

**PAGES
MISSING**

Barn Roofing

Fire, Lightning
Rust and Storm Proof

Durable and
Ornamental

Let us know the size of
any roof you are think-
ing of covering and we
will make you an inter-
esting offer

The
Metallic Roofing Co
Limited
Manufacturers
Toronto and Winnipeg

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

STOCK MEN



Advertise your
fancy stock by
means of first-class

DRAWINGS

AND

ENGRAVINGS

Send us your photos,
and our stock artist
will bring out the
points.

THE
TORONTO ENGRAVING
COMPANY LIMITED
TORONTO - - - CANADA
DESIGNERS, ILLUSTRATORS, ENGRAVERS

Subscribe for "Farmer's Advocate"

QUESTIONS AND ANSWERS.

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

Miscellaneous.

SALT KILLS LICE.

I see in your last issue a statement about using salt for lice on cattle, and ticks on sheep. I have used it for the last five years, and it has done the work satisfactorily. It works well also for lice on hens. Powder it fine; catch the hen by the legs, and dust the salt on with a duster. WM. S. TUCKER.
Lambton Co., Ont.

FOUNDATION FOR SILO.

1. Should the liquid from the silage be allowed to escape from the silo by an underdrain or gravel bottom, or be held in the silo with the silage?
2. Would it be advisable for me to put the bottom of silo three feet below the ground line, when at that depth I could not possibly drain it?
3. I intended to dig out a pit, four feet deep, put one foot of concrete in the bottom, and build a foot wall of concrete around the outside, and plaster it inside with cement. I would have the cement wall to come one foot above the ground line, and set the staves in center of wall. Would this make a satisfactory silo under the conditions mentioned in the second question? F. W. C.

Ans.—1. Yes; it is decidedly advisable. Otherwise, a foot or two of somewhat slushy, inferior silage is almost sure to be found in the bottom.

2. No.
3. No; for the reason mentioned, and, also, because it is a big job throwing the ensilage out of the bottom of a silo, partly underground. Then, again, there is often difficulty in securing a satisfactory joining of cement wall and staves, and some waste results. By the way, if this plan is resorted to, the staves should be plumb with inside surface of wall. We recommend either building the silo entirely of cement concrete, or else laying a foundation floor of cement on the surface of the ground, and standing the staves upon it; this will be cheaper and better.

BUILDING CEMENT SILO.

1. I intend to build a silo of cement, 12 by 26 feet. How many yards of gravel would it take?
2. How much Portland Cement?
3. How much and how often should wire be put in? I intend to build the structure myself with wooden moulds that I can buy from my neighbor as soon as his is up.
4. What strength should concrete be, and how strong the plaster?
5. Could it be built up from bottom to top without stop to dry?
6. What size doors and how far apart?
7. I am building this silo to the west of bank barn, in a shed, and have to dig down six feet to the floor in stable. Would it be advisable to dig four feet below the floor, as the height from floor to the roof is only 24 feet? Kindly advise through your valuable columns. E. G. K.

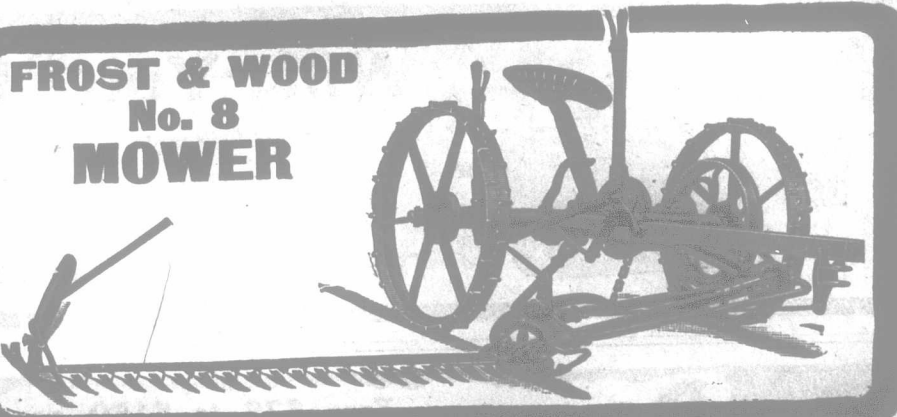
Ans.—1 and 2. If wall averaged eight inches in thickness, there would be needed about 32 yards of gravel and 27 barrels of Portland cement. Plaster extra.

3. A silo that we know of has four strands of number 9 wire imbedded in the wall, each 15 inches where the strain is greatest, and each 30 inches above.
4. One of cement to eight of gravel. The plaster should be one of cement to two or three of fine sand. Some do not use plaster, but brush on pure cement mixed with water.

5. Certainly.
6. One and a half feet wide and two and a half feet high, five feet between doors will answer.

7. It is not usually advised to dig silo below level of floor, though, if thoroughly drained, no harm, we think, would result. T.

FROST & WOOD No. 8 MOWER



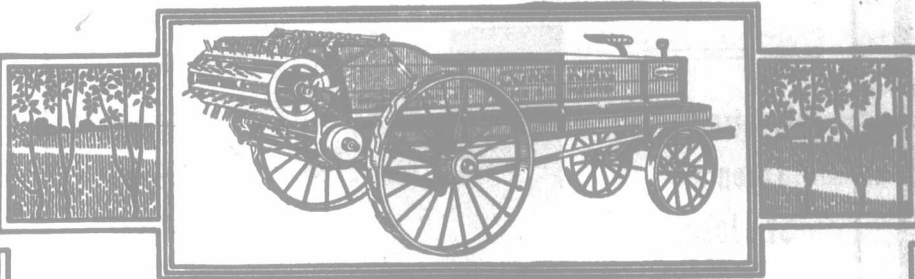
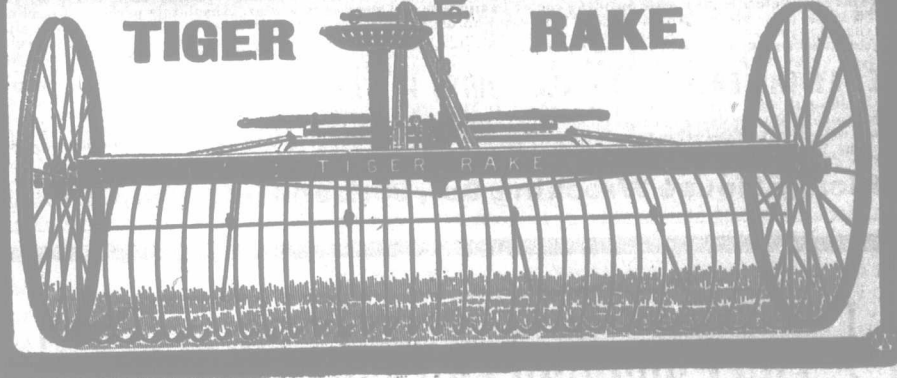
HAY-MAKERS THEY WORK WELL TOGETHER

An ideal combination for getting in your crop of grass. Our No. 8 Mower with its strong, substantial build, its accurate, clean-cutting power and ease of operation, is a real money-saver and profit-earner for thousands of farmers at every point in the Dominion. It is strong, durable, needs few repairs, it works day in and day out, proving the stalwart honesty and mechanical excellence put into every gear and wheel, knife and shaft, cutter-bar and pitman.

But there's the other tool—can't get along without that—the Tiger Hay-Rake. It's all steel, except tooth-rail and shafts, which makes it proof against hard work, rain and exposure. A Tiger Rake is exceptionally durable. It does such clean work, too. The spring teeth have just enough elasticity, and are curved so as to pick up grass easily and evenly. It's an easy rake to handle for horse and driver. It can be dumped by foot or hand. The fall of the teeth after dumping is eased by a strong spring that prevents much of that disagreeable jar so evident in cheap rakes. We can't tell you here the scores of good points about these hay-makers. Send for our catalog "F" and "Farmer's Ready Reckoner." Both books are free, and answer your questions. Ask our local agent to show you our farm implements. He'll gladly do it.

The Frost & Wood Co., Ltd.
Smith's Falls, . . . Canada.

TIGER RAKE



Make the manure bring you
\$4 a ton

Thousands of Successful Farmers Are Doing It

There is no charm or secret about it. You simply spread it with a machine, and thus make it go twice as far, get twice as much good from it on the first crop, do your land more permanent good, and save half the time and labor of handling.

Manure is generally estimated to be worth \$2.00 a ton handled the old way. There is no doubt that it is worth twice as much to the farmer who spreads with a machine.

Two of the most practical and valuable machines manufactured for farm use today are the Corn King and Cloverleaf manure spreaders. They are each made in a number of sizes.

These machines differ somewhat in construction and operation, but both are right working and of great durability.

They are proven machines. They embody the best mechanical ideas, the materials used in construction are the best for the purpose, they are made as simple

as possible, and they handle manure in all conditions to the perfect satisfaction of users. Proof of all this is to be found in the record each machine has made in the field.

Is it not to your interest to own and use one of these spreaders on your farm?

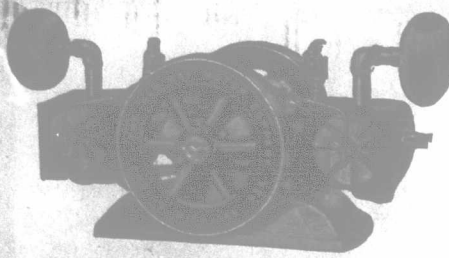
Figure out for yourself and you must agree that it will be a paying investment, even if you do not have over twenty-five loads of manure to spread in a year.

You can't help but be pleased with the work, the easy handling, the light draft and the substantial making which saves you the annoyance of breakage and repairs.

Call and see these spreaders with the local International agent. He will gladly point out to you the superior features of these machines, as well as supply you with catalogue, colored hanger or other information.

The nearest branch house will supply you with any further information desired.
CANADIAN BRANCHES: Calgary, London, Montreal, Ottawa, Regina, St. John, Hamilton, Winnipeg
INTERNATIONAL HARVESTER COMPANY OF AMERICA
(Incorporated)
Chicago, U. S. A.

Best Results are Obtained from Advertising in The Farmer's Advocate

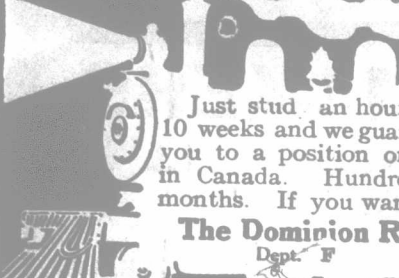


Will You Buy a Gasoline Engine?

If you have made up your mind to buy a Gasoline Engine, you cannot afford to experiment. Buy the engine that you know is the best. The "New Way" Air-cooled Gasoline Engine represents the highest development of engine construction, the highest possible grade of material, workmanship and finish, and is guaranteed to be and do just what is claimed in our catalogue.

For farm, orchard and dairy it is the ideal engine. If you are in any way interested in gasoline engines, you should have our illustrated catalogue F. Write for it. It is free. Agents wanted.

THE "NEW WAY" MOTOR CO., BRIGHTON, ONTARIO.



Earn \$75 to \$150 per month as Brakeman or Fireman.

Just study an hour a day for 8 or 10 weeks and we guarantee to assist you to a position on any railway in Canada. Hundreds of men wanted in the next few months. If you want the above salary, ask for our booklet.

The Dominion Railway Correspondence School
Dept. F
WINNIPEG, MANITOBA.



NEW STEEL ROOFING

\$1.75 PER 100 SQ. FEET

STEEL SIDING \$2.25 PER 100 SQ. FT. LOOKS LIKE BRICK

Most Durable and Economical Known Easy to put on, requires no tools but a hatchet or a hammer. With ordinary care will outlast any other kind. Thousands of satisfied customers everywhere have proven its virtues. Suitable for covering any building. Also best for ceiling and siding. FIRE-PROOF AND LIGHTNING-PROOF. Cheaper and more lasting than shingles. Will resist rain water. Makes your building cooler in summer and warmer in winter. Absolutely perfect. Brand new. \$1.75 is our price for our No. 15 grade of Flat Semi-hardened Steel Roofing and siding, each sheet 24 in. wide and 24 in. long. Our price on the Corrugated, like illustration, sheets 22 in. wide and 24 in. long, \$2.00. For 25c per square additional we will furnish sheets 6 and 8 feet long. Steel Pressed Brick Siding, PER SQUARE, \$2.25. Fine Steel Beaded Ceiling, PER SQUARE, \$2.25. Also furnish Standing Seam and "V" Crimped Roofing. At these prices WE PAY THE FREIGHT TO ALL POINTS IN CANADA. **SATISFACTION GUARANTEED OR MONEY REFUNDED.** We ship this roofing to any one answering this Ad. C. O. D., with privilege of examination if you send us 25 percent of the amount of your order in cash; balance to be paid after material reaches your station. If not found as represented, we will cheerfully refund your deposit. **ASK FOR CATALOG NO. C. K. 648** Lowest prices on Roofing, Eave Troughs, Wire Pipe, Fencing, Plumbing, Doors, Household Goods and everything needed on the farm or in the home. **WE BUY OUR GOODS AT SHERIFFS' AND RECEIVERS' SALES**
Chicago House Wrecking Co., 35th and Iron Sts., Chicago

No Chance for Argument

De Laval Cream Separators

Get just a little bit more every time

THAN ANY OTHER MACHINE or skimming system used in the recovery of butter-fat. Absolutely the best, and costs no more than its imitations.

