


Send 2 cents for Dr. Hess 48 page Poultry Book, free.

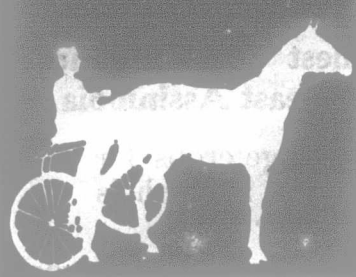
DR. HESS & CLARK
Ashland, Ohio, U.S.A.
INSTANT LOUSE KILLER KILLS LICE.

"Somehow this picture of Martha don't look natural to me," mused Uncle Goshall Hemlock, as he surveyed his wife's new photograph.

"Somehtin' is wrong about it, sure. H-m-m! What kin it be? Oh, I see now. She's got her mouth sht."



WE WILL MAIL YOU A BEAUTIFUL PICTURE OF DAN PATCH FREE



DAN PATCH 1.50
From a Practical Farmer:
MORRELLVILLE, Ont.
International Stock Food Co.,
Toronto, Canada
Dear Sir—Having given your Stock Food a trial, I think without exception that it is the best I have ever tried. I have fed it to stock of all kinds and have had good results. Please find enclosed the sum of \$15.00 for Stock Food.
Yours truly,
ARTHUR MCCREARY

PRINTED IN SIX COLORS SIZE 28 X 22 INCHES

The picture we will send you is a large reproduction of the above engraving, printed in six brilliant colors. It is the finest picture of the world's famous champion pacing stallion in existence, and is worthy of a place in any home. If you like a good horse you want this picture to frame.

WRITE US TO-DAY AND ANSWER THE FOLLOWING QUESTIONS:
1st—How much stock of all kinds do you own? 2nd—Name this paper.
Address owners at once: International Stock Food Co., Toronto, Canada

\$360 NET PROFIT

In feeding one ton of International Stock Food to your cattle or hogs. One hundred pounds will make you \$18.00 net profit. International Stock Food, with the world famous line, "3 FEEDS FOR ONE CENT" is known everywhere. It is prepared from high class powdered roots, herbs, seeds and barks, and purifies the blood, tones up and permanently strengthens the entire system, cures and prevents disease, and is a remarkable aid to digestion and assimilation, so that each animal will gain more pounds from the grain eaten.
It won't cost you one cent to feed International Stock Food if not satisfactory. It is equally good for all kinds of stock. Will fatten in 30 days' less time. In use by over 2,000,000 farmers and endorsed by over 100,000 dealers.
We manufacture all kinds of Veterinary Remedies, Spraying Machines, Dipping Tanks, Harnesses, etc.

ADDRESS AT ONCE INTERNATIONAL STOCK FOOD CO. TORONTO

POULTRY AND EGGS

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

BUFF Orpington eggs, \$1 per 15, \$4 per 100. E. Brown, Hayville, Ont., breeder and importer.

BARRED Rocks (exclusively)—For the balance of the season we will sell eggs from our best stock at \$1 per setting, \$5 per 100. A. E. Sherrington, Walkerton, Ont.

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

BUFF Orpington eggs—Exhibition stock \$2 per 15; utility stock, \$1 per 15; extra heavy layers; nine chicks guaranteed. Hugh A. Scott, Caledonia, Ont.

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

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

BUFF Orpingtons in "Maple Shade" Poultry Yards are headed by a beautiful cockerel from Willow Brook Farm, and cockerel same breeding as last Ontario. Eggs, \$1 and \$2 per 15. Jno. A. Barr, Ingersoll, Ont.

EGGS for hatching—Burr d Rocks, White Rocks, Buff Orpingtons, White and Silver Wyandottes, \$1 per 15. Black and White Orpingtons, \$5 per 15. Prizewinning birds in all these pens. F. W. Krouse, Gu Iph, Ont.

EGGS for hatching—From a pen of Barred Rock hens, "National Strain," selected for their choice barring and persistent-laying qualities; mated with two large, healthy, well-marked cockerels. Price, \$1 per setting, or 3 settings for \$2. W. C. Shearer, Bright, Ont.

EGGS from White and Silver-laced Wyandottes, \$1 per 15. T. Barrett, Thornbury, Ont.

EGGS for hatching from choice pen Black Minorcas. \$1.50 per setting. Also Fox Terrier Pups. F. Attwood, Vanneck.

LARGE Snow-White Wyandottes, Baldwin strain, great winter layers, strongly-fertilized eggs, \$1.00 per 15. Incubator lots special. Chas. A. Goudier, Vinemount, Ont.

PRIZEWINNING Buff Orpingtons Eggs, \$2 per setting. Clin Blyth, Marden, Ont., member Canadian Orpington Club.

RHODE ISLAND REDS, rose comb, bred six years, from carefully selected, heavy winter layers, large brown eggs. Setting \$1.50. Jno. Luscombe, Merton, Ont.

RHODE ISLAND REDS—Hardy, vigorous, winter layers, rose and single comb, \$2 per setting. Incubator eggs, \$5 per 100. S. H. Smiley, St. Thomas, Ont., box 1139.

"RINGLETS," Thompson's Rocks, the best winter layers; all stock imported. Eggs from best pens, \$2 per 15. Incubator eggs, \$5 per 100. Geo. D. Melkie, Morrisburg, Ont.

THE National Strain Barred Rocks—Eggs from choice matings, \$1 per 15. Geo. McCormack, Rookton, Ont.

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

WHITE Wyandottes—The farmers' general-purpose fowl. Eggs from first-class stock, \$1 per 15. Daniel T. Green, Brantford.

Barred Plymouth Rocks—Eggs from pen No. 1 of E. B. Thompson's pullets, \$1.50, and from No. 2, headed by cock whose sire was winner at New York, at \$1 per setting. These are from good laying strain.

Barred Rocks—We offer eggs for hatching from pens good in size, shape, color and laying qualities at \$1 per 15, \$2.50 per 30, \$5 per 100. 1905 egg circular free. H. GEE & SONS, Raleigh Centre, Ont.

ADVERTISEMENTS

Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and miscellaneous advertising. TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than \$5.00.

FOR SALE—200,000 acres, including both wild and improved farm lands, in the celebrated Moose Mountain district. Prices ranging from \$8 to \$25 per acre. D. C. McFee, Carlyle, Assn.

FOR SALE—The imported bull, Royal Prince 45223 (32181), sired by the Dutch-bred Golden Fame. He is quiet, active and sure. For further particulars, apply to W. A. Galbraith, Iona Station.

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

LAND for sale—Improved or unimproved, in the famous Moose Mountain District. Six to fifteen dollars per acre; easy payments. Geo. Kellert, Carlyle, Assn.

WANTED—A one- or two-horse tread power, in good working shape; must be cheap. Apply to Arthur D. Viney, St. Mary's, Ont.

ELMHEDGE SCOTCH SHORTHORNS, Stamfords, Minns, Nonpareils, Crimson Flowers, Starr Floras and Lavinias. Our herd will stand comparison with any. We reserve nothing; 45 head of both sexes, all ages, for sale. O. James Bowes, Strathnairn P.O., Wexford Ont.

EVERGREEN SCOTCH-TOPPED SHORTHORNS STOCK FARM Young stock of either sex by imp. sire at reasonable prices. For particulars write to DONALD McQUEEN, Leaderkin P. O., Mount Forest Sta. and Telegraph.

STOP and THINK For a small cost you can have the desire for liquor or tobacco entirely removed. Call or write PROF. J. H. DUNN, 553 Colborne St., London, Ont. All communications strictly private. Consultations free.

GALT HORSE SHOW

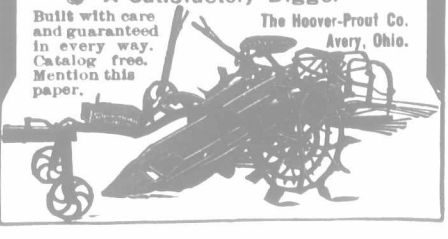
JUNE 1, 2, 3

Reduced Fares on All Railways.

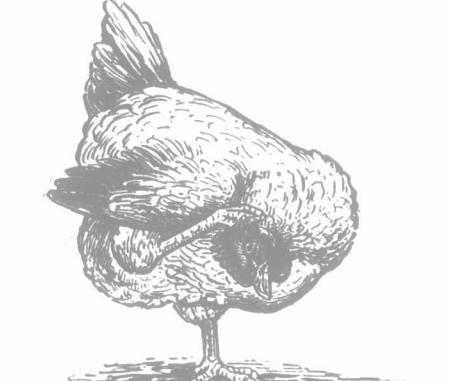
C. R. H. WARNOCK, Secretary, Galt, Ontario.

WHEN WRITING TO ADVERTISERS Please Mention "Advocate"

HOOVER Potato Digger



A Satisfactory Digger Built with care and guaranteed in every way. Catalog free. Mention this paper.



Lousy Hens

Lice are often fatal to poultry and even when not they will so fret a hen that her vitality will be wasted—her egg production curtailed and her weight diminished. Many supposed cases of cholera among poultry are really cases of lice.

INSTANT Louse Killer

Is sure, quick death to these pests while non-poisonous to the fowls. It is a powder sold in cans with perforated top, convenient for sprinkling on roosts, nests, etc. It also kills bugs on cucumber, squash and melon vines, worms on cabbages, slugs on rosebushes. Instant Louse Killer is the original powder louse killer, put up in round cans with perforated top. Be sure of the word "Instant" on the can—it has twenty-five imitations.

1 lb. 35 cents. 3 lbs. 85 cents.

If your dealer cannot supply you send your order to us

Sold on a Written Guarantee Manufactured by DR. HESS & CLARK Ashland, Ohio, U.S.A.

RUPTURE

Sufferers will rejoice to learn that Medical Science has at last triumphed in producing a positive Cure for this agonizing and dangerous ailment. The results are astonishing the Medical Profession as well as all Ruptured. Cases that have defied human ingenuity have yielded in a short time. No operation, pain, danger, or time from work to be one of the many remarkable cures performed is that of J. R. Ketcheson, Esq., Justice of Peace, Madoc, Hastings Co., Ont., whose portrait here appears. He is cured at 90 years. To further introduce this wonderful cure Dr. W. S. Rice, 21 East Queen Street (Block 277) Toronto, Ont., the Discoverer, will send a Trial, also his book, "Can Rupture be Cured?" Write to-day—Sure—Now.

CURED

FREE

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.

BREEDING TWO-YEAR-OLD FILLIES.

I have a span of mares. One will be two years old this spring; the other was two last fall. They are nearly pure-bred Clydesdales, and of choice quality. Would it be advisable to breed them this season? Are they too young? Would it affect their growth? W. B.

Ans.—It is not unusual in Scotland to breed Clydesdale fillies at two years old. If they are of fairly good size for their age, and are kept in good growing condition, with ample exercise while carrying their foals, we do not think that breeding them at this age will materially affect their growth.

MANURE FOR PASTURE.

I have a large quantity of manure for which I have no place except a pasture field that I intend to break up in the fall, unless I wait till after harvest. Would it be advisable to spread it on the sod, or leave it in yard till after harvest? It, no doubt, would lose a good deal in that time. J. R. P.

Ans.—You are on the horns of a dilemma. If you leave in the yard, a great deal of loss will occur, and if you spread on the field at this season, the pasture will not be over-acceptable to the stock. The best plan would have been to haul this manure out in the winter, spreading it over the pasture. Under the circumstances, we would recommend pasturing the field, or part of it, pretty close, so as to get the benefit of what grass there is; then spread the manure on the pastured part, using a manure spreader to make it as fine as possible. By the time the grass is large enough to turn stock in again, the manure will have settled down about the roots of the grass. Rain will have carried a good deal of fertility down into the soil, and the smell of fresh-spread manure will have largely evaporated. The field will be in good condition for next year, as no method of handling manure is attended with less loss than spreading it, fresh-made, on grass land.

Messrs. W. G. Pettit & Sons, Freeman, Ont., report the sale to Mr. Geo. Laughlin, of Caledon, Ont., of the imported Shorthorn bull, Scotland's Pride (79907), sired by the great stock bull, Star of Morning. Scotland's Pride has been used successfully for five years in the Freeman herd, and should make a good record in the improvement of stock in the district to which he has gone.