The De Laval Separator Co.
175-177 William Street MONTREAL

The Canadian Fairbanks Co., Ltd.

Montreal,
Toronto,
St. John.



Winnipeg,
Calgary,
Vancouver.

FAIRBANKS - MORSE ENGINES

For Gasoline, Kerosene, Distillate Gasoline, Alcohol. Vertical, Horizontal and Wood Base.

ALL SIZES.

70,000 are in use, and every one is giving satisfaction. Unequalled for durability, economy and reliability. Write to-day on coupon below for catalogue and copies of testimonials.

The Canadian Fairbanks Co., 444 St. James St., Montreal

Please send catalogue and copies of testimonials.

Name

Address



Here's the Opportunity! Are You the Man?

If an employer should say, "I want a man for an important position" would you be the right man?

Opportunities like that are coming constantly to men and women trained by the Canadian Correspondence College, Limited, a school that qualifies men and women for every opening; to command high salaries; to succeed in the best positions.

Doesn't it shake you up when you see another fellow pushed ahead, because he is trained, and yourself plodding along in the same poor job at the same low wages?

Just this week a young man came into our office who had recently graduated in our Complete Commercial Course. Before he had finished the course he obtained an excellent position as bookkeeper with a large manufacturer. Shortly after graduating he was offered and accepted a splendid situation in a Toronto bank. He called to enroll in our Chartered Accountant's Course. He recognized the value of getting ready for future promotions. Why don't you get in line for a good position? It's the business of the C. C. C. to help you. No matter where you are, what you do, or how little you earn, the C. C. C. comes to you, right where you are, at your present work in your own home, and qualifies you for the good things others will grasp if you don't wake up.

The first step is to mark and mail the coupon. It costs nothing but a stamp, and will bring you information and help that may be worth thousands of dollars.

Draw a line through the course wanted. Clip out and send with your name and address for full information.

Bookkeeping.

Shorthand.

Complete Commercial.

Mechanical Drawing.

Beginner's Course.

Matriculation.

Teacher's Certificate.

Steam Engineering.

(Special subject.) (Fill in)

Name

Address

The Canadian Correspondence College, Ltd.,
Dept. E. TORONTO, CANADA. 750

The Farmer's Advocate

and Home Magazine

"Persevere and Succeed."

Established 1866.

Vol. XLIII.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1976.
LONDON, ONTARIO, FEBRUARY 6, 1908.

No. 802.

EDITORIAL.

MISTAKES IN ROADMAKING.

One great trouble with roadmaking in this country is that we have been going at it "t'other end to," putting the cart before the horse, or, to express the case explicitly, trying to put on the finishing coat of metal before the foundation was ready. Millions of dollars have been spent applying gravel and crushed stone to seepy, flat, undrained, or inadequately-ditched roads, and when, under the trying influence of our winters and springs, freezing and thawing, combined with traffic, disrupted the roadbed, broke the surface bond, and caused the mushy subsoil to suck the metal into its quagmire depths, we looked on with a ruefulness exceeded only by our stupidity, and drew more gravel the next summer, repeating the process till a cross-section of many roads will show from a foot to a foot and a half of mixed gravel and earth.

And still the roads are not good. Why? Because we forgot drainage, forgot grading, and forgot proper shaping and compacting of the earth crown. Finally, we forgot that, to keep metalled roads in condition requires intelligent application of the stitch-in-time principle, by employing a man to look after each piece of road, keep the ruts raked full of gravel, holes filled, ditches clean, culverts attended to, and cobblestones raked off, or broken and distributed. In fact, we slighted, more or less, practically all the essentials of good roadmaking, except the simple and elementary one of hauling the gravel; and even this was often unintelligently performed, both as to taking from the pit and dumping on the road.

All this was not for the lack of good advice, for in Ontario, at least, we have had the best of instruction and help from our Good Roads Commissioner, Mr. Campbell, and, in those municipalities where his services were taken advantage of to some extent, better results have been secured, but in scarcely any county has his assistance been intelligently or fully utilized. As a rule, it was all he could do to impress the elements of roadmaking, and in many cases even these were misconstrued and wrongly or half-heartedly applied.

RESULTS VS. DISAPPOINTMENT.

If anyone has inferred from our energetic advocacy of the split-log drag that we are opposed to gravelling or macadamizing, he is entirely mistaken. We believe thoroughly in the use of gravel and crushed stone on all heavily-travelled roads, but we are opposed to the short-sighted and senseless practices that have so often passed muster in the name of roadmaking. In other words, we believe in going slow on the gravelling and macadamizing business, doing well every mile that we attempt, and meanwhile keeping the earth roads as good as possible by the use of the drag. A good earth road is in several ways preferable to a poor stone road, and is a much cheaper foundation for proper macadamizing when the time for such arrives. We have been in too much of a hurry to scatter a sprinkling of pebbles or broken stone on our highways, and consequently have neither earth, gravel nor macadam, but an expensive and unsatisfactory conglomerate. It cannot be denied that gravel, however applied, will be of some value on almost any road; but when we consider the cost of application, the question, in many cases, is whether the results are such as we might reasonably expect. Are we getting the best value possible for the expenditure? Over twenty million dollars in money and time have been laid out on the roads of Ontario in the past ten years, and proportionate amounts

in other Provinces. Have we received reasonable value for that investment? Is it not time to pull ourselves together and make up our minds to go at this business right end foremost, first making the earth roads as good as we can—well shaped, well smoothed, well ditched, well bridged, and, when necessary, underdrained? Then let each municipality proceed to macadamize or gravel its important roads, a mile or so at a time, seeing to it that, once built, they are kept in scrupulous repair. Thus, eventually, we might expect to have an excellent system of country roads, with leading highways that would compare with the far-famed roads of Europe. Such a system would lead us somewhere, and make for permanent results. The present practice of many townships is leading them nowhere, and producing a large crop of disappointment.

TILING FIRST, THEN METALLING.

In pursuance of such a policy as outlined above, the first thing to look to is drainage. In fact, the whole object of roadmaking is drainage—surface and subsoil. We are at last coming to realize in this country, to some extent, the importance of surface drainage, but in many cases that is not enough. Tile-draining is an essential part of good roadmaking in many soils, and will give good results in almost any case. The reasons why underdraining is beneficial are very lucidly set forth in an article, "Tile Drains in Roadmaking," prepared for "The Farmer's Advocate" by A. W. Campbell, Deputy Minister of Public Works and Commissioner of Highways, Toronto, and the results are eloquently attested by letters quoted from the clerks of a dozen townships in which road underdrainage has been more or less extensively practiced. We need not recapitulate those. The article and letters speak for themselves. It will be observed that there is some slight difference of opinion as to where the tile should be placed, whether in the center, within the shoulders, or under one or both ditches. A good deal depends upon the conditions. On one point, however, all are agreed. Underdraining is of immense advantage, especially when the roadbed is inclined to be seepy or to heave. And when we consider that, once laid, the tile are there for at least a lifetime, and that they not only produce a pronounced immediate betterment, but insure an ideal foundation for successful gravelling or macadamizing, does it not appear that, as a first step toward road improvement, our councils should bend their energies to a policy of systematic tile draining, instead of frittering it away patching up metalled roads that seldom stay properly metalled more than a few years at a time? Is it not time to take thought for the future, plan for permanent results, and begin at the beginning, which is tile drainage?

Until recently, public attention has not been sufficiently drawn to underdrainage. The people began by gravelling and doing such things as they knew. Now the time has arrived for something more permanent and well conceived, and we are convinced that, especially in this country of deep winter frost, the first step on most roads should be tiling.

Clay hillsides, with abundance of lime and potash in their composition are especially well-adapted for alfalfa culture. These washy slopes, that are hard to work, require much manure, and commonly yield inferior returns, are potential gold mines. Lose no time in getting them seeded to alfalfa, and the acres that have so long been profit-leechers will become the best mortgage-lifters. Don't take our word for it. Try it and see.

ALFALFA ENRICHES THE FARM.

All kinds of objections—some fancied, others more or less real—are urged against alfalfa culture. Some men think it must be hard on the land, whereas it is a more effectual soil improver than clover. By means of the bacteria working on its roots, it abstracts from the air circulating through the soil most of the nitrogen it needs, and as nitrogen is the rarest and by far the most expensive element in commercial fertilizers, the economy of alfalfa in this respect is enormous. Then, too, the roots range deep down into the subsoil, bringing up potash and phosphates below the reach of other plants. These same roots are the most effective subsoilers known to agriculture. It is true that, if alfalfa, or, for that matter, clover, were grown indefinitely, and sold off the farm, it would in time reduce the proportion of available potash and phosphoric acid in the soil, and these elements would have to be supplied from year to year in the form of ashes (or potassic fertilizers), phosphates and lime. But this would be comparatively inexpensive. And let it be clearly understood that, when the alfalfa hay is fed to stock, and the manure applied to some other fields of the farm, it is probably the most economical and certain means ever devised for enriching the farm economically. Moreover, when the alfalfa sward is plowed up, it will, if given any kind of a chance, as to season and cultivation, yield one of the biggest crops of corn ever grown on that land. So far from being hard on the land, alfalfa excels clover as a soil-improver, especially when fertilized judiciously with wood ashes, lime and phosphoric acid (in the form of bone meal, basic slag, ground-rock phosphate or acid phosphate). Barnyard manure may be occasionally applied, but is a less economical fertilizer for alfalfa than the purely mineral elements, for the nitrogen in the manure is not needed by alfalfa, and is therefore virtually wasted. While an occasional light dressing of manure may be advisable to add humus and improve the organic condition of the soil, and, while manure is much better than no fertilizer at all, yet, for the most part, we are convinced that once the stand is established, it will pay better to fertilize the alfalfa chiefly with mineral fertilizers, and save most of the manure for other fields. Wood ashes and lime, as a rule, give wonderful results, and the effect is by no means exhausted in the season of application.

A TIP TO THE PROFESSORS.

It is astonishing that so little attention, comparatively speaking, has been paid to alfalfa at our Canadian Experimental Farms and Agricultural Colleges. Prof. Cumming is, with commendable enterprise, experimenting with it in Nova Scotia. A little is grown on the experimental plots at Guelph, and it is also raised to a limited extent on the Central Experimental Farm at Ottawa, but at neither of the latter two places have the authorities ever evinced a thoroughgoing, intelligent appreciation of the immense possibilities of this crop and its value to Canadian agriculture. Why, it is hard to say, for they are exceedingly alert and well-informed on most subjects, but what some of them seem not to know about alfalfa is amazing. There are hundreds of plain, everyday farmers all over the Province who are more fully seized of its advantages. Pat Clarke, away down near Ottawa, on the Quebec side of the river, has had excellent success with it, and is thoroughly convinced that it is the great solution of the dairymen's feed problem. So of scores we could mention in various districts. Is it not about time for the professors to wake up on this matter?

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,
WINNIPEG, MAN.

LONDON (ENGLAND) OFFICE:
W. W. CHAPMAN, Agent, Mowbray House, Norfolk Street,
London, W. C., England.

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland and Scotland, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries 12s.; in advance.
3. ADVERTISING RATES.—Single insertion, 25 cents per line, agate. Contract rates furnished on application.
4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrearages must be made as required by law.
5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrearages are paid and their paper ordered to be discontinued.
6. REMITTANCES should be made direct to us, either by Money Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible.
7. THE DATE ON YOUR LABEL shows to what time your subscription is paid.
8. ANONYMOUS communications will receive no attention. In every case the FULL NAME and POST-OFFICE ADDRESS MUST BE GIVEN.
9. WHEN A REPLY BY MAIL IS REQUIRED to Urgent Veterinary or Legal Enquiries, \$1 must be enclosed.
10. LETTERS intended for publication should be written on one side of the paper only.
11. CHANGE OF ADDRESS.—Subscribers when ordering a change of address should give the old as well as the new P. O. address.
12. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve THE FARMER'S ADVOCATE AND HOME MAGAZINE, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
13. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.

ALASKA - YUKON - PACIFIC EXPOSITION.

It is the modern fashion for ambitious cities to try to get into the world's-fair class. Seattle, Wash., is now arranging for a display called the Alaska-Yukon-Pacific Exposition, to be held from June 1st to October 15th, 1909. Uniqueness, originality, are nowadays considered essential to the success of such commonplace events as world's fairs, and, accordingly, Seattle's press-agent comes forward with two exceptional claims. One is that the management is determined to live up to its promises, having everything in readiness on the opening day. The other is that no grant or loan will be asked from Uncle Sam to carry on the work. Former expositions have been aided by the Federal Government in many different ways. Outright gifts of large sums of money have been made by Congress to some world's fairs, while others have negotiated loans from Uncle Sam, some of which were paid back, and some of which were not. Some expositions have received both donations and loans. Since the United States Government began to patronize expositions, down to the Jamestown Fair, Congress has appropriated a total of \$28,752,251 for world's fairs. Only \$485,000 of this money has been spent west of the Rocky Mountains, the Lewis & Clark Exposition receiving the benefit of that amount.

The Alaska-Yukon-Pacific Exposition wants nothing that can be called a loan or a gift. All it asks is an appropriation from Congress of \$1,175,000, to enable Uncle Sam to take advantage of the opportunity for "effective advertising," the money to be expended as follows: Government building \$200,000, exhibit \$350,000; Alaska building \$100,000, exhibit \$200,000; Philippines building \$75,000, exhibit \$75,000; Hawaii building \$50,000, exhibit \$75,000; Fisheries building \$50,000.

It is intended that the exhibit palaces shall be permanent structures. The grounds are located

on the property of the Washington University, a State institution, and, after the Exposition is over, the substantial buildings will be taken over and used for educational purposes.

The purpose of the Exposition is declared to be the exploitation of Alaska, Yukon, and the countries bordering on the Pacific Ocean. Of course, Uncle Sam will not be able to resist the opportunity for "effective advertising." It is a most seductive name for a grant.

AN INDEX TO THE CHARACTER OF THE PEOPLE

I am very grateful for the healthy tone you have given your magazine. I feel proud of "The Farmer's Advocate," for nothing, I think, is so clear an index to the character of a people as the periodicals they support. Very many, too, of your readers, are doubtless thankful with me for your able help in the feed troubles. Feed is not at all scarce in our county, but those of us who have never been to the Agricultural College should be eager to learn all we can about wise and economic feeding, and I was very much pleased with your "Some Principles of Economic Stock-feeding." It practically answered a lot of questions suggested by your last year's "Questions of the Grain Bin," and which I was tempted to hurl at you. I must thank you, too, for the Home Magazine Department, on behalf of my family. I recognize it as a very important part, too.

Prescott Co., Ont. GORDON L. LAMB.

LESSENING THE STRESS ON EXAMINATIONS.

We have been favored with an advance copy of a circular issued by the Minister of Education for Ontario to Boards of Trustees, Inspectors and Teachers, explaining that henceforth the Department proposes to reduce the stress upon examinations in Public, High and Separate Schools. In 1904 a regulation was issued providing that, in High Schools approved by the inspectors, candidates for non-professional certificates might be admitted to examination without examination in Reading, Bookkeeping and Business papers, Art and Elementary Science. The above regulation was intended to improve the situation in the High Schools, and with the improvement in the public schools, also, in view, a similar change was made in the provisions for the High-school Entrance Examination.

This regulation, the new circular states, gave the teacher more freedom, and reduced the examination stress during the first two or three years of the pupil's course beyond the fourth form of the public school, but even in these respects was only a partial means of reform. We quote the circular somewhat at length:

"Complaints have, indeed, increased of late, that, in very many cases, the products of our Secondary Schools do not possess what have long been regarded as the essentials of a practical education. They are too often poor in Spelling, Penmanship, Reading, and Letter-writing; and in the elementary operations of Arithmetic they are lacking in speed and accuracy. These complaints are well founded. Even if the Department and University examinations were suitable for pupils intended for commercial and industrial pursuits, which they are not, the examination test in the foregoing subjects is quite inadequate. With so many examination centers, there could be no adequate test of a candidate's ability to read, and, in any event, it would be regarded by the public as unjustifiable to reject him; that is, to put him to an additional year's labor and expense because he was a poor reader. So, too, if his Spelling or Penmanship were poor, or his Letter-writing lacked the proper form, or his Arithmetic answers were inaccurate in details. In Arithmetic, indeed, under our system, he might obtain high marks from the principles of the problems, even if all his answers were inaccurate in other respects. Accordingly, as has already been announced in Circular 19, the Education Department proposes, as a step in the regeneration of the system, to conduct the examinations for entrance to the training schools for the sole purpose of testing the competency of candidates for teachers' certificates; and to extend the 'Approved School' system to the subjects of Writing, Spelling, Arithmetic and Mensuration, English Grammar and Geography. As a consequence, henceforth the examination stress will be removed from all the Lower-school subjects, the special preparation of the intending teacher will be transferred to the training schools, and greater freedom will be given the Secondary School staff during the first two or three years of the

pupil's course, when such freedom is most needed. A thorough academic course is now provided in the Normal Schools, and no candidate will be allowed to pass the final examinations without a competent knowledge of all the subjects he will have to teach in the Public Schools, including, of course, Geography, English Grammar, and Arithmetic and Mensuration. As far as practicable at present, the same provision has been made in the Faculties of Education, and the same provision will be made in the Model Schools of the future. It is also the policy of the Education Department to increase the importance of the teacher's personality, and, in this way, to allow the formation of character to become the main function of the schools. Moreover, subject to judicious Departmental control and direction, it is the aim of the Education Department to place upon the Trustees and the Teachers the responsibility for providing, according to local needs, the education for his life-work which every pupil has the right to receive. AS A RESULT LARGELY OF THE DOMINANT EXAMINATION INFLUENCES OUR SCHOOL SYSTEM HAS FAILED TO TAKE SUFFICIENT ACCOUNT OF OUR ECONOMIC CONDITION. WE HAVE EDUCATED TOO MANY FOR CLERICAL AND PROFESSIONAL PURSUITS, IN WHICH THERE IS LITTLE ROOM, AND TOO FEW FOR INDUSTRIAL PURSUITS, IN WHICH THERE IS ALWAYS ROOM. THE FUTURE OF ONTARIO DEMANDS THAT THIS SHALL CEASE.

"The 'Approved' School scheme of 1904 did not fully realize the expectations of its promoters. Diversities of standards and laxity of administration resulted from the inadequacy of its provisions. The appointment, in 1906, of an Inspector of Continuation Classes, in addition to the Inspectors of High Schools, has removed the main defect in the machinery. The new scheme will, accordingly, be carried into effect by a small number of Inspectors, who will confer together from time to time, and who are controlled by and are directly responsible to the Minister of Education. In this connection, it may be noted that, in 1909, when the scheme goes into full operation, the Normal Schools will not reopen until the last week in September. Candidates from non-approved schools will, accordingly, have ample time to review the subjects for the September examination of the Normal Schools and the October examinations of the Faculties of Education; and the postponement of the examinations from the close of the Lower-school course until these dates will relieve from immediate pressure the Lower School of non-approved schools. In explanation, it may be added that, beginning in 1909, the members of the staffs of the Normal Schools will hold Institutes of Instruction for Public-school teachers during the month of September in the counties and districts of the Province."

"Approved Schools" are then defined in the regulations, and the following explanatory paragraph added:

"When, at his regular visit, the Inspector finds the school equipment adequate, the staff competent, the organization acceptable, the timetable suitable, and the pupils' work satisfactory, he is justified in assuming that, given the teacher's honesty and zeal, the final preparation of the pupils will also prove to be satisfactory. Be it noted, also, that, at the discretion of the Inspector, a school may be paid a second visit during the year. With special ability on the part of a pupil or a teacher, or of both, schools which, from the point of view of equipment and organization, fall below the prescribed standard, may, it is true, also produce satisfactory results. But, at his visit, the Inspector is not in a position to pronounce upon the situation; and, for testing such results, an examination has necessarily been provided."

The effect of this departure is to practically do away with the stress of examination in the Public and High Schools, though increasing it in the Normal Schools, by requiring academical as well as professional examinations. It might be desired that the stress could also be lessened in the Normals, but the Department evidently does not deem it wise to take the risk of allowing teachers to pass through the Normal Schools without making sure that they have a sufficiently thorough training in the subjects they are to teach.

The circular concludes as follows:

"The Minister of Education regards the present extension of the Approved-school scheme as a most important step in advance. He confidently counts upon the sympathetic co-operation of all who know what education really is, and he hopes that the success of the scheme will justify him in extending it still further in both the High Schools and the Public Schools. The personality of the teacher, he believes, should become a far more important factor in the adaptation of our schools to the necessities of the Province. The examination holds an important place in any well-ordered system of education; but a system which depends

mainly upon the stimulus of examinations conducted by outsiders, and dwarfs the teacher's sense of responsibility, cannot build up the character of our youth or prepare them for the diverse duties of life."

These are fair words. The recognition of the fact that our educational systems have not been adapted to our economic requirements, and also of the further most important fact that character-building should be the prime object in every school; the desire to reduce the excessive stress which our system has, in its working out, tended to place upon examinations, while at the same time seeking, by efficient and well-organized inspection and normal training, to maintain the standard of work in the schools, are all worthy objects. If they can be effectively accomplished, there will be nothing but commendation for the new regulation. Time will tell. Results will depend upon the earnestness of the Department in administering its policy. There is, of course, much more to be done. School-gardening must be generally introduced, manual-training further promoted, the text-books revised, and the whole curriculum of the schools recast. As an initial step, however, the above regulation promises well. Meantime, congratulations and best wishes.

NOTES FROM IRELAND.

OUR BOVINE HUNTERS.

A great deal has recently appeared in the papers regarding the up-to-date method of protesting against the letting out of land for grazing purposes, familiarly styled as "cattle driving." In some districts, if a man rents land under the eleven-months' system, he never knows what morning he may waken up to find his animals all in his front lawn or farmyard, driven there off the fields by people who disapprove of that way of using the land. The practice is pretty generally condemned, and one of our members of Parliament, who took an active part in organizing "drives," is at present placed beyond the reach of doing mischief either to himself or to others for a period of six months, in one of our Dublin jails. He will doubtless be enshrined as one of our national martyrs. However, since his committal, there seems to have been a lull in the enthusiasm of the "drivers." That it is a iniquitous system, and should be put a stop to, are the opinions of all right-minded people. In itself it seems a senseless practice, and would be thought of merely as such, only that its continuance and spread must exercise a very baneful influence on the great store-raising industry which is so very important to this country. The Government, judging by the speeches of some of its

Ministers, do not seem to consider it in a serious light, but it is so difficult to understand their Irish policy that it is not surprising that stringent measures to suppress what is really wrong do not commend themselves. Mr. Birrell, the present Chief Secretary, is a man whose abilities are variously estimated. By some of his admirers he is lauded as a skillful and powerful politician, while, by an influential and extensive section of the population he is the object of mock respect as one of the most magnificent muddlers that ever tried to control the intricacies of the Irish Government. So, you see, we have some interesting times ahead of us, and perhaps it is a wise provision of Providence that what is to come is hidden from our eyes. It might be either too serious or else too ludicrous. Time alone will show.

IRISH FAT-STOCK SHOWS.

Fat-stock shows, judging by their paucity, are of much less importance to us in Ireland than they are across the Channel. We have only two or three, and the principal of these is that held at Ballsbridge, under the auspices of the Royal Dublin Society. It was held during December, but it did not seem to attract as much attention as could be wished; certainly nothing to compare with the excitement aroused by the same Society's cattle and horse exhibitions earlier in the year. Yet, in some respects, it was better than its predecessors. The entries were more numerous, and the animals, both cattle and sheep, showed better feeding, finer finish, and more uniformity as regards early maturity—all three objects encouraged by such fixtures. The champion beast was a very shapely, well-meated steer, got by an Aberdeen-Angus bull, out of a Shorthorn cow—a cross which is very popular and successful in Ireland. Reserve for championship was a very neat Shorthorn heifer, which had to her credit an average daily gain of 1.98 pounds, as compared with 1.86 pounds, the daily growth of the champion at the London Smithfield Show, and 1.7 pounds, the rate credited to the Aberdeen-Angus that took the supreme award at the Edinburgh Scottish National. The roots that were shown at Ballsbridge displayed the effects of the season's severity, but of butter there was a really excellent display.

STATE AND MUNICIPAL FORESTRY.

My last letter had a few words to say about the prospects of something being done for forestry. An important gathering, held in Dublin lately encourages me to say that the outlook is improving. Unless the Treasury proved obdurate and unyielding in the matter of cash, our woods have every likelihood of being, in the future, more carefully guarded and systematically extended. The meeting referred to above consisted of the chairmen and vice-chairmen of the thirty-two Irish county councils, who assembled on the invitation of the Departmental Committee to discuss some important matters. The meeting unanimously expressed the opinion that it was a matter of urgent public importance that measures should be taken by the State for the preservation of the existing forest areas in Ire-

land, for the acquisition of land suitable for plantation, and for the development generally of a systematic scheme of national afforestation. A very important discussion took place as regards the advisability of entrusting the management of the smaller local woods which are passing from the hands of private owners within the counties to the county councils, and it was unanimously resolved to approve of this idea, expert advice and supervision to be supplied from a central body. It is particularly satisfactory to see such an influential assembly displaying whole-hearted sympathy with the Forestry movement, and indicating the unanimous readiness of the country to do whatever can be done to help forward the patriotic cause of tree-planting.

PLOWING MATCHES IN JANUARY.

Throughout the month of January plowing matches have been held all over the country. These events have been increasing rapidly in number, and are distinctly useful. Of course, their value could be enhanced if the promoters arranged for experts to lecture and demonstrate on the day of the match, and if other items of farm work, such as digging, trenching, hedge-trimming, etc., were introduced into the programme; but in time we may witness these and other desirable developments effected. A returned American has been endeavoring to point out to Irish farmers the advantages of the all-round method of plowing, as compared with the more common practice here of plowing in sets up and down the field. His views have excited some interesting discussion in the columns of the leading agricultural paper in Ireland, and the general opinion seems to be that, while the all-round plan might work in land unconfined by fixed boundaries, it would be very unsuitable in fields of irregular shape enclosed in by fences, as it would be almost impossible to finish even at the ditch if a commencement was made in the center of the field, or to be sure of arriving in the middle if the start was from the outside. In an even, square field it might save time. Some assert that it would, but the matter has yet to be tested. "EMERALD ISLE."

BEST FOR THE MONEY.

I received the knife as a premium for one new subscriber, and am more than pleased with it, for it is far better than I expected. I wish you every success in the New Year. I have taken your paper for eighteen years, and the more I read it, the more I like it. I shall try to get you more subscribers, if possible, but I am pleased to say all the farmers round here take it. "The Farmer's Advocate" is the best we can get for the money.