Messrs. J. Crouch & Son, LaFayette, Indiana, the great importers of Percheron and German Coach horses, report the following sales of high-class stallions from their London branch barns within the past few weeks: "To Hilborn & Henry, Drayton, Ont., the grey Percheron stallion, Cindrier, to John Chambers, Kippen, Ont., the black Percheron stallion, Voltaire; to a stock company at Stony Creek, Ont., the black Percheron stallion, Curieux; to Walter Woods, Cornwall, Ont., the grey Percheron stallion, Prospect, and to J. A. Campbell, V. S., selected by him for the Government of Newfoundland, the German Coach stallion, Grillon. These were all animals of the highest class, and all samples of their kind. This famous farm is noted for sending out the best, and this makes a total of 19 head sold from their London branch barns. They will have the greatest of exhibits at the coming Centennial Exposition at Portland, Oregon, this summer, and will also exhibit their Portland prizewinners at the Toronto, Ottawa, and London fall fairs, and will be found by their Canadian customers at their usual offices, London, Ont., for business next fall and winter."

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

JOHN CHAMBERS & SONS

Holdenby, Northampton, Eng.

Farm over 2,000 acres of land just in the centre of the Shires, and breed the very best and soundest of the

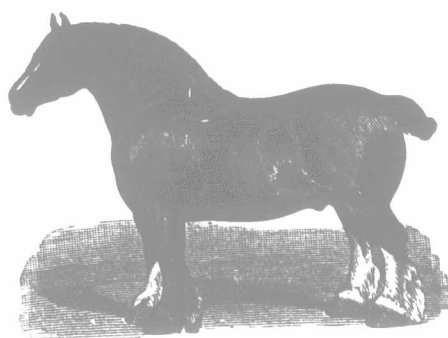
SHIRE HORSE

which from birth are kept in their natural condition, neither forcing nor overfeeding for showing purposes.

Canadian buyers visiting England are invited to call and see what we have to show them, and obtain their stallions and mares direct from the men that breed them.

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

Station—Althorp Park, L. & N.-W. Ry.



Joseph Rodgers & Sons

SHEFFIELD, ENGLAND.

Please see that this EXACT MARK is on each blade.

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



Gossip

The twentieth annual meeting of the Holstein-Friesian Association of America will be held at the Yates Hotel, Syracuse, New York, on Wednesday and Thursday, June 7 and 8, 1905, at 10 o'clock a. m., for the election of officers and the transaction of other business.

Mr. Jas. A. Cochrane, Hillhurst, Que., writes: "Sales of Shorthorn bulls have been quite brisk, though at low prices. The Scottish Beau roan yearling, Beaumont, has gone to Mr. J. H. Crepeau, St. Camille, P. Q.; Mountaineer to Mr. W. Coddington, Melbourne, P. Q., and Lord Mount Royal to the Farmers' Club, Ulverton, P. Q. Recent rains have given pastures a good start, and stock is pretty generally out at grass."

Mr. J. A. Caskey, Madoc, Ont., breeder of Holstein-Friesian cattle, writes: "Sales with me have been good; in fact, the demand has been so keen that I found it impossible to keep those individuals that I wished to. I had six two-year-old heifers that I had intended to retain to fill vacancies in my herd, and when asked for a price on them always put such a figure on as I calculated would leave them in my own stable. However, the senior member of Messrs. Gunn & Son, of Beaverton, Ont., who, by the way, are Shorthorn breeders, but who are also very anxious to build up a small but very choice dairy herd, visited my stables and selected two of my heifers with which to start his dairy herd. These were very fine individuals, and bred along the best dairy lines possible to obtain, both carrying a large per cent. of the blood of the famous cow, De Kal 2nd, whose record is too well known to need repetition, and one of the heifers has for a dam a granddaughter of Pauline Paul, who produced in 365 days 1,153 lbs. 15 1/2 ozs. butter, which is the largest record ever made by any cow of any breed in a corresponding time. After purchasing the heifers, Mr. Gunn informed me that he had been in a number of different stables, and in all of them he could have purchased heifers of same age for less money, but in none had he seen anything to suit him as well, and as he wanted quality the price was no objection. It goes without saying that Mr. Gunn has an excellent foundation upon which to commence to build a dairy herd."

BRIDGES AND STRUCTURAL WORK.—Almost every reader of the "Farmer's Advocate" should be interested in the advertisement of the Hamilton Bridge Works Co., Ltd., Hamilton, Ont., who manufacture highway bridges and manufacture and erect structural steel for mill buildings, warehouses, etc., besides furnishing miscellaneous structural jobs and orders fitted and cut to size, as required by contractors and builders. For a first-class, durable and substantial bridge, nothing can equal steel with concrete abutments. You can get steel bridges in all styles from the Hamilton Bridge Works. Write for particulars, mentioning the "Farmer's Advocate."

QUESTIONS AND ANSWERS.

veterinary.

SWELLING ON STIFLE.

I have a cow with a swelling on the stifle. It is neither hard nor soft, and she is not lame. W. M.

Ans.—From the description given, I cannot say with any degree of certainty what the nature of the enlargement is. It may be a tumor, bursal enlargement, serous or purulent abscess, what is called a porcelaneous deposit, or a temporary swelling of the muscles. As it does not interfere with her usefulness, I would advise you to leave it alone. If lameness appears, blister it with the mixture and in the manner so often recommended and described for blistering in these columns. V.

LEG SWELLS.

One hind leg of my horse swells when he stands idle, and he is lame when he starts. Exercise reduces the swelling, and removes the lameness, but both reappear when he stands over night. C. W.

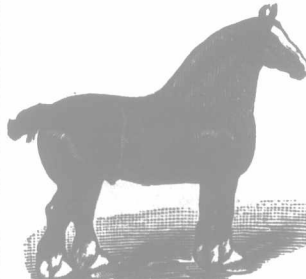
Ans.—Give a purgative of 8 drams aloes and 2 drams ginger, follow up with 1 dram iodide of potash three times daily as long as necessary. Commence giving the potash as soon as purgative ceases, and if his appetite falls, reduce the dose to 40 grains. Hand rub and bandage the leg, and give regular exercise. Give him a run of a month or longer on grass, if you can spare him. V.

THE ARAB OR BARB.

About a year ago some American horsemen, convinced of the superiority of the Arabian or barb horse, imported eight stallions direct from Africa to be used to improve the light horse stock wherever their services would be acceptable. After being kept in the neighborhood of New York for more than twelve months, and having received a lot of publicity through the press, the lot were put on the market recently, and brought from \$40 to \$150. Judging by the price, one would conclude that they were not very good specimens of their breeds.

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.

Clydesdales, Shorthorns and Leicester. Present offering: One choice mare, 4 years old, from imp. sire and dam. Two young bulls (sired by Golden Count 2844). Prices reasonable. WM. MCINTOSH, Prop., Burgoyne P. O. Port Eglon Stn. and Telegraph.

Horse Owners! Use

GOMBAULT'S

Caustic Balsam



A Safe, Speedy, and Positive Cure

The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scurf or bluish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. The Lawrence-Williams Co., Toronto, Ont.

\$100 REWARD



for any case of colic, curb, splints, contracted or knotted cords, recent shoe boils, splints or callous that cannot be permanently and positively cured, if directions are followed, by

TUTTLE'S ELIXIR.

It relieves and cures Spavins, Ring Bone, Cockle Joints, Scratches, Grosse Heel, Founder, Sore Shins and Shoulders, Bruises, Wire Cuts, Colic and Saddle Galls, Pneumonia, Distemper, Chafed Places, etc. Used and endorsed by Adams Express Co., Chicago Fire Department and others. Tuttle's American Worm Powders never fail. Tuttle's Family Elixir stops the pains and aches of mankind instantly. Our 100-page book, "Veterinary Experience" free. Tuttle's Elixir Co., 66 Beverly St., Boston, Mass. Beware of all other Elixirs. Tuttle's is the only genuine. Avoid all blisters; they are only temporary relief. LYMAN, KNOX & SON, AGENTS, Montreal and Toronto, Canada.

Clydesdales, Shorthorns and Cotswolds. Present offerings: 2 Clydesdale stallions, 1 and 2 years old, by MacQueen; one yearling bull by imp. sire; also some yearling rams. For price and particulars write to W. D. PUGH, Clarendon, Ont.

2 Registered Clydesdale Stallions FOR SALE.

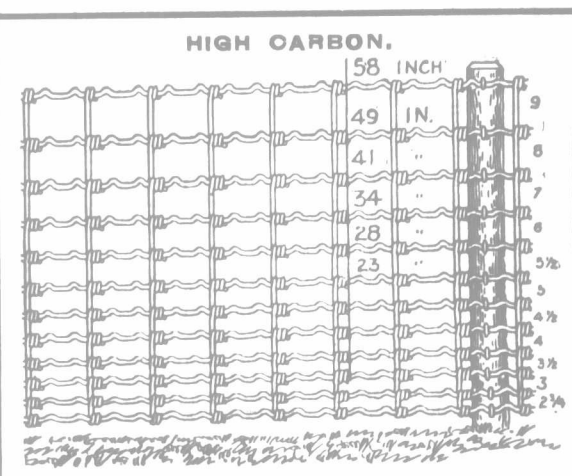
For price and particulars write to R. & O. PALING, Caledonia Stn. & Tel., North Ferris.



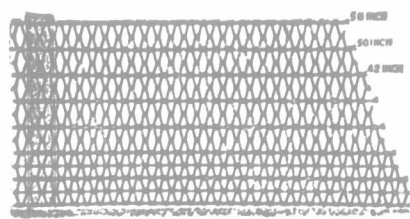
GALVANIZED STEEL WOVEN WIRE FENCE



After all is said and done, more of Our Fences are in use than all other makes of Wire Fences combined. Our Sales double every year.



American Field and Hog Fence.



Ellwood Field and Lawn Fence.

IF YOUR DEALERS DO NOT HANDLE OUR FENCES, WRITE TO US.

The Canadian Steel & Wire Co., Ltd.

WINNIPEG, Man. HAMILTON, Ont.

We call your special attention to our Extra Heavy Fence, all Horizontal Wires No. 9 Gauge. Weighs more per rod, has greater tensile strength than any other Fence on the market



Ring-Bone

So common nearly everybody knows it when he sees it. Lameness, and a bony enlargement just above the hoof, or higher and on the upper pastern bone, sometimes extending nearly around the part, sometimes in front only, or upon one or both sides. Cases like the latter are called Sidebone.

No matter how old the case, how big the lump, how lame the horse, or what other treatment has failed, use

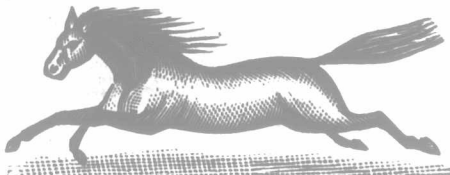
Fleming's Spavin and Ringbone Paste

Use it under our guarantee—money refunded if it fails to make the horse go sound. Often takes off the lump, but we can't promise that. One to three 45-minute applications required and anyone can use it. Get all the particulars before ordering—write for Free Horse Book that tells you what to use for every kind of blemish that horses have.

FLEMING BROS., Chemists,
45 Front Street, West, Toronto, Can.

"THE REPOSITORY"

Burns & Sheppard, Proprietors,



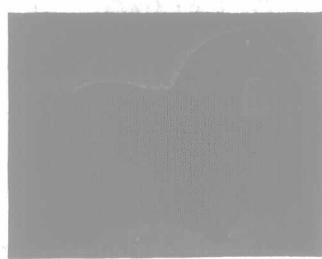
Cor. Simcoe and Nelson Sts., TORONTO.

Auction Sales of Horses, Carriages, Buggies, Harness, etc. every Tuesday and Friday at 11 o'clock.

Special Sales of Thoroughbred Stock conducted. Consignments solicited. Correspondence will receive prompt attention.

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

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.

We have some of our best ones yet. 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.



Seldom See

a big knee like this, but your horse may have a bunch or bruise on his Ankle, Hock, Stifle, Knee or Throat.

ABSORBINE

will clean them off without laying the horse up. No blister, no hair gone. \$2.00 per bottle, delivered. Book 10-B free. ABSORBINE, JR., for man-kind, \$1.00 bottle. Removes Soft Bunches, Cures Varicose Veins, Allays Pain. Genuine mfd. only by

W. F. Young, P.D.F., 73 Monmouth St., Springfield, Mass. Canadian Agents, Lyman, Sons & Co., Montreal.

Clydesdale Stallions and Fillies.

Imported and Canadian-bred. For sale: Two Canadian-bred stallions, rising 3 years, from imp. sire and dams. Also 840 BETHORN Cows and Heifers for sale. Reasonable prices. For particulars write to

JAS. W. INNES, Cityview Farm, Woodstock, Ont.

FOR SALE: The imported

Clydesdale Stallion

Uam Var [2129] (9457).

Apply to DAVIS & GRAHAM, Schomberg, Ont.

Canadian-bred Clydesdales for sale. One stallion rising 3 years, one stallion rising 2 years. For further particulars, apply to

GEO. BOTHAM, Bradford, Ont.

At stud Abayan Kohellao, Arab Stallion High caste, chestnut height, 14.2 Suitable for breeding high-class light horses, polo ponies, etc. For particulars, apply

GAMERON & HARVEY, Cobourg, Ont.

QUESTIONS AND ANSWERS Veterinary.

CHRONIC COUGH AND ECZEMA

Horse coughs and bites and rubs himself as though he had some skin disease. Would bots cause the biting? A. D. P.

Ans.—For the chronic cough, give a ball every morning composed of 2 drams solid extract of belladonna, 1 1/2 drams powdered opium, 1 dram camphor, and 20 grains digitalis, with sufficient treacle to make plastic. For the eczema, clip him, and if he has not shed his coat, wash thoroughly with warm, strong soft soap suds, applied with a scrubbing brush, and then dress twice daily with corrosive sublimate, 40 grains; water, 1 quart. V.

UTERINE DISCHARGE.

Aged mare had inflammation of the womb four years ago, and this was followed by leucorrhoea, but there has been no sign of this disease for two years. There is now a discharge of blood when she lies down, but at no other time. J. S.

Ans.—The blood evidently comes from the womb, else it would be noticed during urination. Inject the womb once daily with 1 quart water at 100 degrees Fahr., in which is dissolved 1/2 ounce powdered alum and 1/2 ounce carbolic acid. This can be introduced into the womb with a rubber syringe with a tube sufficiently long to reach and pass through the neck of the womb. Give, internally, twice daily 1 ounce tincture of iron in a pint of cold water as a drench, until blood ceases to pass. If she becomes constipated, give 1 pint raw linseed oil. V.

Miscellaneous.

RAISING ROOTS WITHOUT A CELLAR—WHITE CAP YELLOW DENT.

1. Will it pay to raise roots for cattle, if they have to be pitted? 2. Is White Cap Yellow Dent a good fodder corn, and will it ripen in the average season? A. D. P. Elgin Co., Ont.

Ans.—1. Yes; pitting is not expensive, and if properly done the roots will keep quite as well as in a cellar.

2. White Cap Yellow Dent is a comparatively early dent variety, and we would expect it to mature fairly well in your section. It is not, of course, so heavy a yielder as some of the later kinds, such as Learning and Wisconsin Earliest White Dent.

STEAM PLOWING.

Inform us as to the cost and capacity of steam plows for work in the Northwest. F. F. D. Middlesex.

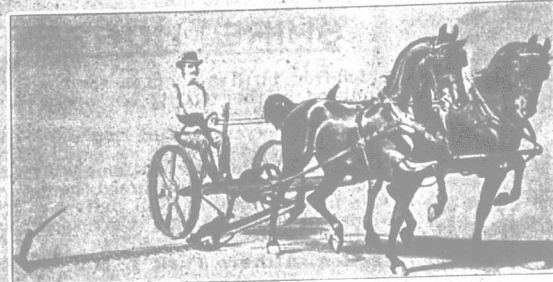
Ans.—A Manitoba farmer reports that anything less than a 25-horse power is too small for best results. He now uses a 30-horse power, which is none too large. It travels from 2 1/2 to 3 miles per hour, and is equal in hauling power to 30 horses. This comparison, as a rule, holds good, whatever the rating of the engine (if in good order), whether 20, 25 or 30 horse power. For ten hours' work at full capacity it will take about 100 lbs. of Galt mine coal per horse-power. On average ground, where plows will clean, it will, in ten hours, plow one acre per horse-power, and will use about two barrels of water per acre; oil about two quarts per day. It needs four hands to operate this outfit: a plowman and engineer, one to steer and one to haul water and coal. Two miles per hour, including stops for water, etc., is good time, so in ten hours we can go 20 miles, and I may ordinarily expect to plow an acre per mile with my engine. In breaking I haul eight 12-inch plows. They cut a little more, and do an acre per mile. At stubble plowing I use disk plows, haul twelve furrows and do 1 1/2 acres per mile, with them 20 miles does 25 acres. I use a small team to steer with, as I find work can be better done.

The grouch always feels he is over-worked and underpaid, and that if only given a chance to let his abilities shine forth he would dazzle a bewildered world.

The workers and winners generally belong to the same class, there is little won that is worth keeping that does not come through work.

FOUR GREAT HAYMAKERS!

THE BEST LABOR-SAVING IMPLEMENTS FOR THE FARM.

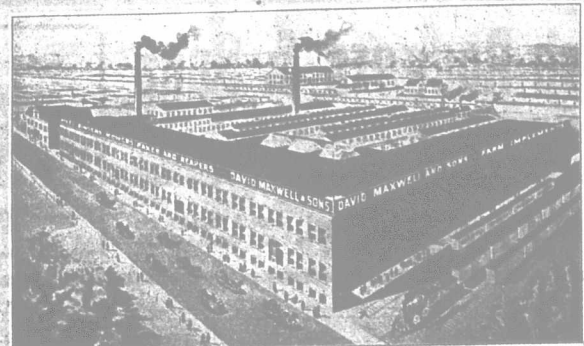


Maxwell Mower.



Maxwell All-Steel Tedder.

We Make a Full Line of Haying and Harvesting Machines.

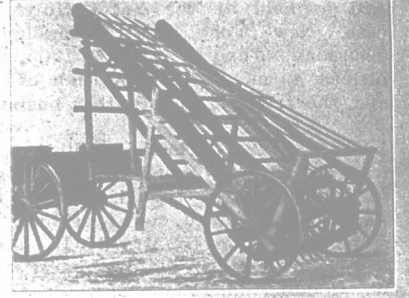


Where Maxwell Machines Are Built.

Also a Complete Line of Stock Raisers Implements.



Maxwell Side-Delivery Rake.



Maxwell Hay Loader.

If no agent in your locality, write direct to us.

DAVID MAXWELL & SONS

ST. MARYS, ONT., CANADA.

COMMON BLISTERS

and liquid caustics may ruin your horse—Take care in time and avoid them. Apply

STEVENS' OINTMENT

as used in the Royal Stables, for curing

Splint, Spavin, Ringbone,

and all enlargements in horses and cattle. 75c. small, \$1.50 large box, at Chemists, or direct from

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



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 of high-class Percheron, Belgian and German Coach Stallions.

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

QUESTIONS AND ANSWERS.
Miscellaneous.

BARON'S PRIDE'S BREEDING.

We hear a great deal about Baron's Pride as a Clydesdale stallion in Scotland at the present time. Could you give his breeding for about three generations in the "Farmer's Advocate"?

G. L. P.

Ans.—Baron's Pride (9122), foaled May, 1890, sire Sir Everard (5353), by Top Gallant (1850), dam Forest Queen (7283), by Springhill Darnley (2429), by Darnley (222), grandam Forest Mallie (4740), by Pretender (599), great-grandam Mall, by Clydesdale Tom (177), Vol. 1.

MORTGAGOR CUTTING WOOD.

If A sells his farm to B, can B cut the wood off the place without A's consent, A holding a mortgage on the place within a few hundred dollars of its value?

SUBSCRIBER.

Ont.

Ans.—Yes, unless A notifies him not to do so. But he is entitled to give such notice, and, if same is not complied with, to proceed in the High Court for an injunction to compel B to refrain from wood-cutting, except to the extent that it may be necessary for his own use for fuel and otherwise upon the premises.

A HORSE SALE.

A sold a horse to B for \$150. B paid \$5 down, and was to take him the first Monday or Tuesday of the first week in April. A notified B in writing, giving him one week to pay for the horse, or his claim would be cancelled. B never came near, but sent word with a neighbor that he was going to take the horse.

1. How long will A have to keep him?
2. Can A legally sell him without B having any claim on him?
3. What steps would A have to take to make B take him? B is not worth anything.

ONT.

Ans.—1. A was only obliged to keep the horse a reasonable time after the date mentioned, and we consider he has already amply done so.

2. No; but A is entitled to notify B in writing that unless by a date to be stated in the notice he pays the balance due on the animal and takes him away, he, A, will proceed to sell him by public auction and charge B with any difference between the amount realized at such sale and the amount of the price at which B bought and expenses of keeping and selling.

3. We think that A is not in a position to legally compel B to take the animal.

ONIONS POULTRY-HOUSE FLOOR.

1. I sowed little black onion seed last spring, but the onions were green, and seemed to be growing in the fall when I took them up. Would they have been all right left in the ground over winter to grow this year?

2. I have seen onions in the stores, 4 or 5 inches in diameter. How are they grown, or what are they grown from?

3. Would the salt in coal cinders hurt hens, if used for a floor, or would cement make a better floor? I have a gravel floor, but they scratch it up with the straw.

Ans.—1. Your onions probably would not have done much this year, although there is a species of "perennial" onion which grows up year after year, and is valued for use in early spring. Onion seed should be sown very early, in order to leave plenty of time for maturing.

2. The onions to which you refer are probably the so-called "Spanish" variety. Our Canadian seed-growers do not catalogue them, but have other large varieties listed which are recommended for our climate. Among these are Giant Prize-Taker, and the foreign varieties, Mammoth Pompeii, Mammoth Silver King, Giant Brown Rocca, Giant White Italian Tripoli. These are all very mild in flavor, and are probably often sold as Spanish onions.

3. We see no reason why the salt would injure the hens; especially if the floor were kept covered with litter. Having had no experience with the salt and cinder flooring alluded to, we are unable to compare it with cement, but if, as you claim in your article elsewhere, it is satisfactory for cattle floor, its cheapness should commend it in the poultry-house.



Gin Pills

Cure that Pain in the Back



That sharp shooting pain—that dull, steady ache—means something wrong with the kidneys. Pain is nature's danger signal. Where there is pain in the back or through the hips, there is an unnatural condition, or disease of the kidneys.

GIN PILLS cure that pain in the back, by curing the kidneys.

They neutralize the acid urine—stop uric acid from poisoning the blood and inflaming the nerves—soothe and quiet the pain—make urination natural and regular—sharpen the appetite—make one sleep sound—build up the whole system.

GIN PILLS have saved hundreds from chronic kidney trouble and dreaded Bright's Disease.

If you have any kidney trouble, or suspect that the kidneys are not doing their work properly—and especially if you suffer with pain in the back—don't hesitate to get GIN PILLS. They cure or your money back.

At all dealers, 50c a box, or 6 for \$2.50.

SEND POST CARD FOR FREE SAMPLE BOX.

BOLE DRUG CO., Dept. V Winnipeg, Man.

Steel Roofing and Siding, \$2.00 per 100 Sq. Ft.

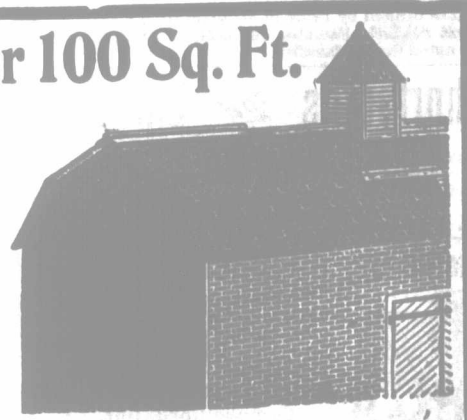
Painted red on both sides. Most durable and economical covering for Roofing or Siding, for Residences, Houses, Barns, Elevators, Stores, Churches, Poultry Houses, Cribbs, etc. Easier to lay and will last longer than any other covering. Cheaper than wood shingles or slate. No experience necessary. A hammer and snips are the only tools required. It is semi-hardened high grade steel. Brick or Stone Siding at \$2.00 per 100 Square Feet. Pedlar's Patent Steel Shingles at \$2.50 per 100 Square Feet. Also Corrugated Iron, Painted or Galvanized, in sheets 96 inches long. Beaded and Embossed Ceilings. Crimped Roofing. 2000 designs of Roofing, Siding and Ceilings in all grades. Thousands of buildings through the Dominion covered with our Sheet Metal Goods making them

FIRE, WATER AND LIGHTNING PROOF.

Send in your order for as many squares (10 x 10 feet) as you require to cover your new or old building. The very best roofing for this climate. We can supply Eave Trough, all sizes, Corrugated or Plain Round, Conductor Pipes, Shoes, Elbows, Spikes, Tubes. All goods shipped day after order is received. We are the largest concern of the kind under the British Flag. Established 1861. Capital Invested \$150,000.00.

PEDLAR PEOPLE, OSHAWA, ONTARIO, CANADA.

Eastern Warehouse—767 Craig St., Montreal, Quebec.