ROBERT HARVEY.

Maisonneuve, Que.

I feel very grateful for what you have done for me, and wish you every success for this new year. Although only a subscriber of your paper from last March, I find I cannot do without it. Find enclosed my subscription for another year.

Dundas Co., Ont.

OWEN COUGLER.



A Tree-lined Driveway on a Saskatchewan Farm.

HORSES.

SECOND-PRIZE EXPERIENCE CONTRIBUTION.

By Charles Dunlop, Carleton Co., Ont.

In response to your invitation to farmers, in a recent issue of "The Farmer's Advocate," for their experience in raising, breaking and selling colts, I might say at the outset that, as I have less than 100 acres of land, my remarks or experience is not likely to be over the heads of the ordinary farmer. I have had 30 years' experience with colts, but, to keep this article from getting too long, and as the prices for horses were not very interesting prior to 1900, I will not go back beyond that time.

I always aim at having a good horse to sell every year; some years I sell two. To do this, of course, there must be a foal raised every year; some years, two foals.

On a farm this size, and where from 20 to 25 head of cattle are kept, one foal a year is about enough, as that means on hand a foal, a yearling, a two-year-old, a three-year-old, a four-year-old and a five-year-old, until he is sold. The market calls for them five years old and over. Of course, they can sometimes be sold younger. It is also well known that, after one has done his best, some years there will be no foal at all. In that case I fill the gap by buying one. It often happens that one can be bought quite as cheaply as it can be raised.

My experience in raising colts has been altogether with draft horses (the Clydesdales), and there is money in it if it is rightly gone about. It is the height of folly to use anything but a sound mare, of good conformation, for breeding purposes, as like begets like. The stallion must also be sound and well built. I am not anxious for an overgrown stallion, but I like good quality, good action, an intelligent head, and a well-muscled neck; in short, as many good points and as few bad ones as possible.

As already stated, I aim at having a good horse to sell every year. This I have accomplished, and more, as the following list will show. In the last seven years I have sold ten horses for the sum total of \$2,080.

January, 1901, sold a mare for \$195; January, 1902, sold a mare for \$200; January, 1903, sold a gelding for \$215; August, 1904, sold a gelding for \$225; January, 1905, sold a mare for \$200; April, 1906, sold a mare for \$280; March, 1907, sold a span for \$575. Total for above eight, \$1,890; average, \$236.25—all being above five years old, and sound. And an old team sold in 1906 for \$190, making a total of \$2,080, with six on hand of good quality.

As to how the colts were fed, and what they cost, I regret that I have no figures to show what they cost to feed, as everything they consumed was grown on the farm. Of course, they are on grass about six months in each year; that would be worth \$1.50 per month, or \$9.00 for the season. In the winter, when hay is plentiful and cheap, they are fed mostly on hay, with a little oats and roots; when there are no roots, they get a little bran, instead. When hay is scarce, they are fed oat straw and turnips, with oats enough to give them an inclination to play a little when they are turned out into the yard (which should be every day when weather will permit). I always think if a colt won't play a little when turned out, it is not getting feed enough for best results. I might say that the straw is fed long and the turnips whole. It might be better if they were cut and mixed, especially if the straw is of poor quality; but if the straw is harvested a little on green side, and got in in good condition, I question if there is enough in cutting it to be worth the trouble and expense. I should say the foal invariably gets hay the first winter, and about two quarts of oats, with a few handfuls of bran mixed in, three times a day. He should have a clean, warm, well-ventilated box stall, and, if he can have some cow's milk night and morning, he will make rapid gains.

My experience teaches me that there is as

much in having the colts or horses comfortable, and fed and watered regularly, as there is in the quantity of feed consumed. If they are not comfortable, the feed is used to little or no purpose. My colts are kept in box stalls in a stone-basement barn, and are watered inside. They drink at will from water basins in their stalls, the water being supplied by a windmill. This barn is warm and well lighted, being almost as light inside as out. While this barn is very comfortable, and decidedly convenient, I would like to say to the beginner that expensive barns are not essential to raising good horses. Make the old ones warm, and put in a few windows. Sunshine is the cheapest medicine you can give any animal.

To fatten a horse for market in the shortest time, I have never found anything to equal boiled peas. A good-sized pot, half-full of dry peas, covered with water, and let boil until soft, will swell to fill the pot. Give half of this quantity while still a little warm for his supper, with some bran mixed in, and the other half for his breakfast, with a feed of oats at noon, and as much good hay (I like the hay well mixed with clover) as he will clean up. Keep salt in a separate box, where he can reach it at will; I never mix salt in a horse's feed; the horse is the best judge of how much salt he requires, but he does require it to aid digestion. My experience has taught me that, to make a horse do his best, he must be thoroughly groomed twice a day. I like the corn brush for this, for it will usually do the work without the currycomb. Never irritate a horse with a currycomb; use it to clean the brush. With a well-bedded, comfortable stall, the above treatment should give good results.

bring him on his knees; if he struggles, hold tight on the line. He cannot stay in this position; he has got to lie down. Now pat him and talk kindly to him, and sit down on him. Slack the straps and let him up, and put him down again. He will get up decidedly sheepish-looking. Put him to work now. I never saw one that would not go to work quite humble after this treatment. Should he show any inclination to switch, tie the tail around to the side of the harness. There are other methods of laying a horse down, but this is sure to bring him down, no matter how strong or contrary he may be.

You also suggested articles on the treatment of wounds. For barb-wire cuts and wounds, I have used the following, with very gratifying results: Get at a drug store a box of bichloride of mercury (corrosive sublimate) tablets; they cost 25 cents. Put one tablet in a quart of soft water; it dissolves readily, and is ready for use. Clip the hair close around the edges of the wound, and remove any dirt or foreign matter. If the cut is in a location where it can be covered, take a piece of muslin and saturate it in the solution, and place on the wound. Cover this with cotton, also dipped in the solution. The idea of this is that the muslin will not stick to a wound like other material, and the cotton is supposed to be better to keep out the germs. This solution is supposed to be the best-known germ killer. This is also the right thing to dress the foal's navel with to prevent joint or navel ill. Where a cut cannot be covered, keep wet with the medicine as often as possible. I have used this treatment for six years for foals, and never had a case of joint-ill. I have used it for the same length of time for cuts and wounds, having treated some very ugly cuts on my own horses and on my neighbors'. They all healed quickly, without leaving the slightest trace of a mark.

The secret of this treatment is that nature will heal the cut, if we can keep the germs out. It is the myriads of germs that enter the wound that cause irritation, inflammation and suppuration.

As to the question, what have I learned from my experience, I would say that I have learned to use nothing but a registered stallion, and the best procurable, at that. I learned to sell the older mares, and breed from the younger and better-bred ones, until they are graded up now and registered. I learned that, to make a real, true-pulling horse, one should never put more load on him than he can draw when he is young, or any time; he gets to thinking he can't be stuck, and it is well to keep him thinking that. I have learned that there is pleasure in raising good draft horses, as well as profit. I have learned that the best place to sell a horse is at home. Don't drive him to the city, if you can induce the buyer to come out. And don't try to sell to a hungry man; see that he gets his dinner.

And my advice to farmers is, raise draft horses and read "The Farmer's Advocate."

CANADIAN VS. IMPORTED SIRES.

Editor "The Farmer's Advocate":

In reopening this subject, I fear there is little new material for one to work upon, if we are to judge by the number of letters that have been published through the courtesy of "The Farmer's Advocate," but we will agree that there is always something yet to be learned. In the first place, I raise the question, Why have a few men tried to run the horse business in Canada? Of course, everyone has a right to his own opinion, and I venture to say that four-fifths of the farmers of Canada will agree that in the word "speculation" is found the answer. The question then arises, Who is speculating? and we answer, the importers of horses, who bring them out by the dozen, and then advertise a "great auction sale," each one being described a prizewinner, or the son or daughter, or more remote descendant of a winner at some big show in the Old Country. Well, when we go and see them, what do we find? As a general thing, perhaps, a good one or two in a bunch of twelve or fifteen, and they are sold at prices far beyond what Canadian-bred horses having an equal number of registered crosses would bring, and, we presume, at a profit, else the business of importing would not be continued. But, wait a year or two and see the produce of some of these highly-vaunted animals with an "imp." affixed to their names, and two or three registered ancestors on each side. That is what the farmer has to look to, and that is where I claim the Canadian-bred horse should not be discounted. We can go almost any time and see for ourselves what the Canadian-bred stallion we are about to use has been bred from, and whether his dam or sire were subject to any unsoundness or bad habit of hereditary nature. I don't mean to say I would not use an imported stallion, but what I do say is this: If I had the choice of an imported or a Canadian stallion, both sound, and equal or nearly so individually, I would prefer the Canadian, for the reasons above mentioned, and others. First, I believe the horse or other animal will grow and develop best in the country



Percheron Stallion, Vatel 49729 (59623).

Imported by and the property of Dunham & Fletcher, Wayne, Du Page Co., Ill.
A typical animal, and representative of their February 5th, 1908, importation.

As to the handling of vicious horses, I must say that in all my experience I never owned one. I believe that vicious horses, as a rule, are made, not born. Where colts are properly treated from their youth, a vicious case will be very rare indeed. Teasing or playing with colts or horses, or whipping, is responsible for most of the vicious horses. I consider it bad practice to pet colts, unless the colt is very timid; it will likely make them quite bold and self-willed. My method is to treat them kindly, without undue familiarity. If I had a vicious horse, I would try kind treatment on him. I certainly would not whip, for this is sure to make bad worse.

It sometimes happens, when young horses are first put to work (especially if they have not been broken until near maturity), that they will act ugly or rebellious. This is oftener the case with mares than geldings. They will work themselves up into a nervous state and switch and kick. In a case of this kind, never whip. But it is necessary to show a colt of this stamp who is boss. A good way to do this is to tie up the left front foot to a strong girth around the body, walk him around for a few minutes on three legs; buckle a strap around the right front foot with a ring on it; fasten a line to this ring and bring it up over his back to the left side and down and through the ring. Take hold of this line and step him ahead, and, as soon as he takes the weight off the foot, pull on the line. This will

where it has been bred and raised. It gets naturalized to the climate from the first, and does not have to undergo the change incident to going from one country to another; and where is there a more healthful climate than our own? In the second place, suppose a man imports a mare in foal, and the man who buys her has good luck and raises a stallion, is that stallion any worse for being born on this side of the water? Certainly not, and, as I have said, I believe he is all the better for his being born on Canadian soil. For instance, take a look at the stock from Canadian-bred and imported horses, and which sells the best in the market for heavy horses? In this country, we find that some of the very highest-priced horses that have been sold were got by Canadian-bred sires.

In the next place, why should a few dealers who bring out horses, say, in effect, to the rest of us, "You must use imported horses," which is practically the aim and effect of their agitation for a stallion inspection and license law in the interests of the few? If farmers do not combine and emphatically protest, the man who has a good sound Canadian horse will have little chance of a fair show, since the clique and their friends will have the inside track in the naming of the inspectors. We don't need to go further than our own county fairs to see the get of Canadian-bred sires carrying off the ribbon of red. Why are a few importers going to be allowed to combine? If this is permitted in the case of horsemen, why not in the case of our breeders of cattle, swine and other stock. Why has one body of men got such a grip on the Government that they are invited to follow the Scripture admonition, "Ask and ye shall receive"?

In conclusion, let me say to the Canadian farmer. Who knows your business better than yourself? Don't be led away with any gold-brick story, for you will find them among horsemen as well as elsewhere, but use your own judgment; and if a brother farmer raises a good Canadian-bred stallion, and you know his breeding, and he is satisfactory to you, stay with him and encourage him. Let us stand shoulder to shoulder, and keep our business for the masses, and not hand it to the classes.
J. C. H.
Peel Co., Ont.

A FIRST ATTEMPT.

I received your letter last night, with express money order for \$10 enclosed, being awarded me for second-prize essay in Horsemen's Experience Competition. Please accept my sincere thanks. As it was the first-time I had written anything for publication, the result was very gratifying to me. I will always speak a good word for "The Farmer's Advocate."
CHAS. DUNLOP.
Carleton Co., Ont.

LIVE STOCK.

ANOTHER WORD FOR THE RECORD-OF-PERFORMANCE IDEA.

Editor "The Farmer's Advocate":

Any Shorthorn history that fails to provide for a Record of Dairy Performance would be incomplete. That statement, of course, at once raises the whole question of the milking Shorthorn, or, to be more strictly correct, the beef-and-butter cow. Here one must take issue with Professor Arkell in his Christmas article, "A Canadian Sees the English Cow," for it appears to me that the Professor studiously built up a straw bovine for the playful purpose of knocking it down, when he reiterated, on page 199, the quotation of Mr. Carr, that, "not more than one cow in a hundred will put flesh on her back and milk at the same time," a claim, by the way, we do not believe was ever made by any reputable person for the breed in its dual-purpose capacity. If one is permitted to stray outside Shorthornism for an extra illustration, let us refer to some recent literature on the Red Polls, whose claim to dual-purpose qualities is not yet contested to any great degree, perhaps because it is not yet recognized by the ultra-breeders of the beef or dairy type of cattle. Why the Red Polls should be accepted as a breed with a dual purpose, and not the Shorthorn, is strange, yet not altogether difficult to understand, because the real onslaught on the Shorthorn began at the threshold of the country which it, in its dual-purpose capacity, was especially fitted for, namely, the great middle West of the Northern half of the American continent, comprising the following States and Provinces: Minnesota, the Dakotas, Kansas and Nebraska, and Manitoba, Saskatchewan and Alberta. This onslaught was led and engineered by Prof. Haeccker, of Minnesota, and ex-Gov. Hoard, of Wisconsin, and was unfortunately accepted as true gospel by many farmers in Wisconsin and Minnesota, to their ultimate sorrow and loss, and was unconsciously helped by

the breeders of patchy, steery-looking females, oftentimes sterile, the result of the pedigree and family craze. It is the only breed that can make way against exclusive wheat or corn-growing; it accompanies the growing of legumes and the rotation of crops; the silo; and the other breeds are then able to follow the blazed trail.