HURON CENTRAL STOCK FARM OF ABERDEEN-ANGUS

Our present offering is seven young bulls, 8 to 18 months old. All sired by the champion bull Goderich Chief 3743. All stock registered in the American Herdbook. Also offering the young coach stallion Godolier, winner of 1st at London this year.

E. BUTT & SONS, Clinton, Ont.

THE SUNNYSIDE HEREFORDS

Imp. Onward in service. Eight choice bulls of serviceable age; this includes 4 two-year-olds, all of the blocky, heavy type, at prices that will move them. We can yet spare some cows and heifers.

O'NEIL BROS., Southgate Ont. Ilderton Sta., L. H. & B.; Lucan Sta., G.T.R.

GLENGORE STOCK FARM. ABERDEEN-ANGUS

Present offerings: Choice young bulls, ready for service; also heifers, all ages. For particulars, write to GEO. DAVIS, Alton P. O., Erin Sta., C. P. R.

3 SCOTCH-TOPPED Shorthorn Bulls

Must be sold immediately. For particulars write or come and see WM. D. DYER, Columbus, Ont. Stations: Brooklin, G.T.R.; Myrtle, C. P. R.

Queenston Heights Shorthorns

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

Write for particulars.

HUDSON USHER, Queenston, Ont.

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.

SHORTHORNS and CLYDESDALES

Spicy Count (Imp.), 5 thick, fleshy bulls, 12 months old; a few heifers and 6 splendid Clydesdales; 3 sires registered. All young.

JAS. McARTHUR

Pine Grove Stock Farm. GORLE, ONT.

Wm. Grainger & Son

Hawthorne Herd of Deep-milking Shorthorns.

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

SPRING VALLEY SHORTHORNS

Good bulls at reasonable prices, out of good Scotch cows, and by such bulls as Bapton Chancellor (Imp.), Scottish Beau (Imp.), Nonpareil Archer (Imp.), Clipper Hero, etc. For further particulars, apply to

KYLE BROS., Ayr, Ont.

1864 - HILLHURST FARM - 1905

Five registered

SHORTHORN BULLS

ready for service; also bull calves, Scotch-topped, from good milking families, for sale at low prices. Write for catalogue and particulars. Inspection invited.

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

Present Offering of SHORTHORNS and SHROPSHIRE

(Imp.) Scotland's Pride - 38098 - (79907), 5 years old, a Crickshank Clipper, by the great sire, Star of Morning.

One junior yearling show bull in show form, a good one.

4 bulls, from 14 to 16 months old, from imp. sires and imp. or pure Scotch dams.

One senior yearling show heifer, a winner, from imp. sire and dam.

Imp. and home-bred cows and heifers, all ages.

25 yearling Shropshire rams and 20 yearling ewes.

Carloads of ranch bulls furnished on short notice. For catalogue and prices, write

W. G. PETTIT & SONS, Freeman, Ont. Burlington Jet. Station, Telegraph, Telephone.

THREE IMPORTED Shorthorn Bulls

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

Robert Miller, Stratford, Ont. Representative in America of Alfred Mansell & Co., Shrewsbury, England.

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

ONE IMPORTED RED YEARLING BULL



Sired by Spicy King, and of the Broadhooks family, bred by Aderson, of Saphock, Old Meldrum. Also three first-class home-bred bulls of choice breeding. Imported cows and heifers with calves at moderate prices.

H. J. DAVIS, Woodstock, Ont.
Breeder and Importer of Shorthorns and Yorkshires

Scotch Shorthorns

AT **HOLLYMOUNT STOCK FARM**

Young bulls and heifers from imported sires and dams for sale at reasonable prices.

For particulars write to **W. J. THOMPSON, o Mitchell, Ont.**

Elm Grove Shorthorns

We have for sale one imported bull, Scottish Rex, No. (56107), sure and active. Also young bulls and heifers. For prices and particulars address **W. G. SANDERS & SON, Box 1133, o St. Thomas, Ont.**

CHAS. RANKIN, WYEBRIDGE, ONT.

SHORTHORN CATTLE and OXFORD DOWN SHEEP.

Head bred by Fyfe of Botha (imp.), sire (imp.) Chief Ruler = 45165 =, dam (imp.) Missie 159th = 31154 =; young stock, either sex. **E. C. ATTRILL, GODERICH, ONTARIO.**

Shorthorns and Lincolns

12 young bulls, 6 heifers, and some young cows of choice breeding. Prices very reasonable. **W. H. TAYLOR & SON, Parkhill, Ont.**

Shorthorns, Cotswolds, Berkshires

FOR SALE: Bull and heifer calves, seven to fifteen months. Also yearling and two-year-old heifers and young cows. **CHAS. E. BONNYCASTLE, Campbellford, Ont., P.O. and Station.**

Scotch Shorthorns

YOUNG BULLS and HEIFERS sired by Marengo's Heydon Duke, imp. = 36083 =, for sale reasonable. Come and see them or write to **W. J. SHEAN & CO., Rosevale Stock Farm, o Owen Sound, Ont.**

R. & S. NICHOLSON

SCOTCH 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.**

FLETCHER SHORTHORNS

Our herd of breeding cows, both imported and home-bred, are of the most fashionable Scotch families. Among the really good ones which have been used are Spicy Robin 28220, winner of 1st prize at Dominion Exhibition, Toronto, and Joy of Morning (imp.) 32070, winning 1st prize at same exhibition, 1914. Stock of either sex for sale. **GEORGE D. FLETCHER, Binkham P. O., Ont. Main Shipping Station, C. P. R.**

BELMAR PARC SHORTHORNS

We offer six splendid young Scotch bulls and a really choice lot of females at prices that will pay you. Address: **PETER WHITE, JR., PEMBROKE, ONT.**

SHORTHORNS

PRESENT OFFERINGS:—Roan Robin 28575, a Watt bull; Prince Charley 30412, a Russell bull. Also four choice young bulls. For price and particulars write **W. H. WALLACE, Woodland Farm, o Mt. Forest, Ont.**

Sharples Tubular SEPARATORS

Only Bowl With Proper Bearing

All "bucket bowl" separators have incorrect bearings. The bowl is set upon the spindle and held upright by rigid bearings. Such bowls are top heavy, inclined to wobble, sure to bind.

Tubular bowls, only, are properly supported, being suspended from and turning upon a single ball bearing. A breath almost turns them. They cannot wobble or bind. Catalog L-193 tells all about them.

Canadian Transfer Points: Winnipeg, Toronto, Quebec, St. John, N. B., Calgary, Alberta. Address: **The Sharples Co., Chicago, Ill. P. M. Sharples, West Chester, Pa.**

MAPLE HILL STOCK FARM SCOTCH SHORTHORNS

of the Brawith Bud, Cecelia, Mayflower, Fashion and Daisy families. Herd headed by the grandly-bred Lavender bull, Wanderer's Star = 48685 =, by Wanderer's Leaf (imp.). Special offering: A few choice young bulls. **WM. E. ELLIOTT & SONS, Box 426, o Guelph, Ont.**

Ridgewood Stock Farm SCOTCH SHORTHORNS.

Present offerings: Blythesome Ruler = 52236 =, sire (imp.) Chief Ruler = 45165 =, dam (imp.) Missie 159th = 31154 =; young stock, either sex. **E. C. ATTRILL, GODERICH, ONTARIO.**

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 bull, imp. Chief of Stars (7215), 145417, = 32076 =, Lovely Prince = 50757 =. Some choice yearling heifers for sale. Correspondence solicited. Visitors welcome. Telephone in house.

Belvoir Stock Farm

SHORTHORN BULLS, various ages; imported and home-bred, by imp. Gay Lothario, a Cruickshank Lavender. **CLYDE 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.**

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.

MOUNTAIN VIEW SHORTHORNS

Imported and home-bred, male and female, prize and sweepstakes winners, various ages. Anything for sale. **S. J. McKNIGHT, Epping P. O., Thornbury Station.**

THOS. MERCER, Box 33, Markdale, Ont.

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

Shorthorns and Yorkshires

Present offerings: Young stock, either sex. For price and description write to **W. J. MITTON, Mapleton Park Farm, THAMESVILLE, ONT.**

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.**

GOSSIP.

"Judge not," but jump in and be full of the idea that it takes work and worth and concentration and the ability to learn from those whom superficial persons think are "not much" to win in life's race.—[Live-stock World.

SELECTION AND DEVELOPMENT IN BREEDING.

A writer of some note upon horse subjects recently contributed the following to the press: "The late Lord Fal-mouth was undoubtedly the most successful breeder of Thoroughbreds the world ever saw, for he produced more Derby and Oak winners than any of his contemporaries. His plan was never to use a mare for breeding purposes that was not possessed of stake form, and more than once he refrained from starting a two-year-old that he was positive could win a stake, but instead relegated her to the stud. He tried his fillies under the very highest test of a race horse, which is a trial with a horse of known ability, and none but those that displayed real stake capacity were used by him. He never raced his mares to excess, and after many years as a breeder he had succeeded in building up from generation to generation families of Thoroughbreds in which nearly, if not all, were not only possessed of great class, but were also as nearly perfect individually as possible."

MEAT INSPECTION AT CHICAGO.

The United States Government, through the bureau of animal industry of the Department of Agriculture, has set up a system of Government inspection to protect the people from impure meat. This force in the Chicago Stock-yards consists of 170 inspectors, about fifty of whom are veterinarians, and in addition there are about eighty women microscopists, whose duty it is to search exclusively for trichinae in pork, through the examination of specimens from carcasses intended solely for export to Germany, France, Austria and Denmark. This Government inspection is not obligatory upon the meat packers, but none of them can do business without it, and therefore all have requested it, and each, in fact, is practically compelled to request the Government to furnish this inspection service.

The special inspection of hogs for trichinae is required solely because the four European countries which have been mentioned will not permit importation of pork from this country unless there is a Government certificate with each importation to the effect that the meat is free from this form of disease. One reason why the Governments of these countries are so particular as to the trichinae is due to the fact that large quantities of raw meat are eaten by their peoples. The people of the United States and Great Britain, on the other hand, rarely eat raw meat. A boiling temperature will kill trichinae, and, therefore, it has been held that inasmuch as English-speaking peoples almost never eat raw pork, the presence of these parasites in the meat that is consumed by this country and Great Britain is not a serious menace to health. And to some extent this would seem to be borne out by the fact that cases of trichinosis are very rare, especially in the United States. There has been only one recorded death from trichinosis in Chicago, where large quantities of pork are consumed by the foreign element, especially in the last seven years.

The Government inspection of animals in general consists of two parts—the ante-mortem and post-mortem. The ante-mortem inspection is made when the animals are weighed on the scale, and the post-mortem inspection is made immediately after the animals are killed and as they are passed along to be dressed. A trained eye, of course, can detect many diseases as animals pass over the scales. Post-mortem examinations consist of feeling of the various glands of the throat and an inspection of the conditions of the lungs and the diaphragm and internal organs generally. These inspectors sit or stand close to the killing stations, and not an animal can pass their scrutiny unless they are willing to have it do so. Whenever an animal is found to be tainted it is wired with a condemned tag and segregated at once.

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.

TROUT CREEK SHORTHORNS

Bulls in service: Gold Cup (imp.), bred by W. Duthie, and Ardlethen Royal (imp.), a Marr Princess Royal

James Smith, Manager, o W. D. FLATT, Hamilton, Ont.

SCOTCH SHORTHORNS

85 head in our herd.

The choice breeding bull, Imp. Green-gill 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.

SCOTCH-TOPPED SHORTHORNS

Nine young bulls ready for service; also several heifers by Scottish Baron 40421 (imp.), for sale reasonable. Come soon and get first choice. **H. GOLDING & SONS, Thomasford P. O., Stations, Thamesford, C.P.R.; Ingersoll, G.T.R.**

YOUNG SHORTHORNS

For sale, either grand Golden Drop show bull, Kinellar Stamp (imp.). Inquiries cheerfully answered. **SOLOMON SHANTZ, Hayville P. O., Plum Grove Stock Farm, o Baden Sta.**

Shorthorn Bull—Provoost = 37865 =, 4 years old, in prime condition.

sure and active; a grand stock bull. Will sell or exchange for another. **RICHARD WILKIN, Springfield Stock Farm, o Harriston, Ont.**

J. A. Lattimer, Box 16, Woodstock, Ont.

High-class SCOTCH SHORTHORNS

Choice females for sale at all times. Inspection of our herd is invited.

High-class SHORTHORN CATTLE AND OXFORD CLASS DOWN SHEEP

Present offerings: Young stock, either sex. For prices and particulars write to **JAS. TOLTON & SON, Walkerton, Ont.**

LAKEVIEW SHORTHORNS.

Spicy 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. JEFFES & SON, Bond Head P. O., Bradford and Beeton Stns., G. T. R.**

Shorthorns, Lincolns and Berkshires

Young stock of either sex for sale. Reasonable. For particulars apply to **W. H. Ford, Maple Shade Farm, Dutton, Ont.**

SHORTHORNS

Choice young bulls for sale, ready for service. For particulars write to **JOHN ELDEK, Hensall Stn. & P. O., Ont.**

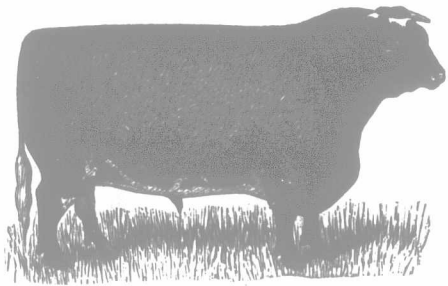
WILLOW BANK STOCK FARM

Established 1855. Large and old-established herd of **SHORT-HORNS**. Good milking qualities. Splendid offering of either sex. Scotch and Scotch-topped. **JAMES DOUGLAS, Caledonia, 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.**

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



Arthur Johnston GREENWOOD, ONT.

Offers the following:

- 5 imp. bulls, all registered in E. H. B.
7 high-class home-bred bulls, all by imp. sires, and from imp. or pure Scotch cows.
7 imp. cows and heifers.
7 very fine heifers of our own breeding, by imp. sires, and mostly from imp. dams.

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 CLANUX, 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, Brooklin P.O., Ont.

Spring Grove Stock Farm SHORTHORN CATTLE & LINCOLN SHEEP.

First herd prize and sweepstakes, Toronto Exhibition, 3 years in succession. Herd headed by the imported Dutch-bred bull, Roy Morning, and White Hall Register.

T. E. ROBSON, ILBERTON, ONT.

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.

PINE GROVE STOCK FARM ROKLAND, ONTARIO, CANADA.

Breeders of choice

SCOTCH SHORTHORNS and SHROPSHIRE.

W. C. EDWARDS & CO., Ltd., Props. JOSEPH W. BARNET, Manager.

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 Leicesters.

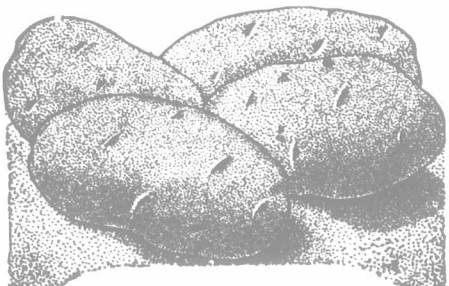
A. W. SMITH, Maple Lodge P.O., Ont.

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 Sta., Hillsdale Telegraph Office.

SHORTHORNS FOR SALE

Either sex, at reasonable prices. J. K. HUX, o Rodney P. O. and 8th.



GOOD POTATOES BRING FANCY PRICES

To grow a large crop of good potatoes, the soil must contain plenty of Potash. Potatoes, melons, cabbage, turnips, lettuce—in fact, all vegetables remove large quantities of Potash from the soil. Supply

Potash

liberally by the use of fertilizers containing not less than 10 per cent. actual Potash. Better and more profitable yields are sure to follow.

Our pamphlets are not advertising circulars booming special fertilizers, but contain valuable information to farmers. Sent free for the asking. Write now.

GERMAN KALI WORKS 93 Nassau Street, New York.

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.

AYRSHIRES Imported bulls from the best milking families in Scotland, head of 70 head. Write for prices, etc., to T. J. T. COLE, Bowmanville Sta., G. T. R. o Tyrone P. O.

Springhill Farm Ayrshires

FOR SALE: One young bull fit for service; also a few bull calves and females, all ages.

Robt. Hunter & Sons, Maxville, Ont. Maxville, C. A. R., and Apple Hill, C. P. R.

AYRSHIRES

Do you want to get a grand young bull or heifer, with breeding and individuality as good as the best? If so, write to

W. W. BALLANTYNE, Stratford Stn. and P. O., Ontario

Springburn Stock Farm, North Williamsburg, Ont., H. J. Whitteker & Sons, Props.

We are now offering 10 Ayrshire Bulls, from 6 to 22 months old. Also eggs for hatching from our Buff Orpington fowls at \$1 per 13.

HIGH-CLASS AYRSHIRE CATTLE

For Sale: Both sexes; bulls and heifer calves from 2 to 9 months old; cows and heifers all ages. Famous prize-winners bred from this herd, including Tom Brown and White Floss, sweepstakes prize-winners at Chicago. DAVID BERNING & SON, "Glenhurst," o Williamsstown, Ont.

SONNYSIDE 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. Price right. Address: JOHN W. LOGAN, Allan's Corners, Que. o

MAPLE CLIFF DAIRY AND STOCK FARM

Breeders of Clydesdale Horses, Ayrshire Cattle, Berkshire and Tamworth Pigs. Young stock for sale at all times. R. BIRD & CO., o Hintonburg, Ont. Farm adjoins Central Experimental Farm.

MEADOWSIDE FARM

Ayrshire Cattle, Shropshire Sheep, Berkshire Pigs, R. P. Rooms and R. O'Connell. Eggs for hatching \$1 per doz. Young stock for sale. A. E. FULL, o Carleton Place, Ont.

Nether Lea Ayrshires

Young stock of either sex, from deep-milking families, for sale. Two choicely-bred imp. bulls at head of herd. Correspondence and inspection invited. T. D. McCALLUM, Danville, Que.

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 collic pups. W. W. EVERITT, Dun-edin Park Farm Box 552, Chatham, Ont. o

Brampton Jersey Herd

We have now for immediate sale ten Bulls, from 6 to 18 months old, descended from St. Lambert or imported stock; also females of all ages. In order to reduce our stock, we are making a special offer. For full particulars, address: B. H. BULL & SON, o Brampton, Ont. Phone 68.

GOSSEL

The Dominion Government have given a grant for the Dominion Exhibition at Halifax, N. S., in 1906.

The famous Chartley herd of white cattle has just been purchased, says the Times, by Mr. J. R. B. Masefield, on behalf of the Duke of Bedford, who has practically come forward and saved the herd from leaving the country or falling into the hands of the taxidermist. When Chartley Castle and estates were sold by Earl Ferrer, the white herd, the descent of which can be traced back to the time of Henry III., came into the market, but the offers made for the animals were so small that they could not be entertained.

The April issue of the American Guernsey Herd Register and Breeders' Journal, published at Peterboro, N. H., contains pedigrees of bulls numbering from 9,662 to 9,827, and females from 17,952 to 18,228, together with Advanced Registry records of cows numbering from 225 to 272, also report of annual meeting of Western Guernsey Breeders' Association held at Madison, Wis., Feb. 1st, 1905, an article from the English Live-stock Journal Almanac on doings of the breed in Britain, an essay on founding of Guernsey families, by Dr. M. B. Wood, and a number of excellent portraits of noted dairy cows.

Mr. Robert Miller, Stouffville, Ont., reports the following recent sales of Shorthorns and ponies: To Mr. John Forgie, Claremont, Ont., the roan five-year-old imported cow, Rosie Dorothy, sired by the Bruce Augusta bull, Justice (70698), dam Lady Dorothy 44th, by the Victoria bull, Scottish Victor (69557). Rosie Dorothy won first prize at a good show in Aberdeenshire in 1903. Her bull calf now just past twelve months is as promising as any young bull I have imported, and she is nearly due to Cronje 2nd, a Marr Clara of the finest breeding, and of great quality, now at the head of Guy Bell's herd, near Brampton. I also shipped to-day two beautiful ponies, sired by a Hackney stallion, and from imported Welsh pony mares. These ponies are 13 1/2 hands high, and have wonderful action and stamina. They are a beautiful matched team, and go to Mr. Chas. E. Bunn, Peoria, Ill., the president of American Shetland Pony Club.

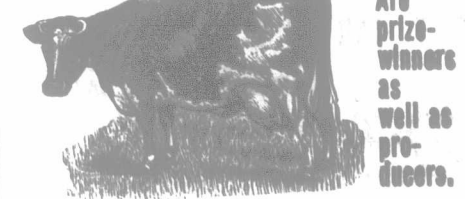
One of the best known stock men of Bruce County, Ont., is Wm. McIntosh, of Burgoyne, who has been breeding Shorthorns, Clydesdales and Leicesters for several years. His herd of Shorthorns is small in numbers, but large in Scotch breeding. The heifers, which were good enough to win at the local shows last fall, are by Golden Count =26440=, a 2,500-lb. bull, with quality to match. His sire was Golden Crown (imp.) =17098= (64088), dam Imp. Roan Betty =8327=. Golden Count was acknowledged to be one of the best sires that ever reached the northern part of Ontario. Mr. McIntosh recently replaced him with Mysie Captain =53226=, a roan, calved October, 1903, sire Village Captain 39914, by Knuckle Duster (imp.), dam Bellwood Mysie =48849=, tracing to Imp. Mysie 37th, bred by Amos Cruickshank, Sittyton. This young sire is of more than average quality, being well filled up in every point. Although he did not get within the money at Toronto last year, we think his chances would be good the coming fall, if he continues to improve as he has. Mr. McIntosh does not expect to show, but as he has his heifers bred now, he will sell this bull to anyone wishing to show. Among the Clydesdales there is one fine four-year-old bay mare that her owner will part with at good value to the purchaser, viz., Floss of Burgoyne [3079], sire Crystal City (imp.) [2519], dam Tifty's Annie (imp.) [1212]. She is a mare with a good set of legs and feet, and a nice, smooth top, will weigh between 1,500 and 1,600 lbs., and is said to have splendid action; in short, we would consider her just the kind of mare that many are anxiously looking for. The Leicester flock is scarcely as large as usual, but quite up to the average in quality. There will be between 15 and 20 lambs and yearling rams for sale a little later in the season, and we would say to sheep owners don't put off getting a stock ram until the American buyers get all the choice ones.

We want you to remember that HOLSTEIN COWS

owned by me (formerly at Brookbank Stock Farm, Currie's) won all sorts of honors in milk tests at Toronto, Ottawa and Guelph (6 years), and among many other prizes in the show-ring, including sweepstakes at Toronto and Pan-American in competition with the best in the world. Our herd is always improving. We have now 5 cows whose official test average 22.4 lbs. butter in 7 days, 10 cows whose official test average 20.4 lbs. butter in 7 days, 15 (3 yrs. and up) whose official test average 19.6 lbs. butter in 7 days, 10 (3 and 4 yrs.) whose official test average 17 lbs. butter in 7 days, 10 heifers (average age 26 mos.) whose official test average 11 lbs. butter in 7 days. That is our idea of a dairy herd, and the kind of stock I handle. A few good young bulls, 1 to 13 mos., for sale.

GEO. BIOR, Annandale Stock Farm, Tilsonburg, Ont.

MERTON LODGE HOLSTEINS



Are prize-winners as well as producers.

Forty head to select from. Such great sire as Sir Hector De Kol at head of herd. Present offerings: Young bulls, cows and heifers, all ages. Am looking orders for our entire crop of spring calves with gilt-edge pedigrees. We quote prices delivered at your station. Safe arrival guaranteed.

H. E. GEORGE, ORAMPYON, ONT.

Maple Glen Holsteins—Special offering: Two bulls, fit for service, one from a 70-lb. a-day dam. A choice pair of bulls, 9 months old, one from the test cow Juanita Sylvia, full sister of Carmens. The other from a first-prize Toronto winner. Also a few females. C. J. GILROY & SON, Glen Bell, Ont.

High-class Registered Holsteins. Young stock of either sex for sale. Prices reasonable. Apply to: THOS. CARLAW & SON, Campbellford Stn. o Warkworth P. O.

Hilton Stock Farm Holsteins, Cotswolds and Tamworths. Present offering: One young bull. A few young boars. One good one fit for service. At very reasonable prices if taken soon. For particulars write to R. O. MORROW, Hilton P.O., Brighton Tel. & Stn.

IMPERIAL STOCK FARM HOLSTEINS.

For Sale: Four bull calves, 5 months old, whose sires' three nearest dams average 21.79 lbs. of butter in 7 days. Also young bulls by the sire of first-prize herd at London.

W. H. SIMMONS, New Durham, Ont.

Woodbine Holsteins

Herd headed by Sir Meethilde Foch, whose four nearest ancestors average 25 lbs. of butter in 7 days in official tests. Cows, heifers and young bulls, sired by Homestead Albino Paul DeKol, a grandson of DeKol 2nd Paul DeKol, sire of 41 A. R. O. daughters, the greatest sire of the breed. Write for extended pedigrees and prices.