This digression, however, must go no further just now, as opportunity says this is the time to impress upon members of the Dominion Shorthorn Breeders' Association the need for records of milk performance, and the encouragement by financial aid, in the form of grants to such performances, and for milking Shorthorns at the shows. Here, again, we find the British and U. S. associations have gone ahead of us, although we doubt if in either country has Shorthorn blood quite the preponderance over that of other breeds that it has in Canada. When referring to developing a market for the Shorthorns bred, in the average herd, the ability to milk well (one of the qualities of the breed now in abeyance) was not given as one of the reasons for the lack of interest shown by the average farmer in the breed. This lack of interest is undoubtedly due to the farmer's observations. He has noted at the shows the nurse cows for the calf aristocrats, their milkless dams, and sterile females without normal udder development; he has also noticed that some Shorthorn breeders keep a cow of no breeding to supply the house with milk and cream. Is it any wonder that the market is sometimes slow for the fifty to one-hundred-dollar Shorthorn bull? As a business proposition, therefore, the Dominion Shorthorn Breeders' Association must concentrate more attention on the milking abilities of its favorites, even if a slight estrangement from the all-Scotch ideal is the result.

It was asserted in a previous article that the great business need of the Shorthorn breed so-



Pair of Yorkshires.

Under twelve months old. First and breed cup in class, and champions over all breeds in the Show, Smithfield, London, England, 1907.

ciety is to help the small breeder sell his bulls, and one way was suggested; but the campaign must not end there, or it will be one-sided. By fostering the milking qualities by means of Records of Performance, milk tests at shows, and classes at the shows for milking Shorthorns, it will be impressed upon the owners of grade herds, who are intending to purchase pure-bred bulls of some breed, that they will make no mistake in selecting from the roster of the Red, White and Roans. If the demand is made good for the bulls at the bottom, we need never fear unremunerative prices for the uppercrust.

"HOMECROFT."

BABY BEEF ON TORONTO MARKET.

The most economical beef to raise and sell, and the most satisfactory to buy, is that from cattle one to two years of age, that have been well fed from birth to block—never been permitted to lose their calf flesh. Especially where skim milk forms a small part of the ration, such heaves produce the very spiciest and tenderest of steaks, and are bound to cut a larger and larger figure in our local meat markets. In this connection, the opinion of the Harris Abattoir Co., of Toronto, in a recent letter to this office, is significant:

"You ask us our opinion in regard to baby beef. There is more satisfaction in handling choice beef of this class than any other. It always pleases both the retailer and the consumer, and we could sell any quantity of it—providing the quality is good—to the family butchers who cater to the best trade. An epicure might per-

haps say that it lacks the real flavor of the roast beef of Old England, but our opinion is that the great majority of consumers prefer it to any other class of beef."

PIG BREEDING.

There is every probability that the supply of hogs for the market next summer will be short, and prices high. Owing to the scarcity and high price of feed, many breeding sows have been sent to the butcher's market, and the stock of pigs reduced to a lower limit than usual; and, unless the coming spring proves unusually favorable for the expected litters, there is sure to be a shortage of suitable shoats for the packing-houses. As a rule, April is a safe month in which to have the litters come, as they need not be long confined to close quarters, and are much safer to thrive if allowed to run out on the ground for exercise in fine weather. The period of gestation in the case of the sow is generally sixteen weeks to a day or two, no other class of stock producing so nearly within the allotted time. To facilitate the service where a large, heavy sire is in use, or, indeed, in any case, whether the boar be large or small, a breeding crate kept in his pen is a great convenience and saving of time, and those who have adopted it would not think of doing without it. As a rule, one service is sufficient, and as effectual as more, though, in the case of sows that have proved difficult to settle, a second service at a later day of the period of heat may prove successful. The sow, after service, should be kept quiet in a pen alone for a day or two, or until her heat has passed.

Success in securing strong litters depends largely on the treatment of the pregnant sow. Regular exercise, and plenty of it, is essential, and to this end the feed should be, to some extent, whole grain, scattered upon the ground or upon a plank platform, to keep the sows on their feet. A raw mangel or sugar beet thrown on the ground to scoop, will also tend to keep them employed. Cold, sloppy feed fed to the sow is believed to have a bad effect on the pigs she is carrying, and, if meal is fed, it is safer to give it dry, the water or swill being given in a separate trough. A mixture of pulped mangels and cut clover or clover leaves, with a little meal sprinkled over it, is ideal feed for a brood sow.

A dry bed in an open shed, or one with an open door to the barnyard, where she can go out at any time, is a better arrangement than keeping the sown in a close pen where regular exercise is not easily available. If a litter is due to come in the winter months, provision should be made to secure sufficient warmth. The sow should become accustomed to her quarters a couple of weeks before she is due to farrow. If the pen is not considered warm enough, it may be improved in that respect by putting up extra studding by the outer walls, tacking rough lumber on them, and filling in between with straw or horse manure. A second covering overhead of a temporary character will also help to make the place warmer. The sow's feed at this time should be relaxing, in order to avoid constipation. Roots and bran slop will tend to keep the bowels open. The bedding should be of dry, short straw, and not too plentiful. It is well to keep watch over the sow when her time is up, and to see that the little ones do not get away from her side. As a rule, it is not wise to interfere more than is necessary with the sow, but if she is restless, and gets to rising often, it is well to have a basket at hand, covered with a blanket, in which to put the pigs till all are born and the sow is quiet, when they should be placed beside her, and, if necessary, helped to find the needed nourishment. The sow should not be disturbed for feeding for twelve hours after farrowing, and only a warm drink of bran slop given. Her feed for the first two or three days should be light, and gradually increased.

ROAD ARTICLES WORTH TEN TIMES THE MONEY.

Please send your valuable paper for this year. It is a credit to any country, and your articles on road management are worth ten times the money.
Nanaimo, B. C. C. BAZETT.

SHORTHORNS AS MILKERS.

Editor "The Farmer's Advocate":

On looking over your issue of Jan. 23rd, I found some articles re milking Shorthorns. My experience has been that we can raise Shorthorn cows to be good milkers. A friend of mine had three cows he purchased for about \$900. He at first sold six-months' calves at \$200 each. Then there came a lull in the storm, prices went down, and so did the cattle, as to condition and feed. In the third generation, to my certain knowledge, a lot of the cows became remarkably good milkers; they were in no better condition than an ordinary farmer should keep his cattle. My idea is, from what I have found out myself, that if we stuff a calf for show purposes, that calf will make a poor milker. We should grow plenty of turnips, and feed the young stock with pulped roots and straw, with a little hay. In Canada we use too much grain. I have some young cows now that are good milkers, and fairly good size. The Scotchmen know more than we do about cattle and horses. I have an old friend, a Lowlander, from whom I get some inspiration. I asked him one day how they raised the Clydesdale horses. He said on turnips and oat straw, and out most of the time on pasture. "But," I said, "how in the world do you get them in such condition as we see them here?" "Eh, man," he said, "when we want to sell, we get them ready for you." A Shorthorn calf can be raised to be a good milker. W. F. York Co., Ont.

FROM THE FARMER'S STANDPOINT.

Editor "The Farmer's Advocate":

As one of the great majority of farmers who keep cattle for commercial purposes alone, leaving the breeding of fancy stock to others, I would express my appreciation of the way you have been stirring up the Shorthorn breeders lately for their neglect of the milking qualities of the breed. Great dissatisfaction has resulted from following the advice usually given to those who wish to raise beef cattle, to use as sires pure-bred bulls only of one of the beef breeds. That has meant use pure-bred Shorthorn bulls, as practically no other beef breed was wanted or obtainable. The result has usually been to steadily lower the milking qualities of their herd. Some have sought to remedy matters by buying in cows of nondescript breeding, but with milking propensities, from their less-up-to-date neighbors, and selling to the butcher their own carefully-bred young cows. Others have cast good advice to the winds and have bred to a grade bull, sired, of course, by a pure-bred, but out of a grade dam noted for being a good milker. One farmer whom I knew, after sticking steadily to high-grade Shorthorns for many years, gave them up altogether, and invested in one of the dairy breeds. He gave as his reason that there was no money in producing beef unless the cows would give a decent mess of milk. His belief is shared by a great many farmers; probably by a great majority of them. The question with them is not only which pays the best, beef-raising or dairying, but whether there is any profit in raising beef cattle, unless the cows used at least pay their way besides producing calves. Middlesex Co., Ont. T. BATY.

ANTI-DISCOURAGEMENT OF MILKING QUALITIES.

Editor "The Farmer's Advocate":

I have read with much interest your editorial, "Considerations for Shorthorn Breeders," as it appeared in your issue of January 9th. I must congratulate you upon the stand you have taken in this matter of development, or, had I better say, anti-discouragement of the milking qualities of Shorthorn cattle. It is very certain, in my estimation, that the low prices which now maintain for Shorthorns in Canada are largely due to the neglect with which the milking characteristics of this class of cattle have been treated for the last 25 or 30 years in this country.

It is difficult, indeed, to understand how anyone breeding cattle for beef production alone could hope to make much money out of his farming operations, so long as present prices prevail for beef. Yet, since to breed Shorthorns and to be a beef man exclusively are practically synonymous to-day, the only solution of the difficulty would appear to be the giving up of the "Red, White and Roan," a most bitter cup indeed for the true lover of cattle who has once learned to know his herd. But that such small returns from milking Shorthorns as are generally expected in this country need not be considered the best that can be done, is exemplified from time to time by quite remarkable herd or individual records made by what are sometimes called dual-purpose or milking Shorthorns. Few such cattle are to be found in Canada to-day, more's the pity. That some few are still found, is explained for the most part by the persistent quality of this milking characteristic, showing how deeply it has been bred into certain families or strains of the breed.

I have visited a great many Shorthorn herds in Canada, and, while I can count on one hand the herds where a considerable proportion of the cows were of a heavy milking character, practically all the herds contained one or more individuals giving promise of heavy milk production. The development of heavy-milking qualities in any given herd would therefore depend very largely upon the retention, to some considerable extent, of the get of these heavy-milking individuals in the herd, and the publishing of records of the milk produced by individuals of this breed, as suggested in your article, would, I think, be a step in the right direction. To improve the breed along this line would, I consider, on account of the presence of a greater or less number of good milking individuals in practically all herds, be quite feasible, although more or less difficult.

That it is not impossible to find heavy-milking individuals in the breed, is exemplified by one case at least, where "Ottawa Lass," as a four-year-old, with her second calf, produced 10,760 pounds milk and 517 pounds butter in 11 months.

Wishing you success in your efforts to help the breed. J. H. GRIDDALE.

Agriculturist.

Central Experimental Farm.



Lincoln Wether Lambs.

First in class and reserve for breed cup; reserve for best pen of sheep, any long-wool breed, Smithfield Show, 1907. Exhibited by W. B. Swallow.

A LOSING GAME.

I have been much interested in the discussion on fattening hogs since Prof. Day's letter appeared in "The Farmer's Advocate." As I have done some experimenting on my own account, I will give you the facts.

1. Three pigs, four months old, average weight 75 pounds at the beginning of feeding, which was in November. Value of hogs at that time, \$12. (I could have sold them to one of the neighbors for that amount.) Bought 1,100 pounds of feed at \$1.50 per cwt., \$16.50; 5 bushels of sugar beets, 25 cents; cost of feed, \$16.75. Weight of hogs when sold, 450 pounds (average, 150 pounds each); average gain per hog, 75 pounds. Sold at 6 cents per pound—450 pounds at 6 cents, \$27.00. Value of hogs at start, \$12.00; value of feed, \$16.75; total, \$28.75. Value when sold, 450 pounds, at 6 cents, \$27.00. Loss on experiment, \$1.75.

These pigs were grades from Chester White sow and pure-bred English Berkshire boar. The pen was a new one, built last summer, frost-proof, and up-to-date in every respect, and probably as good as there is in the country. There was kept constantly before them charcoal, salt and ashes. In addition, they got about 1,000 pounds of skim milk.

Now, Mr. Editor, if there is any money in making pork in the winter, even at 6 cents, and buying feed at \$30.00 per ton, I fail to see it. The feed was corn, shorts, and feed flour. Leeds Co., Ont. W. C. R.

Occasionally a stockman reports difficulty in persuading his cattle to eat alfalfa. This certainly is unusual experience, and, when it occurs, may generally be ascribed to overmaturity at time of cutting, poor curing, or sometimes, perhaps, to an unsatisfactory condition of the soil that produced it—land receiving a constant flow of barnyard drainage, for instance. Then, again, some cows require to become accustomed to alfalfa, but soon learn to eat it greedily, preferring it to any other kind of feed. We have seen horses refuse oats for alfalfa hay.

THE FARM.

TILE UNDERDRAINS IN ROADMAKING.