A. KENNEDY, 6ND; J. A. CASKEY Madoc, Ontario.

BULL CALVES

FOR SALE, sired by Count Echo De Kol, a sire of Record of Merit cows, and out of excellent dams.

Lyndale Holsteins

Over 50 head to choose from. A number of young cows and heifers for sale. Six young bulls from 8 to 11 months old.

BROWN BROS., Lyn, Ont.

Maple Grove Holsteins—In official tests they stand 1st for cow, 1st for 2-year-old, 1st 2-year-old and 1st under 1 years old. Special inducements are offered in high-class bulls to quick purchasers. For particulars address: H. BOLEBET, Chaset, Ont.

MAPLE PARK FARM HOLSTEINS.

Two choice bull calves for sale, sire Homestead Albino Paul De Kol. Also two 1-year-old heifers with 70-lb. dams.

S. MAOKLIN, Prop., Streetsville, Ont.

BARREN COW CURE

makes any animal under 10 years old breed, or refund money. Given in feed twice a day. Particulars from L. F. SELLECK, Morrisburg, Ont.



PAMPHLET FREE. MOORE BROS., V.S., ALBANY, N.Y.

COOPER SHEEP DIP

Standard of the World
for 60 years. Used on 250 millions annually. One dipping kills Ticks, Lice and Nits. No smell. Keeps flock clean a long time. Increases growth of wool. Dipping Tanks at cost. Send for Pamphlet to Chicago. If local druggist cannot supply send \$1.75 for \$2 (100 gal.) pkt. to

EVANS & SONS, Ltd., Montreal and Toronto
W. COOPER & NEPHEWS, Chicago, Ill. o

WOOL

E. T. CARTER & CO., Toronto.

LIVE-STOCK EAR LABELS

Farmers and ranchers will find these labels very useful. Write for particulars and prices. Address: F. G. JAMES, Bowmanville, Ont.

W. W. CHAPMAN,

Secretary of the National Sheep Breeders' Association.
Secretary of the Kent or Romney Marsh Sheep Breeders' Association,
and late Secretary of the Southdown Sheep Society.
Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.
Address: HOWBRAY HOUSE, NORFOLK ST. LONDON, W. C., ENGLAND.
Cables—Sheepnote. London.

DORSET HORN SHEEP and SCOTCH SHORTHORNS

The latter representing the Nonpareil, Miss Ramsden, Missie and Gloster families exclusively, and the former comprising more Royal winners and more St. Louis prizewinners than any other flock in the world. Stock for sale always on hand.
John A. McGillivray, North Toronto, Ont.
Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs.
Present offering: Lambs of either sex. For prices, etc., write to JOHN COULINS & SONS, Buena Vista Farm, o Harrison, Ont.

We are Importing Shropshires

If you want any sheep brought out, write us. LLOYD-JONES BROS., Burford, Ont.

NEWCASTLE HERD OF Tamworth Swine and Shorthorn Cattle

We have for quick sale some 60 head of Tamworth swine, including several boars ready for service. A grand lot of boars and sows, from 3 to 7 months old. A few sows bred and ready to breed. These are nearly all the direct get of Colwill's Choice, our swinestakes boar at Toronto for several years. Also a beautiful Shorthorn bull calf, about ready for service; besides a few choice heifer calves, heifers well forward in calf, and cows in calf. All at moderate prices. All correspondence answered promptly. Write for what you want—we can generally supply you.
COLWILL BROS., NEWCASTLE, ONT.

TAMWORTHS

3 fine boars fit for service; also a choice lot of both sexes from 2 to 4 months old, of good breeding stock. Prices reasonable.
Glenairn Farm, Jas. Dickson, Orono, Ont.

TAMWORTHS AND HOLSTEINS

We have for quick sale a choice lot of spring pigs from prizewinning sows. A few boars fit for service and one yearling boar. Also a choice lot of bull calves, from 1 to 6 months old.
Bertman Hoskin, The Gully P. O. o Grafton Station.

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.

YORKSHIRES

for sale, all ages, from imported prize-winning stock, of both sexes. Pairs not akin.
GEO. M. SMITH, Haysville P. O., Ont.

HILLCREST HERD OF ENGLISH BERKSHIRES

JOHN LAHMER, Vine P. O.

HAD TO GIVE UP ALTOGETHER AND GO TO BED. DOCTORS DID HER NO GOOD.

By the time Miss L. L. Hansen, Water-side, 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. Hansen, Water-side, N.B."
Price 50 cents per box, or 3 for \$1.50. All Dealers or THE T. MILBURN CO., Limited, Toronto, Ont.

LARGE ENGLISH YORKSHIRES



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.
D. O. FLATT & SON MILLGROVE, ONT.

LARGE ENGLISH BERKSHIRES

A number of nice young sows, bred to my imported boar, which are due to farrow in April and May. Also a few boars ready for service. Have some nice things three, four and five months old, of both sexes. My herd won all the champion prizes at Dominion Exhibition in 1904.
WILLIAM WILSON, Box 191, Brampton, Ont.

BERKSHIRES

Now is the time to buy Berkshire boars. I have 6 registered Berkshires just ready to wean. All of good bacon type. I will sell them cheap if sold before July 1st.

GLENAVON STOCK FARM,

W. B. Roberts, St. Thomas Station, o Sparta P. O.

Oakdale Berkshires

Of the largest strains. Imported fresh from England. The produce of these and other noted winners for sale reasonable. Let me book your order for a pair or trio not akin.
L. E. MORGAN, Milliken Stn. and P. O.

GLENBURN HERD OF YORKSHIRES

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 strains, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigree and safe delivery guaranteed. Address: E. D. GEORGE, Putnam, Ont.

IMPROVED LARGE YORKSHIRES

Pigs six to nine weeks old, from imported stock. Pairs and trios not akin. Sows from four to six months old.
L. ROGERS, Emery, Ont.

Owing to unforeseen circumstances, I have been unable to supply customers for Poland Chinas. Write me if you want any. For sale, cheap, pure-bred Berkshire boar, registered. F. S. Wetherall, Rushton Farm, Cookshire, Que.

Now is the time to book your orders for young pigs for May and June delivery. A few good young boars on hand.

GOSSIP.

Barred Rock fowl and eggs for hatching are advertised in this paper by Messrs. C. & J. Carruthers, Cobourg, Ont. Their Rocks are of the noted E. B. Thompson's strain, considered the best in America, and are headed by grand cockerels of exhibition quality. They are booking orders now.

Official records of 39 Holstein-Friesian cows in the U. S., from April 26th to May 3rd, 1905, were confirmed.

Their seven-day records averaged as follows: Fourteen full-age cows—age, 6 years 8 months 5 days; days from calving, 18; milk, 479.9 lbs., quality 3.45; fat, 16.539 lbs. Four-year-olds—age, 4 years 2 months 20 days; days from calving, 20; milk, 412.8 lbs., quality 3.27; fat, 13.528 lbs. Nine three-year-olds—age, 3 years 5 months 5 days; days from calving, 18; milk, 405.1 lbs., quality 3.50; fat, 13.970 lbs. Twelve classed as two-year-olds—age 2 years 6 months 3 days; days from calving, 23; milk, 298.7 lbs., quality 3.33; fat, 9.900 lbs.

The cow making the largest seven-day record was 5 years 4 days old at time of freshening; produced 559.8 lbs. milk; quality, 4.06; fat, 22.730 lbs. A cow 3 years 5 months 5 days old at time of freshening produced 588.8 lbs. milk; quality, 3.46; fat, 20.406 lbs.

Two thirty-day records and six fourteen-day records were also confirmed. A cow in the full-age class produced in thirty consecutive days 2,405.2 lbs. milk; quality, 3.82; fat, 91.857 lbs. A cow in the three-year-old class produced in thirty consecutive days 2,341.1 lbs. milk; quality, 3.43; fat, 80.235 lbs. It will be noticed that the former averaged per day 80.4 lbs. milk, containing 3.062 lbs. fat, and that the latter averaged per day 78 lbs. milk, containing 2.675 lbs. fat.

Messrs. W. G. Pettit & Sons, Freeman, Ont., report the following recent sales of Shorthorns: "To J. W. Palmer & Son, Albion, Ind., Cinderella 5th, by Imp. Pure Gold, and out of the imported Roan Lady cow, Cinderella 4th, by Remus, the sire of Choice Goods, winner of the grand championship at the World's Fair, St. Louis, in 1904. Cinderella 5th had a nice red heifer calf at foot, by Imp. Prime Favorite, that went with her. To Messrs. McCracken Bros., Perretton, Renfrew County, the thirteen-month-old bull, Earl of Clarence, by Imp. Prime Favorite; to Mr. Byron Stiver, Mount Albert, the four-year-old imported bull, Scottish Favorite, of the popular Jilt family, got by Scottish Prince, of the Uppermill Princess Royal family; to Mr. T. M. Hauser, Camden, Ont., the two-year-old bull, Saphock, by Imp. Prince George, of the Kinellar Claret family, and out of Imp. Fortune 5th; to Mr. David Sinclair, Innisfail, Alberta, the yearling bull, Nonpareil Victor, by Imp. Nonpareil Archer, sold at Mr. George Isaac's sale, at Markham, in 1903, for \$700, and out of Imp. Primrose 8th. Five of the sires and three of the dams in Nonpareil Victor's pedigree were bred by Mr. Cruickshank. We have still a few bulls for sale, including Imp. Scotland's Pride, a Cruickshank Clipper, got by that great sire of champion winners, Star of Morning. We have used this bull in our herd for five seasons. He is still useful, and we will sell him at a very moderate price. We have an excellent young roan bull, Pride's Consul, by Imp. Scottish Pride, that would make a strong candidate for the junior yearling class this year in any company—smooth, thick-fleshed and a perfect head and horn, with quality all over. We have four more young bulls, fourteen and fifteen months old, just in moderate condition, that will sell at very low prices to clear out our box stalls for our big crop of young calves. We also have an exceedingly good senior yearling heifer that would make a strong addition to any show herd in this country. We are not intending to show a herd this year, but have some good young things in show form we would sell. With the steady rise in prices for shipping cattle and good butchers' cattle, no person should use a scrub bull on their grade cows, when good registered bulls can be bought at from \$75 to \$100. One good cross will raise the price of two-year-old stockers \$10 a head, and double that when they are ready for the shipper."

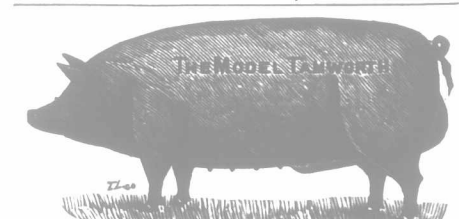
TAKE MY CURE, WHEN CURED YOU PAY ME



The fear that you could not be cured may have deterred you from taking honest treatment. or you may have been one of the unfortunates 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.

Asthma

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



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.

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: o Compton Estate Office, Eastbourne, or to F. A. Walling, 7 Cavendish Cottages, Eastbourne, Sussex, England.

ORCHARD HOME HERD (Registered)

Large English Yorkshires and Berkshires
Only choice stock kept, imported and home-bred, of most approved type; selected with great care and at high prices. We ship, express paid. Take stock back if not satisfactory. We buy our breeders, therefore best not reserved. Our motto: "Quality and square dealing." Choice young stock at reasonable prices.
S. D. CRANDALL & SONS, Cherry Valley, Ont.

Advertise in the Advocate

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



A Convincing Argument

In favor of the use of our Embossed Steel Ceilings and wall finish is the acoustic power they contain. This is apparent when you consider that the whole interior of your church resembles a metallic lined drum. No other finish has this advantage—an advantage which enables the speaker to be heard in any part of the room.

Another is the durability of a Metal Ceiling, once in position it is practically indestructible, as the settling of the building or the raising of the walls, or a leaky roof cannot affect it.

Another is its beauty. We manufacture an immense variety of designs suitable for all uses, and in every style of architecture, all of which can be decorated in the most elaborate manner desired.

Another is the cost, which is no greater than any other kind of good finish, ours varying in price from 4c. per square foot up.

We have a very complete Catalogue, which will be sent to those interested, on request.

The PEDLAR PEOPLE,
OSHAWA, ONT.

Eastern Branch—77 Craig Street, Montreal, Que.

We Will Buy

A 50c. Bottle of Liquozone and Give it to You to Try

We want you to know about Liquozone, and the product itself can tell you more than we. So we ask you to let us buy you a bottle—a full-size bottle—to try. Let it prove that it does what medicine cannot do. See what a tonic it is. Learn that it does kill germs. Then you will use it always, as we do, and as millions of others do.

This offer itself should convince you that Liquozone does as we claim. We would certainly not buy a bottle and give it to you if there was any doubt of results. You want those results; you want to be well and to keep well. And you can't do that—nobody can—without Liquozone.

We Paid \$100,000

For the American rights to Liquozone. We did this after testing the product for two years, through physicians and hospitals, after proving, in thousands of different cases, that Liquozone destroys the cause of any germ disease.

Liquozone has, for more than 20 years, been the constant subject of scientific and chemical research. It is not made by compounding drugs, nor with alcohol. Its virtues are derived solely from gas—largely oxygen gas—by a process requiring immense apparatus and 14 days' time. The result is a liquid that does what oxygen does. It is a nerve food and blood food—the most helpful thing in

the world to you. Its effects are exhilarating, vitalizing, purifying. Yet it is a germicide so certain that we publish on every bottle an offer of \$1,000 for a disease germ that it cannot kill. The reason is that germs are vegetables; and Liquozone—like an excess of oxygen—is deadly to vegetal matter.

There lies the great value of Liquozone. It is the only way known to kill germs in the body without killing the tissues too. Any drug that kills germs is a poison, and it cannot be taken internally. Every physician knows that medicine is almost helpless in any germ disease.

Germ Diseases.

These are the known germ diseases. All that medicine can do for these troubles is to help nature overcome the germs, and such results are indirect and uncertain. Liquozone attacks the germs, wherever they are. And when the germs which cause a disease are destroyed, the disease must end, and forever. That is inevitable.

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| Asthma | Hay Fever—Influenza |
| Abscess—Anemia | Kidney Disease |
| Bronchitis | La Grippe |
| Blood Poison | Leucorrhoea |
| Bright's Disease | Liver Troubles |
| Bowel Troubles | Malaria—Neuralgia |
| Coughs—Colds | Many Heart Troubles |
| Consumption | Piles—Pneumonia |
| Colic—Croup | Pleurisy—Quinsy |
| Constipation | Rheumatism |
| Catarb—Cancer | Scrofula—Syphilis |
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| Dandruff—Dropsy | Stomach Troubles |

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| Dyspepsia | Throat Troubles |
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| Fevers—Gall Stones | Tumors—Ulcers |
| Goitre—Gout | Varicocele |
| Gonorrhoea—Gleet | Women's Diseases |
- All diseases that begin with fever—all inflammation—all catarrh—all contagious diseases—all the results of impure or poisoned blood.
- In nervous debility Liquozone acts as a vitalizer, accomplishing what no drugs can do.

50c. Bottle Free.

If you need Liquozone, and have never tried it, please send us this coupon. We will then mail you an order on a local druggist for a full-size bottle, and we will pay the druggist ourselves for it. This is our free gift, made to convince you; to show you what Liquozone is, and what it can do. In justice to yourself, please accept it to-day, for it places you under no obligation whatever.

Liquozone costs 50c. and \$1.

OUT OUT THIS COUPON.

For this offer may not appear again. Fill out the blanks and mail it to The Liquozone Company, 458-464 Wabash Ave., Chicago.

My disease is.....
I have never tried Liquozone, but if you will supply me a 50c. bottle free I will take it.

Give full address—write plainly.

Any physician or hospital not yet using Liquozone will be gladly supplied for a test.

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

GOSSIP.

CAUSTIC BALSAM GIVES WONDERFUL RESULTS.

Berlin, Ont., March 22nd, 1904.
The Lawrence-Williams Co., Cleveland, O.:

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

The River View Herd of Scotch and Scotch-topped Shorthorns, owned by Mr. A. J. Rowand, of Dumblane, Ont., was established several years ago by his father, who was for several years M. P. for Bruce County, and was not satisfied with anything but the best in the stock line. Mr. Rowand has a half interest in Scott's Choice =43670=, by Prince William (imp.) (77531) =32083=, dam Imp. Meriam =38218= of the Bruce Mayflower tribe. This bull has left Mr. Rowand some prime quality young stock, among which is the soggy, thick, eighteen-months-old bull, Stamford Prince =52417=, dam Golden Bracelet 12th =28248=, by Stanley of Bruce =17665=, great-grandam by Young Abbotsburn =6236=, and tracing to Imp. Stamford 5th, bred by W. S. Marr, Uppermill, Aberdeenshire. This young bull is in his prime, and is in good working form, and likely to develop into a big, good one. The females in this herd are mostly by Lord Lynden, a Watt-bred Crimson Flower, by Lord Lansdowne (imp.), and Chas. Wilks =28305=, by a son of Abbotsford, the great show bull. The chief families represented in the herd are Scottish Maid, Bracelets and Cruickshank Duchess of Glosters and Rosemarys, from which the thick, even stock bull has produced good results. This bull is for sale or exchange, and should be immediately picked up. For further particulars about him, see notes on Mr. Scott's herd in this issue. These two herds are located about half a mile apart, and have been bred with discriminating judgment, no expense being spared to get both good breeding and good quality in the sires used. In introducing them to our readers, we do so feeling confident they will deal uprightly with those coming their way. If you want a good young bull, call and see those mentioned. There is no good reason for sending away a few hundred miles for a bull, when you can get one near your own door, equally as good at a lower price.

A few miles from Port Elgin in the County of Bruce are to be found several good herds of Shorthorns, among which that of Mr. John Scott, of Cedar Vale Stock Farm, Dumblane P. O., Ont., takes no second place. At the head of the herd is the red bull, Scott's Choice =43670=, sired by Prince William (imp.) =32083= (77531), dam Meriam (imp.) =38218=. This bull is of the favorite Bruce Mayflower tribe, and is a massive, thick bull, well filled up, without patchiness, weighing probably 2,500 lbs., with quality to match. He has been a first-prize winner wherever shown at local shows, and we would expect him to stand well up even at the large exhibitions. He is splendidly bred (along the same lines as Imp. Prince Sunbeam, the champion of 1904), and has six Cruickshank sires near the top of his pedigree. He has been used successfully for three years in the herd, and as it is not convenient to use him much longer, his present owners will sell or exchange him for another, if they can find one equal in quality and breeding. Among the grand young things that he has left for Mr. Scott, and which are for sale, is Lovely Lad, a red bull, about eighteen months old, from Lovely Lass, by Lord Lynden, a Watt-bred Crimson Flower, by Lord Lansdowne (imp.), a bull with considerable Marr breeding in his pedigree. This youngster, we should say, has breeding and individuality sufficient to warrant his being placed in any herd. Mr. Scott is offering him extremely low, and there are very many that should have just such a one in their herd. We also noticed a seven-months-old bull calf from same sire and dam as above that is going to make quite the equal of his sire, if we mistake not. All the bulls mentioned above are reds, and should be in keen demand to head light roan herds.

GOOD HEALTH AND SUCCESS

GO HAND IN HAND WHEN THE
BLOOD IS KEPT PURE
AND RICH BY

Dr. Chase's Nerve Food.

Red blood means health, strength, courage, cheerfulness, power of endurance and a well-nourished brain that likes to accomplish things.

The secret of health is, after all, in the blood, for with an abundance of rich, red blood the nervous system is nourished and sustained, the lungs, heart, stomach, liver and kidneys are filled with the vigor and energy necessary to accomplish their work, and there is no room for weakness and disease.

Dr. Chase's Nerve Food builds up, strengthens and invigorates the whole human body because it actually forms rich, red blood.

Indigestion, sleeplessness, nervous headache, irritability, nervousness, lack of energy and strength and failure of the bodily organs to perform their functions are almost invariably the result of poor, weak, watery blood.

The use of Dr. Chase's Nerve Food completely overcomes these symptoms, and by filling the whole system with new vigor gives new hope and confidence and replaces weakness and disease with health and strength.

Dr. Chase's Nerve Food, 50 cents a box, 6 boxes for \$2.50, 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.

A teacher at Stepney, East London, was giving her class an examination on the scriptural work of the previous three months. Among other questions, the lady asked: "With what weapon did Samson slay the thousand Philistines?" And the girl, jumbling her old and new Testament knowledge, stood up and replied: "With the ax of the Apostles." A woman teacher had been explaining the story of the casting adrift of the infant Moses. "Now, why was it, do you think, that the good mother daubed the little ark boat so carefully with slime and pitch?" "Oh, ma'am," said one little five-year-old girl, "to make the baby stick inside."

CURE THE MOST EXTREME CASES

Stone in the Kidneys Cannot
Stand Before Dodd's
Kidney Pills.

Mr. S. A. Cassidy, of Ottawa, Permanently Cured After Years of Suffering, by the Great Canadian Kidney Remedy.

OTTAWA, Ont., May 15th.—(Special).—While all Canada knows that Dodd's Kidney Pills are the standard remedy for all Kidney Complaints, it may surprise some people to know they cure such extreme cases as Stone in the Kidneys. Yet that is what they have done right here in Ottawa.

Mr. S. A. Cassidy, the man cured, is the well-known proprietor of the Bijou Hotel on Metcalf Street, and in an interview he says: "My friends all know that I have been a martyr to Stone in the Kidneys for years. They know that besides consulting the best doctors in the city, and trying every medicine I could think of, I was unable to get better."

"Some time ago a friend told me Dodd's Kidney Pills would cure me. As a last resort I tried them, and they have cured me."

"I could not imagine more severe suffering than one endures who has Stone in the Kidneys, and I feel the greatest gratitude to Dodd's Kidney Pills."

If the disease is of the Kidneys or from the Kidneys, Dodd's Kidney Pills will cure it.

QUESTIONS AND ANSWERS. Miscellaneous.

LUMPS IN COW'S TEATS.

I have a cow with hard lumps in both her hind teats. They were there last summer, and she gave bloody milk out of these teats at times. The lumps are about the size of large peas, and are situated up near the udder. Can you give any treatment? J. A. M.

Ans.—These lumps are a cause of frequent trouble to many dairymen, and the only way in which a cure can be effected is by an operation with an instrument called a concealed bistoury in the hands of an expert. Better feed her for the butcher.

THE ABATTOIR BILL.

1. Would the bill, now before the Ontario Legislature, to grant exclusive rights to establish public slaughterhouses, if passed and acted upon by the municipalities, have the effect of preventing further operation of what are known as farmers' beef-rings?

2. Would the bill, if passed and acted upon as mentioned above, entirely destroy competition in cities and towns in respect of the killing and sale of cattle, sheep and hogs in such municipalities? Ont. FARMER.

Ans.—1. No. 2. It would, in respect of the matter of killing; but we think the bill as at present worded does not go farther than that.

A QUESTION OF CONCEPTION.

It has been stated that if a cow is served by two or more bulls during one period of heat she will not conceive. Is this true? If not, to which is she most likely to breed. J. B. L.

Ans.—The statement is not true, as has been proven in many instances. It is impossible to state to which service the cow will conceive; but if a conception takes place it will be when the female ovum (egg) comes in contact with a male spermatozoon (one of the living elements in the semen to which it owes its fecundating power) and is fertilized by it. In other words, when the ovum meets its affinity, which may be any one of the legion of spermatozoon in any one of the service.

URETHRAL AILMENT.

A shearing Oxford ram, purchased last fall, has been with the sheep all winter. I found, when shearing, that his penis was out and very much swollen and inflamed so that he cannot draw it into its sheath. What is the cause? What can I do for him? Will he be any use next season? J. R.

Ans.—This may be caused by the wool on the parts being fouled, and causing inflammation, in which case washing with warm soft water and soap and oiling the part with carbolic oil, say one part of carbolic acid to 30 of sweet oil or raw linseed oil, may effect a cure. It may arise from stone in the bladder or in the canal by which urine is discharged from the bladder, in which case an operation by a veterinarian might be successfully performed. This is sometimes caused by feeding mangels, and some breeders avoid feeding mangels to rams on account of this danger. If the trouble disappears, and the "worm" is not injured, he may be safe to breed from, but it will be risky to depend on him.

HORSE HAS NOT SHED HIS HAIR.

What would you recommend for a horse, five years old, that has not lost his old hair and looks out of condition, but feels well? He is fed on good mixed hay and three gallons of ground and whole oats per day, and is worked regularly. He has been fed linseed meal and stock food for some time, but is getting no better. G. G. G.

Ontario Co., Ont.
Ans.—Examine his teeth at once, or have them examined by an expert veterinarian. Give him a purgative of 8 drams aloes and 2 drams ginger, and follow up with 1 dram each of sulphate of iron and gentian, twice daily. Feed hay of good quality and crushed oats, with a couple quarts of bran in place of one-half the evening oat ration. Allow the horse to have half an hour at grass every evening. It is a good plan to hobble the horses at this season, and clean them outside while eating grass. This is pleasant and wholesome for both groom and horse.