Tile underdrainage is one of the most important details of road construction. It is a well-known principle of roadmaking that the drainage should be as complete as possible. The reason that all roads, even clay roads, are good in summer is that during that season they are dry. It is only when they become wet and waterlogged that they reach their worst condition. The conclusion plainly to be reached from this is that, to make good roads, we must make them in such a way as to keep them as dry as possible. One of the simplest of our means of doing this is by using ordinary farm tile.

Township councils have been slow to realize the value of tile underdraining, yet the good roads movement has made progress in this regard. Some few townships have commenced to lay tile generally and systematically, but in the majority of cases their use has been confined to wet hill-sides, which, in the spring of the year, when thawing out, would be axle-deep in mud. Tile drains laid, in numerous instances throughout the

Province, for the purpose of improving such hills, have been very generally successful, and have done much to convince road-makers as to the utility of tile-draining.

The benefit of tile underdrains may be understood by a knowledge of two facts, and the circumstances surrounding these. The first is that water, when changing into ice, expands; also, having become ice, it contracts and expands with the fall and rise of temperature, as does any other solid. Ice expands in rising from a temperature of, say, zero F., to 32 degrees. From 32 degrees to 36 degrees it contracts, and from 36 degrees upwards (in the form of water) it again expands. The expansion of a waterlogged road, known as "heaving," is a tremendous force. The rising of a road surface from four to six inches means that there is a vacuum created below the surface of the road to this extent. The soil is honeycombed and softened by the water lying in it. The result is that so commonly seen throughout the farming districts, of wagons sinking to their axles, and horses floundering in the mud.

The second important fact is that the thawing of a road in the spring proceeds from below, as well as above. Cold is negative, heat is positive; that is, cold is the absence of heat. When the atmosphere in the fall becomes cold, heat is abstracted from the surface of the soil. As the heat is conducted from below the surface, rising in the freezing earth, the congealing or hardening condition known as "freezing" sinks deeper into the earth. When, in the springtime, the atmosphere moderates, the heat of the earth ceases to pass away into the atmosphere, and, steadily rising from below, it gradually overcomes the cold condition of the ground. The earth itself does not heave, freeze or congeal, except as it contains water; that is, it is the water which freezes, not the earth.

By laying tile underdrains, water is carried away from below the surface of the road in the fall, so that it does not become waterlogged. The moisture, which in the colder season enters the roadbed and the soil, and freezes, is, therefore, of comparatively small quantity. When, in the springtime, the heat from below rises in the soil more rapidly than it passes off into the atmosphere, and the thawing process thus begins, the deep underdrains carry away the cold water in the road as rapidly as it thaws. By carrying away the ice-cold water, the warm spring rains can more readily filter through the earth and speed the thawing process. A vacuum is created for the warm air of spring to enter the ground. Tile underdrains thus reduce the quantity of surplus water in the road, and carry it away quickly in the spring.

The net result is that the road is not heaved and honeycombed by the freezing of an accumulating quantity of water within it, and the thawing and drying of the road proceeds as rapidly as possible in the spring. The chief benefits of tile underdrains are that the roads dry up more quickly in the spring, the mud never becomes so deep, a less quantity of gravel or stone is required to

surface the road, and the cost of maintenance is greatly reduced.

There is no hard-and-fast rule for the location of tile underdrains on the road. It is important, however, that they be given depth below the road surface, in order to tap and receive the greatest amount of subsoil water—just as a pail can be kept less full of water by a hole in its side near the bottom, rather than one near the top. For this reason, a tile underdrain below the open drain at the side of the road, in level land, is preferable to one laid in the center of the road, particularly if the road has been previously macadamized or given a heavy coating of gravel. To cut up this old roadbed is objectionable, and more expensive than to lay a drain at the side. Except in heavy clay, one underdrain at the side will usually do all for a road that two underdrains, one at each side, will accomplish. This, however, depends on the porosity of the soil and the distance to which the underdrain will draw on each side. On hills, or where the open drain is subject to erosion, it is better to lay the underdrain below the shoulders of the road, tapping wet and soft spots with a blind drain running diagonally into the heart of the spring or spot where the water comes to the surface. If the soil is stiff clay, or is of a character that does not drain readily, it is often advisable, and is frequently necessary, to surround the tile drain with gravel, sawdust, clean, sharp sand, crushed stone or other porous material. That, in some cases, tile drains have not been effective in drying hills, is due to the fact that the soil was a heavy clay, and that no provision had been made for increasing the attractive power of the tile by placing porous material over it. In clay soil, to fill the trench with gravel, sand, etc., is the ideal method.

Tile drains must be given free outlets. They must have a constant fall and not be irregularly laid; otherwise, the depressions will fill with silt and be blocked. In quicksand they should be surrounded with sod or sawdust. If the tile are likely to settle in the sand and become irregular, a board should be placed under them to keep them in true alignment. The size of tile used should ordinarily be four or five inches in diameter, and they should be placed at a minimum depth of two feet below the ground. An average of 2½ feet is usually sufficient. The minimum fall should be three inches in 100 feet. At or near the upper end there should be an opening to permit a free circulation of air through the drain.

RESULTS FROM EXPERIENCE.

Inquiry has been made by the Ontario Highways Department, of the clerks in a number of townships, as to their use of tile underdrains. The following extracts from their replies will be of interest:

A. G. Smillie, Clerk of Tuckersmith Township.—For the past eight or ten years we have grasped every opportunity to tile drain the side-ditches, where necessary and practicable. We, of course, have not reached all necessary places yet, but still a great deal has been done, and we find a great saving in maintaining. All our tile, so far, are in the center of road. For the past three years we have drained a number of springy hills, using 3-inch for short hills, and 4-inch if over 40 rods long. Might specially mention four drains on one of our busiest roads, which drain springy hills, and which have been a very valuable object lesson to many doubtful ratepayers. Tile are laid about 24 to 30 inches deep, covered level, and about 12 inches of crushed stone in coarse and fine layers put on. The results have been all anyone could wish for. We no longer hear ratepayers growling about the expense, which averages about 75 cents per rod. All soil was a very heavy clay loam. Before laying the tile, the roads cut axle-deep, and were almost impassable, although much material had been dumped on them. They had not been neglected for want of material in the past. The object of the tile was to dry the foundation, and thus make it solid. Cost of maintenance will be very much less than formerly; in fact, we are beginning to think it would pay to drain, not only the hills, but the whole road. Our roads are fast becoming noted for their excellence, thanks to the crusher and underdrains. We think one drain in the center of a road cut axle-deep is as good as one in each shoulder, and costs a little less.

James Anderson, Clerk of East Zorra Township.—I suppose there are some five or six miles of tile drains in this township. Of this, more than half belong to drains constructed under the Municipal Drainage Act, and some under the D. & W. Act. Nearly all are on the side of the road. Sizes range from 3-inch to 18-inch, but are mostly 6, 8 and 10 inches. A number of them were laid to replace open ditches on the roadsides, which required constant repair to keep open. They are principally in swampy lands, and have secured a good permanent bed, where it was almost impossible to keep a road in repair before laying them. Some were also laid where the subsoil was inclined to be quicksand, and these have also resulted in making a good firm road-

bed. A few hills have been tiled along the center, but with rather poor results. The side of the road is the place for tile in almost any location, with short offshoots in the hills, if necessary. In this locality the roads now require drainage more than anything else, and all our experience so far goes to conclusively prove it.

J. D. Drummond, Clerk of McGillivray Township.—Tile underdrains have been used only to a limited extent, as yet, but, where used, are giving very good satisfaction. They have been laid on springy hills, almost invariably in center of road, and on level roads at sides at bottom of grade. We consider, on springy hills, the tile should be at least three times the capacity of the water necessary to be drained, the length of drains in hills varying from 50 to 200 feet. In one case the soil was almost the nature of quicksand, the others in blue clay, with quicksand bottom. The road on hills was almost impassable before tile was laid, and the object was to remove the water from the surface of road. The benefit derived is good if it is possible to tap the spring and carry it away, but in heavy clay soils we have not found so much benefit, as the surface becomes so puddled as to prevent the water getting to the tile. In such soil, of which we have considerable in our township, we consider an open ditch at the side of the roadway preferable.

J. H. Cannon, Clerk of Brant Township.—A short tile underdrain was laid about three years ago in the center of the road (probably 18 rods). The soil was black, and inclined to be springy. The roadbed would heave with the frost in the spring, and become boggy. The road, since laying the tile, is quite satisfactory, both spring and fall.

J. B. Barry, Clerk of Elizabethtown Township.—We have what is known as the Victoria Macadamized Road running through this township. Some hills on this road were springy every spring when the frost was going out, and one in particular was impassable for teams. This one was tiled through the center from top to bottom of grade with 6-inch tile, then across to the ditch about 160 feet. This was done four years ago. The road is in good shape ever since. I believe the other hills on same road will be tiled next summer. This was a clay loam, sandy bottom.

J. B. McLean, Clerk of Vaughan Township.—About 100 rods of tile underdrains, all told, have been used on hills and places that were springy, and the soil a clay loam. We have only used 3-inch tile on several boggy hills, and on some short pieces of roadway where the ground was springy, and the results have been satisfactory. Roads and hills almost impassable have been made quite good after being drained and gravelled.

C. S. Burton, Clerk of Flos Township.—Tile has been used here in two instances. One was a very springy grade, that would, in wet seasons, be almost impassable. Two-inch tile was laid, beginning at the center of the road and extending down the grade diagonally to the side ditches. The road was then laid with about 18 inches of broken stones. The road has been in excellent condition since. The soil was clay, mixed with sand.

Wm. Lilly, Clerk of Tecumseh Township.—Tile underdrains have been used, mostly on springy hills, perhaps in eight or ten places. Tile was put in the center of the road where wet and springy. Three-inch tile were used, I think, and carried to a proper outlet, perhaps three hundred feet. We find it a benefit to the road in clay soil, as the road dries up sooner and becomes solid, but does not work so well in sand or quicksand, as the tile become useless on account of filling up with sand.

Peter F. Schummer, Clerk of Wellesley Tp.—Tile underdrains have not been used to a great extent under the center of roads, but more so on the side of the roads. The size was from 3 inches up to 10-inch. They are used in all parts of the township, mostly short drains. The soil is quicksand and clay. Before laying, the roads were bad in spring when frost came out, and the object was to keep the roads from heaving up in the spring season. Results, good.

Francis Jacob, Clerk of Logan Township.—Tile underdrains, when used on roads, are made under engineer's awards or agreements, very seldom for construction of roadways. Location of tile on roadway is at side. The size of tile varies according to engineer's order in award, the length as required by award or agreement. The class of soil varies from heavy loam to a mixed, sandy soil. Laying the drain greatly improved

the road. The object of laying the drain was to give outlet to party or parties, and improving road. Benefits resulting from the underdrains on roadway are very satisfactory, providing there is a sufficient outlet.

A. Martyn, Clerk of Huron Township.—We have a good many tile drains crossing the roads, and some draining hills; possibly a mile of tile drains on hills and along the side of the road. Hills are drained in the center or roadbed, and where tile are used on level roads they are placed at the side. Sizes used are from 3-inch to 8-inch. More or less is done every year. The drains are in clay land. The roads were wet and spongy, and the object was to make it dry and hard. Results have been very satisfactory, the object aimed at being attained.

F. Littlejohn, Clerk of Oxford Township.—Tile drains have been used on the roads of this township quite extensively for the past twenty-five or thirty years. The location of the tile drains, almost without exception, has been at the sides of the roads, varying from 12 to 18 feet from the center of the roadbed. Different sizes of tile used, from 4-inch to 12-inch, not many larger than the 12-inch; and the drains are of various lengths—from a few rods to one mile. We have all classes of soil through which these drains pass, viz., clay, gravel, sand, muck and quicksand. The general condition of the roads in the clay soil and the muck, before drainage, was very bad. The object was to carry away the water, and thus allow the soil to dry out. The benefits resulting from this drainage have been very satisfactory where tile large enough to give proper drainage have been used, and where both sides of the road have been drained properly; but where too small a tile or too little an amount of outlet has been provided, then the result has been very unsatisfactory.

A. W. CAMPBELL,
Deputy Minister of Public Works.
Toronto.

SILO SAVING ON THE FEED.

Last spring we put up our silo, and, while not yet in a position to say much about it, I know that it is saving on the feed. It is 25 feet high, 14 feet in the inside, and 10 inches thick at the bottom; then I had it drawn in as it went up, and we left it 6 inches at the top. The reason I built a cement-concrete is because I think it is saving on the feed, and I think it is there for a good many years. It did not cost us a great deal, because we had our own gravel. It cost \$105, everything complete.

Elgin Co., Ont. WILSON WARNER.

THE DAIRY.

COMPULSORY GRADING OF DAIRY PRODUCTS.

While the agitation for compulsory official grading of dairy products in Canada as they do it in New Zealand, which agitation "The Farmer's Advocate" opposed in a fairly exhaustive editorial last summer, has met with little or no favor among dairymen, factorymen, or the trade, it will do no harm, and may possibly be of some good, to reproduce the following extract from the New Zealand Dairyman of December, 1907, on the value or otherwise of the system in that country. It is headed "The Value of Grading—Some English Merchants' Opinions."

"Some time ago Sir William Lyne attempted to force the principle of compulsory grading and stamping of grades under the provisions of the Commerce Act, but the hostility shown by the producers and manufacturers in Victoria and New South Wales was so very general that he retreated from the position taken up. At this time, the manager of the Gippsland Butter Factories Co-operative Produce Company, with a view to getting the opinion of London agents, wrote to four of the largest firms, namely, Lovell & Christmas, J. & J. Lonsdale, Andrew Clements & Sons, and Anglo-Continental Produce Co., asking for their opinion as to the value of grading. The questions and answers appeared afterwards in the 'Melbourne Age,' and were as follows:

"First.—Have you been able to get higher prices for butter branded 'First Grade Superfine' than you would have done had it not been so branded? Andrew Clements & Son: No; quality would have got the price without the grade mark. Lovell & Christmas: No; we sell all our butter on inspection, according to quality; buyers take very little notice of grade marks. Anglo-Continental Company: No. J. & J. Lonsdale: No.

"Second.—Have you, as a salesman, been assisted in any way in selling butter sent to you on consignment by reason of the grade marks being branded on the boxes? Andrew Clements & Son: On the spot or landed goods, no. Lovell & Christmas: No. Anglo-Continental Company: No. J. & J. Lonsdale: No."

RAPID MILKING.

Editor "The Farmer's Advocate":

Without criticising either Englishman or Canadian in their capacity for agricultural labor, you might kindly allow me space in your valuable paper to reply to "A Loyal Englishman," Hastings Co., Ont., regarding the capacity of a first-class milker. In his note of the 23rd inst., referring to Englishman employed by him milking 29 cows in two hours and a half, he might oblige by answering a simple question, viz., "What are the milking qualities of the 29 cows milked?" Now, I do not pretend to be a milking machine, but I consider anyone who milks eight cows on an average in an hour is a first-class milker, but it seems that the days of miracles are not all past. Nor do I wish to lower the merits of an Englishman, although I am Scotch myself, but would rather uphold him for the sake of the Mother Country. Wishing your paper every success.

A 1907 IMMIGRANT.

Montreal, P. Q.

Corn silage, clover, alfalfa and roots, helped out with a little straw, constitute, beyond all question, the ration for economical milk production and the sheet-anchor of profitable dairy husbandry. If this lesson can be effectually impressed, the present high prices of millfeed will, in the end, prove a great blessing.

APIARY.

BRANT DISTRICT BEEKEEPERS' CONVENTION.

The annual meeting of the Brant District Beekeepers is an event which is being looked forward to with an interest more than local. Among the drawing cards this year was an address by no less an authority than Mr. L. A. Aspinwall, last year president of the National Beekeepers' Association, a gentleman of international reputation, who has spent years of his time in microscopically studying the anatomy of the honeybee, and who has also made a very close study of the practical management of bees. Some eighteen years ago he announced that he was going to try and design a non-swarmering hive, and he now considers he has made a practical success of this. Mr. Aspinwall exhibited one of these hives at the convention, and explained his method of management, the leading feature of which was to use slatted separators, upon which the bees could cluster, and in this way give the bees, in their operations in connection with nursing young bees and performing other work in the combs, more room. Also, to have no queen-excluders between the brood-chamber and section super, and to have the space between the sections directly above the space between the combs.

WINTERING.

Mr. Aspinwall has had an unique experience in wintering, not having lost a colony for over fifteen years. He winters on the summer stands. First, he has a good colony, with a vigorous queen. He then contracts the brood chamber, so that the bees will cover the combs and stores. Then he feeds granulated-sugar syrup stores, made by boiling two parts of sugar, by measure, to one part water, adding a little tartaric acid when boiling, say a teaspoonful of tartaric acid dissolved in a little water added to 20 pounds of syrup. He feeds by means of inverted air feeders over the cluster, packing the hive by means of planer shavings and coarse sawdust, about three inches thick at the bottom and sides, and four or six inches of packing at the top. By so packing, he could feed bees, if needed, very late in the fall, or even in winter. He put the feed on warm, then smoked the bees a little, and tapped the hive so as to arouse the bees from their dormant condition. They then found the food. He had fed bees 24 pounds in 24 hours in this way.

Mr. Aspinwall always removed the propolized quilt the last thing in the fall, and put in its place muslin or cheese cloth, with the packing above. In this way the moisture was taken away from the bees, leaving them and their stores dry. It would be found that the top of the packing was moist, it there striking the cold air. He had little openings under the outer case cover, through which the air could circulate and carry off the moisture.

The entrance of his hive was about four inches wide. About half of this space had a strip in front of it, sloping up, and to an entrance hole in the outer case about one-half inch square. By having this arrangement, the inner entrance never clogged, neither did the outer-case entrance. The dead bees fell away as soon as carried clear of the hive, there being no projection to the bottom board. The two-inch strips enabled the bees to go up to the outside opening. The two openings not being opposite one another, the outer acted as a wind and sun break.

In the discussion which took place upon the subject of Natural or Artificial Stores for Winter? Which? When Supplied and Where Placed? quite

a diversity of opinion developed upon the manner of making the syrup. Some thought it should be made half sugar and half water; others that it should be as thick as the bees could be got to take up the syrup, they claiming that the bees, when the syrup was thin, had to expend heat and energy in evaporating it. All were agreed that artificial stores, made of the best granulated-sugar syrup, fed in time for the bees to ripen it, was a safe winter feed for the bees, but that honey was a better food when the bees should be stimulated for brood-rearing.

Contraction of the brood-chamber of the hive was advised, so the bees would cover the stores, but it was admitted that all might not be so situated that it was practicable or advisable to mix up combs taken out of the hives.

Mr. F. J. Miller, London, Ont., President of Ontario Beekeepers' Association, advocated, for safe outside wintering, three periods of preparation: First, to replace all queens two years of age, and to do this between July 20th and the last of August; then the necessary attention to winter stores during September; finally, packing and covers, from Oct. 15th to Nov. 1st.

He winters his bees in outer cases, with about two inches of packing at the bottom, and five inches at the side, and ten or twelve inches of packing on top. He uses sealed covers and a generous entrance, with an alighting board hung over the entrance to the outer case to exclude winds. He considered the outside packing a valuable feature in the spring, when brood in unpacked hives often perished.

Mr. H. G. Sibbald, Claude, Ont., stated that he considered the protection outside packed bees obtained between the time that they should be packed and the time the unpacked bees were put into winter quarters was even more valuable than the spring protection. Clover chaff was condemned as a winter packing by the Convention; planer shavings, made a little more solid by the addition of coarse sawdust and forest leaves, was favored.

POULTRY.

FEATURES OF THE POULTRY INSTITUTE, FEB. 10th TO 13th.

On February 10th to 13th there is to be held at the Ontario Agricultural College, Guelph, the annual Poultry Institute, attendance at which will be limited only by the capacity of the spacious gymnasium. The programme will be practical throughout, including papers and addresses by well-known Canadian poultrymen, as well as some outside talent. Among these will be the Curtiss Bros., of Ransomville, N. Y., who, Prof. Graham assures us, are among the most successful poultry farmers he knows, and as Ransomville is situated near Niagara Falls, their conditions, climatic and otherwise, are quite similar to those of Ontario. They raised, last year, about 40,000 ducks and 25,000 chickens, having 50 acres entirely devoted to the duck and chicken business, and what they have in the way of buildings, etc., has been made out of the business. They are going to tell how they produce eggs and raise so many chickens annually, and all about the duck business. Their addresses are to be purely practical.

It is also intended to have the noted poultry artist, F. L. Sewell, of Buchanan, Mich. It is the opinion of poultrymen that we have never had, in previous generations or in the present generation, anyone who can sketch a chicken like Mr. Sewell. He has travelled abroad a great deal, and is deeply interested in the practical side of the chicken business, particularly meat production. He has a very fine collection of lantern slides, with detailed notes on the same, of various poultry establishments that he visited in England, France and Normandy. These slides include displays of dressed birds and live birds in all stages of fattening, and are among the finest we have ever seen; and Mr. Sewell's description of the same and their methods of feeding, etc., is excellent. Mr. Sewell will also give a chalk talk, by which he will illustrate the various types and different breeds of chickens. Then there will be the results of the experimental work at Cornell, given by Prof. Rice; and the uses and abuses of a brooder, given by J. L. Nix, Homer City, Pa. All together, the Institute will be a rare treat, as well as of great practical value to commercial poultrymen. Write for further information to W. R. Graham, Poultry Manager, O. A. C., Guelph.

PLEASED WITH "CARMICHAEL."

I beg to acknowledge your favor in sending book, "Carmichael," which is altogether more than I expected, and, being a book about the farm life of this Province, it seems more realistic. With best wishes to your very highly-esteemed paper.

CLARENCE S. HALLMAN.

Oxford Co., Ont.

GARDEN & ORCHARD.

CAROLINA POPLARS - VARIETIES OF APPLES

Does the Carolina poplar sprout up from the roots, as the silver poplar does? I want to plant a lot of trees, but don't want to plant any that will sucker.

What are the best kind of apples to plant in this section of the country? What are the most hardy?

Milton West, Ont.

All the poplars are more or less subject to suckering from the roots, but none of them sucker so freely as the white or silver poplar. The Carolina poplar is a variety of the cottonwood, which makes very rapid growth, and is a handsome tree when young, but soon reaches the limit of its growth and becomes unsightly. It is a mistake in this country, where so many good trees thrive well, to plant largely of such a comparatively cheap and worthless variety as the poplar. A place overplanted with these always has more or less of a cheap and mushroomlike appearance. For a selection of more suitable trees, I would refer you to the College Bulletin, 155, on "Farm Forestry," in which much valuable information is given regarding selection and planting of trees. Apply to E. J. Zavitz, O. A. C., Guelph, Ont.

With regard to selection of varieties of apples to plant in your neighborhood, I cannot do better than refer you to the list recommended by Mr. A. W. Peart, Manager of the Fruit Experiment Station in your immediate neighborhood, at Burlington. The varieties recommended for that district for commercial planting are Astrachan, Duchess, Wealthy, Ribston, Blenheim, King, Greening, Baldwin and Spy. There are given in their order of ripening, from earliest to latest. The following additional varieties are recommended for home use: Sweet Bough, Gravenstein, Wagener, Seek, and Golden Russet. Send to the Department of Agriculture, Toronto, for a copy of bulletin, "Fruits Recommended for Planting in Ontario," in which you will find a list of the different kinds of fruit recommended for the various parts of the Province.

H. L. HUTT.

O. A. C.

INDEPENDENT CANNERS ORGANIZE.

At a meeting in Toronto, early last week, attended by representatives of nearly all the independent canning factories of Ontario, of which there are about forty, a new organization was formed, called the Independent Canners' Association, the objects of which were stated, by resolution, to be "To hold meetings from time to time to discuss all matters relative to the interests of canners, and for their mutual benefit, advantage and protection."

In the discussions which took place during the session, it was complained that the Provincial Inspection Report had placed an unfair imputation by stating that several factories in the Niagara District were not up to the standard in cleanliness. The meeting was in favor of the most rigid inspection and heavy penalties for those who violated the law, but considered that the names of the delinquent firms should have been given, instead of reflecting upon the district in a general way. The action of the Canadian Canners, Ltd., the amalgamated firm which controls a large share of the business in the Province, was considered, but no action taken, although it was stated by some of those present that efforts were being made to prevent grocers buying canned goods from any but members of the Canadian Canners' Association.

The following were elected the officers of the new association: Mr. E. D. Smith, M. P., Winona, President; Mr. A. Baker, the Old Homestead, Picton, Vice-President; Mr. R. W. Ball, of the Essex Canning Company's offices, Toronto, Secretary-Treasurer; and Messrs. F. J. Lowe, of J. H. Withey & Co., St. Catharines; W. Eckert, of Gorman, Eckert & Co., London; S. E. Mastin, the Farmers' Canning Company, Bloomfield; Geo. E. Fisher, the Burlington Canning Company, Burlington, who, with the officers, form the Executive.

The Legislation Committee consists of Messrs. M. F. Smith, the Oshawa Canning Company; W. A. Carson, the Napanee Canning Company; and H. T. Reason, the St. Thomas Canning Company.

I hereby acknowledge receipt of the premium knife for one new subscription sent in. It's like the magazine itself, first-class in every respect.

Oxford Co., Ont.

H. H. BURRILL.

THE FARM BULLETIN.

THE GEORGIAN BAY CANAL.

An interim report of the Georgian Bay Canal survey, dealing with the canalization of the French River from Georgian Bay to North Bay, a distance of eighty-one miles, and presenting some general observations on the whole project, has been presented to the Dominion Parliament. A. St. Laurent, Chief Engineer of the Survey, discusses some of the benefits as follows: Approximate cost of the French River section, \$18,700,589, for a 22-foot ship canal, with lift-locks varying from 22 to 24 feet. The whole length of the Canal, from Georgian Bay to Montreal, is 440 miles, consisting chiefly of a chain of deep lakes or wide river expansions, so that the construction of the whole canal would require the canalization of only 27.5 miles, and the improvement of only 55.5 miles, leaving 375 miles of free navigation. The ascent from Georgian Bay to the summit would be 99 feet, while the descent from the summit level to Montreal would be 659 feet, making a total lockage of 758 feet. This, it is estimated, could be overcome by 27 locks, varying in lift from 10 to 50 feet.