Why Experiment?

YOU want profits—not losses—in return for the time, labor and expense invested in YOUR dairy. Don't you? Then—Why Experiment?

YOU will admit that the most butter from YOUR dairy, of the best quality, means the greatest profits. Then—Why Experiment?

YOU cannot afford to invest YOUR capital, time and labor in any but the most practical dairy methods. Then—Why Experiment?

YOU have the choice; the most butter of the best quality, or less butter, and quality a costly uncertainty. Why Experiment?

YOU KNOW what YOUR choice should be. Why Experiment?

The IMPROVED U.S. Cream Separator

will save YOU the long, unsatisfactory and costly experience which experiments always involve. It will place YOU immediately in command of the two winning points in the dairy business: quality and quantity.



Quality

Every highest score on Dairy Butter in each of the four great butter scoring contests at the WORLD'S FAIR, ST. LOUIS, 1904, including **The Sweepstakes** in the Dairy Class, was awarded to the product of the U.S. CREAM SEPARATOR against the world. "U. S." Quality Wins.

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The U.S. Cream Separator still continues to hold world's record as the closest skimming separator in the world—saves cream every day that other separators would lose.

Substantial and simple—extremely durable—proven by many years of satisfactory service. No joints to work loose, no ratchet pin to break off, no exposed gears to be injured—no repairs.

Perfect adjustment of working parts—no oil wasted. Easy to operate.

You can't make your cows pay you as they should without a U. S. Cream Separator—the best money-maker on the farm.

Now DON'T Experiment

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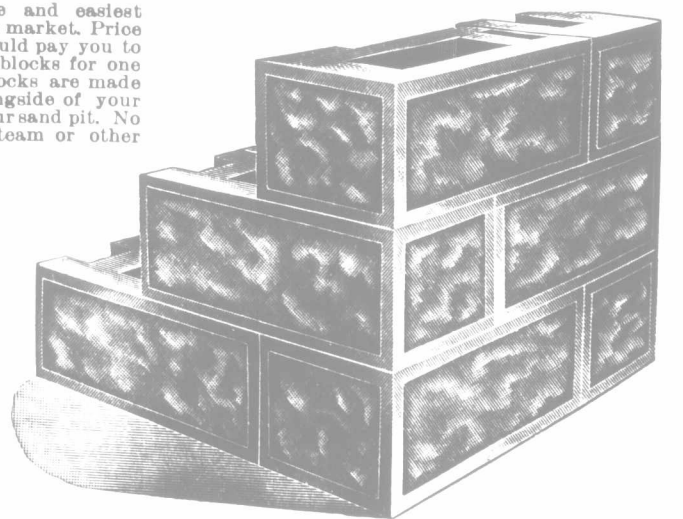
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Dunn's Hollow Concrete Block Machine

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 hand-somer. Warmer in winter; cooler in summer; and indestructible.

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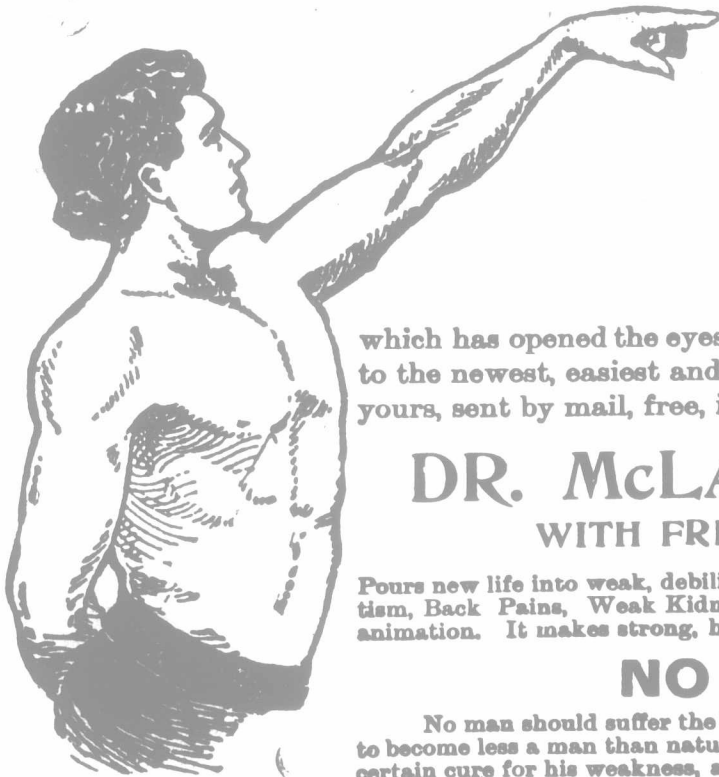


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SEND THIS COUPON AND GET IT FREE



The little coupon which is appended to the bottom of this advertisement, mailed to me, will bring you a book which has opened the eyes of thousands of suffering men and women to the newest, easiest and cheapest way to health and vigor. It is yours, sent by mail, free, if you will send this coupon.

DR. McLAUGHLIN'S ELECTRIC BELT WITH FREE ELECTRIC SUSPENSORY FOR WEAK MEN

Pours new life into weak, debilitated men, builds up nerve and vital force, cures Varicocele, Nervous Debility, Rheumatism, Back Pains, Weak Kidneys, Stomach, and revives the spark of youthful energy, giving back the old, vigorous animation. It makes strong, husky and vigorous specimens of manhood. (It is just as good for women as for men.)

NO MAN SHOULD BE WEAK.

No man should suffer the loss of that vital element which renders life worth living. No man should allow himself to become less a man than nature intended him; no man should suffer for the sins of his youth, when there is at hand a certain cure for his weakness, a check to his waste of power.

Most of the pains, most of the weakness of stomach, heart, brain and nerves, from which men suffer are due to an early loss of nature's reserve power through mistakes of youth. You need not suffer for this. You can be restored. The very element which you have lost you can get back, and you may be as happy as any man that lives.

My Electric Belt with Special Electric Suspensory (free), will restore your power, and will give back the old vigor of youth. I know how skeptical people are after paying out hundreds of dollars without getting any benefit, and know that many would pay after they were cured. To those I say, set aside those prejudices, give me evidence of your honesty by offering me reasonable security for the Belt. I will arrange it with necessary attachments suitable for your case, express it to you, and you can

Wear it Until Cured and Pay Me When the Work is Done.

Use My Belt and Be Strong.

My Belt is easy to use; put it on when you go to bed; you feel the glowing heat from it (no sting or burn, as in old style belts) and you feel the nerves tingle with the new life flowing into them. You get up in the morning feeling like a two-year-old.

Cured By My Belt, and Has Laid It Aside.

LONDREBORO, Ont., Jan. 11, 1905.
DR. McLAUGHLIN: Dear Sir,—I write you to let you know that your Belt helped me wonderfully. I am well satisfied. I feel well, and can work without being fatigued and done out like I used to be. I quit wearing the Belt in the early part of the summer, as I do not need it while I feel as I do now, nor have any desire to unless my trouble should come back on me, which I don't think can possibly occur. Yours very truly,
JOSEPH C. CARTER.

This drain upon your power causes all kinds of debility and Stomach Ailments. You know it's a loss of vital power and affects every organ of the body.

Every man who uses my Belt gets the advice and counsel of a physician free. I give you all that any medical man can give, and a lot that he can't. Try my Belt. If you can't call, write me to-day for my beautiful illustrated book with cuts showing how my Belt is applied and lots of good reading for men who want to be "The Noblest Work of God"—A MAN. Inclose this coupon and I will send this book, sealed, free.

Most of the ailments from which men suffer can be traced to it.

I have cured thousands of men who have squandered the savings of years in useless doctoring.

An old man of 70 says he feels as strong and young as he did at 35. That shows it renews the vigor of youth.

It cures Rheumatism, Sciatic Pains, Lumbago, Kidney Trouble. It banishes pain in a night, never to return.

What ails you? Write and tell me, and, no matter where you are, I think I can give you the address of someone in your town that I have cured. I've cured thousands, and every man of them is a walking advertisement for my Belt.

Every man who ever used it recommends it, because it is honest. It does great work, and those whom I have cured are the more grateful because the cure costs so little.

Cut This Out and Send It To-day:

DR. M. S. McLAUGHLIN,
130 Yonge Street, Toronto, Can.

Please send me your book for men (or women), sealed, free.

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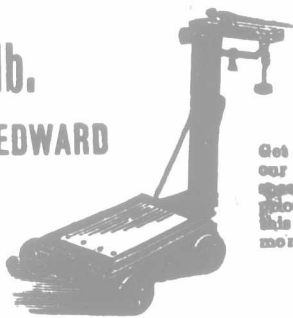
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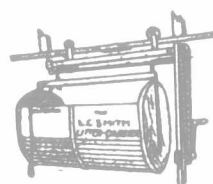
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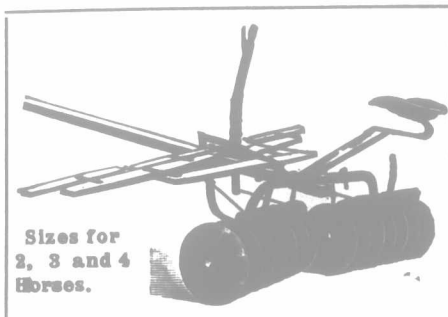
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Canadian-grown Seed. White Cap Yellow Dent, testing 92 to 100; Leaming, testing 88 to 94; North Dakota, testing 90 to 94; Eight-Row Yellow Flint, testing 94 to germinate. Write for price list.

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Insurance in force\$7,646,798 35

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Best Company to insure in. Best Company for agents to represent. Agents wanted.

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\$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. IMPERIAL SILVERWARE CO., Box 706, Windsor, Ont.

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The constant cropping of the land must of necessity take all the life-giving properties out of the soil, and in time will leave it absolutely worthless.

Scattering of the barnyard manure over the land in a haphazard way by hand has heretofore been the only method of recompensing the land thus impoverished, but the work was such a back-breaking and tedious job that it was never satisfactorily done.

The Massey-Harris 20th Century Manure Spreader has changed all this, and with it the manure heap has doubled its value to the soil, the producing powers of the soil are doubled, and your labor is reduced to a minimum.

The Massey-Harris Manure Spreader spreads the manure systematically; it is thoroughly pulverized and spread so evenly that it is immediately available as plant food to the soil.

The first rain will reduce it to a liquid state and carry it into the soil.

The Massey-Harris Manure Spreader is a most important implement on the farm to-day.

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Frost Wire Fence is Cattle-Proof

Frost Wire Fence is high carbon steel, coiled spring wire, tested to 2,000 pounds tensile strength. Each separate strand of wire can support 2,000 pounds weight. There are mighty few horses and cattle that weigh 2,000 pounds. "Frost" UPRIGHT WIRES are heavy. Each one supports its own share of the strain. This prevents sagging in the middle. Uprights are immovably locked to the running wires by the

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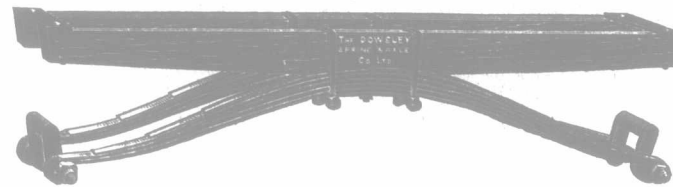


It does away with bends and bows, crimps and kinks, soft tie wires and weak spots, and preserves the whole strength of the fence. Galvanized by electricity so the lock can't rust. FROST WIRE FENCES stand weight, strain and climate—as strong ten years after as the first day they are put up. Write for catalogue, which tells all about the Frost Fence and Frost Lock. It's free.

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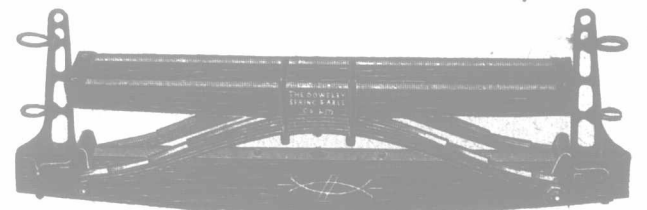


The best Spring made.
Easy on the horses
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AS WE SHIP THEM.

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By our system you can purchase a Ruggy, Phaeton or other high-grade Carriage or Harness, at one-third less than from your local dealer. The broadest guarantee given with each purchase. If not thoroughly satisfied, you can return the vehicle, and we will pay freight both ways. Our complete Illustrated Catalogue, showing many styles of vehicles and harness, with detailed description of each, mailed free. Write to-day.



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