The proposed route would mean a great saving in

distance, and a considerable reduction in time from the interior to the British market. From Fort William to Liverpool via New York is 4,929 miles, while via the Georgian Bay Canal it would be only 4,123 miles, a difference of 806 miles in favor. What is more important is the computation that it would be two days shorter in time for each trip from the head of the lakes to an ocean port than any other route, and, owing to its depth, would have an enormous advantage in carrying capacity. This would naturally have a tendency to reduce transportation rates on grain and other products, and in case of congestion at the terminal elevators at Fort William or Port Arthur before the close of navigation, the great depth of the waterway would enable the largest lake boats to reach an ocean port fully loaded without breaking bulk.

Its geographical position is excellent, being entirely Canadian, and fed at its summit by waters well within Canadian territory. Its northern latitude would be not without advantages for the transportation of perishable foodstuffs during the summer season.

Reference is made to the immense water-power facilities that would be created by construction of the canal. There is, indeed, every reason to expect that the Ottawa River would become the Niagara of Eastern Ontario and Western Quebec.

To the possible objection that navigation would

have to close early in the fall on account of the freezing up of the river and Lake Nipissing, Mr. St. Laurent replies that the average closing of the lake is but two days earlier than the closing of navigation at Montreal, and that the use of ice-breaking tugs would keep navigation open longer, if necessary.

The report of the survey may be expected to receive a great deal of attention from Parliament and the press, and if the engineer's report commends itself to our Legislators, we may look for a move which will strike to the heart of the transportation problem, and take advantage of this great natural opportunity instead of frittering away money improving a circuitous waterway system. The best solution of the transportation problem is the only one this country will approve, but for a really good and economical means of water transportation, retained in public control as a regulator of freight rates, we believe the Dominion taxpayers will be found willing and anxious to put up the price. The matter must be looked at in no narrow or partisan spirit. It is not a question of the effect on a few cities or constituencies, but the effect on the general welfare and commerce of the country as a whole. That is the only view to take of any such question, and we feel satisfied the Canadian people are broad-minded and far-seeing enough to regard the subject in this light.

New Brunswick Farmers' and Dairymen's Convention.

The thirty-second annual meeting of the New Brunswick Farmers' and Dairymen's Association opened in Fredericton on January 22nd, under the presidency of Mr. H. H. Smith, of Blissville, who, in his opening address, thought he might safely say the past year and the prospects for the future were encouraging for the farmer. The very severe winter of 1906-7 was followed by a cold and backward spring, and a very wet harvest, and while crops grew very well after they were planted, the excessive wet weather in the latter part of the season was somewhat destructive to the potato crop, and interfered greatly with the saving of hay and grain. The prices of farm produce generally had been very satisfactory; nearly everything had been selling at top prices, and that would generally make up for any deficiency in quantity. Comparing the agricultural conditions of the Province fifteen years ago with those of to-day, one could not help but be impressed with the great advances made. The conditions for making farming a success were equal to those of any other part of the Dominion. They had a good climate, good soil and good local markets, and a Government that seemed alive to the fact that the greatness of a country depended on the development of her agricultural resources to their fullest extent.

N. B. CROPS, DAIRY PRODUCE AND PRICES.

The Hon. L. P. Farris, in presenting his annual report, offered congratulations on the fairly good returns of both crops and dairy produce during the year 1907, in spite of the unfavorable conditions which prevailed.

CROP STATISTICS.

The Province produced last year of the six crops of which his department collected statistics:

	Average per Acre.
410,714 bush. wheat.....	19.9
5,748,134 bush. oats.....	29.5
96,558 bush. barley.....	23.5
1,451,911 bush. buckwheat.....	24.9
5,182,503 bush. potatoes.....	115.
2,836,394 bush. turnips.....	493.6

This is an increase over 1906 of all crops, except barley and potatoes.

There was a largely increased acreage of potatoes planted in 1907, but, on account of blight, which caused the tubers to rot, and the frost before spoken of, the yield per acre was only 115 bushels, against 135.1 for 1906.

Prices for all first-class products have ruled high during the season.

DAIRY OUTPUT.

Canadian dairy statistics for 1907 are rather disappointing. In New Brunswick the dry season of 1906 left farmers laboring under a shortage of feed for their cows during the winter of 1906-7. This shortage of feed and consequent poor condition of some of the herds made a discouraging outlook for the make of cheese and butter for the season of 1907. They had experienced in New Brunswick only a small percentage of the decrease anticipated by reason of these conditions. The statistics from the port of Montreal, including those from all Atlantic ports, shows that whereas \$29,000,000 went into the hands of Canadian farmers for factory dairy products in 1906, only \$23,000,000 was received in 1907. These figures showed a decrease of over 20 per cent. New Brunswick statistics showed that the reduction of money going into the hands of farmers for factory products in 1907, as compared with 1906, is only a decrease of one-tenth

of one per cent. Their favorable showing was made despite the fact that factories had a smaller patronage in 1907 than in 1906. The total cheese made in New Brunswick factories in 1907 was 1,255,541 lbs. The total butter was 937,576 lbs. The price secured for cheese was 11.85 cents, as compared with 11.7 in 1906. The price secured for butter was 23.97 cents in 1907, as compared with 22.50 cents in 1906. The total value of cheese and butter produced in factories in 1907 was \$373,585.49.

He would like to take that opportunity of urging upon farmers the desirability of taking more interest in mixed farming, as that was by far the best means of keeping up the fertility of the farm. It was not wise to specialize too much, as in case of the failure of the particular crop, the loss was often considerable. That had been particularly felt in the past year by those who had gone in largely for potatoes. He was very pleased to hear the remarks of the Mayor of Fredericton on the subject of education. The Government had made most generous arrangements for providing the young men with a thorough agricultural training, either at the College at Truro, or at St. Anne de Bellevue. For those who could not attend college, they had the Farmers' Institutes, with the services of some

bear the very closest investigation were selected. The Army had placed over 1,500 men and women in the Maritime Provinces last year, and the percentage of failures was very small. Farmers who had taken the Army's immigrants were, as a rule, satisfied with them, the number of complaints being very few indeed. The Army provided printed forms of application for the use of intending employers, which could be obtained from any of its officers. The rates of wages were entirely at the discretion of employers; all they had to do was to state the class of man they wanted, and the rate of wages they were prepared to pay, and the Army would undertake to find them men suited to their requirements.

BREEDING AND MANAGEMENT OF HORSES.

Dr. Standish, of Walkerton, Ont., addressing the meeting on the subject of "Breeding, Management and Care of Horses," quite endorsed all that had been said by previous speakers on the great advances which were being made by the Province generally; but he had noticed particularly the great advances there had been in the production of good horses. The horse industry was the most important in the whole Dominion, and not less so in the Province of New Brunswick. No other Province with which he was acquainted had so many advantages for the production of good horses, and there were several reasons for this. One was the splendid foundation which they had to work upon. The Government had recently brought in some very fine horses, which would not have been left very long in the Province but for the conditions upon which they were sold. There were many very good animals in the Province before the recent importation, but now as good a type could be found here as anywhere. He did not think it desirable to direct attention to the production of very heavy horses at present, but they had the stock which would enable them to raise as good and useful a class of horses as it was possible to get.

ERRONEOUS NOTIONS.

There were a great many notions abroad of which it would be as well to disabuse their minds. One often heard people speaking about "thoroughbred" Percherons, or Clydes, or Shires, and so on. There was no such thing as a "thoroughbred" Percheron or Clyde or Shire. The expression "Thoroughbred" referred to one particular breed of horses, and the word was frequently used where "pure-bred" was meant, signifying that the animal referred to was a pure specimen of the particular breed to which he belonged. Many people contended that the use of a Thoroughbred sire would improve any type of horse, but such a statement was quite erroneous. On the contrary, many good types of horses would be spoiled. Again, to some people an imported pure-bred stallion was the only thing thought necessary. That was by no means the case, for if a desirable animal of the particular type wished for to breed from could be found in the district, it would probably be found to be best to breed from him, as he would be acclimatized.

THE MEDIUM DRAFT HORSE.

The need of breeding the medium draft horse was what he advocated, and the subject was important by reason of the condition of things existing in the Province, and also for the reason that it was very profitable. No one department of agriculture could be either profitable or pleasant without the horse, and they particularly needed good draft horses. That type of horse possessed one advantage which was possessed by no other, and that is that they come into use earlier than any other, it being possible to use them at two years old, and that to their benefit, if not put to very heavy work; and while they were working and earning their keep, they were being educated at the same time. He was not to be understood as condemning the light-harness or saddle horse. Far from it! Men possessing the skill necessary and applying that skill to successful production of light horses would find it a most remunerative business. In breeding



James Good, Jacksonville, N. B.
President N. B. Farmers' and Dairymen's Association.

of the best speakers to be got, and if there was any other assistance which they thought they ought to have, he was there to learn what it was, and, if possible, their wishes should be met.

SALVATION-ARMY IMMIGRATION.

Staff Captain Jennings, of the Salvation Army, gave a most interesting account of the immigration work in which the Army is engaged. Their system was formerly somewhat haphazard, and, therefore, ineffectual, but now it was one of the most highly-organized departments of the Army's whole work. It was often said that they only looked after the lowest classes in the Old Country, but that was a very great mistake. They did not bring out the criminals, the out-of-works, the drunkards and the dissipated, but only the best class of immigrants to be had. Last year they received applications from over 250,000 persons, but of this number they brought out only some 17,000, which showed that the applications were pretty closely sifted, and only those whose characters would

horses, the first thing necessary was to decide upon the class, and the desired characteristics of that class as to form and action. After deciding upon the breed that possessed the desired characteristics, select suitable sire and dam of that breed, and don't change.

SELECTING THE SIRE.

In selecting the sire, care should be taken that he comes through a long line of desirable families, is well conditioned (which cannot be done without good food, water and a considerable amount of regular exercise), and that he be free from hereditary disease or unsoundness. As to the dam, whilst it is desirable that she be pure-bred, that was not such an absolute necessity as in the case of the sire; but she must be well conditioned and kept so.

FEEDING THE GROWING COLT.

Management consisted in nourishing and educating; feeding, exercise and water being a large part of that. The food should be such as contained elements to furnish material for the upbuilding of the bones, muscles, nerves and other tissues of the body. The best food raised on the farm for growing colts was mixed hay, containing a high percentage of clover, oats, wheat bran, linseed (to be fed in small quantities), roots (well cured), oat straw; and in summer, grass, and water when desired at all seasons. An allowance of two quarts of oats a day, with the same quantity of bran mixed with it and fed dry, together with some carrots or turnips, or other succulent food, twice a week, should bring a growing colt along in good style. Bran contains a higher percentage of bone-forming material than any other food for horses. Barley was not a suitable food, being of a fattening nature. To overfeed a horse was almost worse than to underfeed him, as it was not the quantity eaten, but the quantity assimilated that benefited the animal. Another essential was abundance of fresh air and exercise. Unlike cattle and hogs, horses would not thrive in confinement, though even hogs which were heavily fed and kept confined, did not make the best bacon by any means. The average cost of producing a colt to the age of two years, when he would be fit for light work, would be about \$85; and, that being the case, was there any department of farming which would give better results, as when full-grown and fit for market he should be worth at least two hundred dollars.

BEEF PRODUCTION—THE DUAL-PURPOSE COW.

Bliss M. Fawcett, of Sackville, N. B., next read a paper on "Beef Production," in which, after reviewing the conditions of the industry, he said that during the season now past the various exhibitions held in the Maritime Provinces had brought out some fine specimens of the beef animal, many of which had been pronounced by different judges as almost perfect models in build, quality and finish. The year just closed had given farmers the best prices for beef they had ever had. Large numbers of cattle would not, however, have been slaughtered but for the scarcity and high price of hay. Notwithstanding all that had been done by the Dominion and Provincial Governments to foster beef production, many thousands of dollars had been paid from the Maritime Provinces for Western beef; yet it was not so many years ago that these same Provinces were exporting thousands of cattle annually to Great Britain. The population of the Provinces was not very much greater at the present time than it was then. What, therefore, was the reason for such large importations? The speaker asked was it possible that those Provinces could raise such fine beef a few years ago, feed their own people and export some thousands of carcasses annually, and yet not be able to do it now? The only solution was the general or dual-purpose cow. Only recently they had all seen in "The Farmer's Advocate" a three-column editorial to the effect that the salvation of the beef interests was in the good old cow of twenty-five years ago that gave a good heavy yield of milk and sent steers across the Atlantic that brought in \$100 each.

COW MUST DO MORE THAN RAISE THE CALF.

Every one of those present knew very well that letting a calf suckle its mother, and, therefore, being the only return for the year on the cow, without any profit from the milk, did not pay at all. Beef would have to be raised more cheaply than that. The other day he saw, unloading at St. John, twenty carloads, or about 400 head of grade Shorthorn steers, averaging about 1,000 to 1,200 lbs. They were fat, fine specimens, raised in Ontario, and were being shipped to England. Those certainly had not been suckled by their mothers, but fed skim milk from the pail and rough, cheap other stuff all their lives; kept growing, and at last fed liberally and sold. That kind of business had been going on in Ontario for some years. The farmers of that Province had not thrown away the general-purpose cow.

PROF. GRIDDALE TAKEN TO TASK.

He believed that such speeches as were given by Mr. Griddale, of the Experimental Farm, Ottawa, on the beef business had done more to discourage that industry than anything he had ever read or heard of. Mr. Griddale told them at Amherst three years ago that it only cost sixteen and a half cents a pound (live weight) to raise a steer to three years old, which was a terrible misrepresentation. There was only one way open to them, either to keep a tip-top milking cow that would raise a good beef steer, or else allow the Al-

berta ranchers to send them their beef. There were hundreds of acres of land in New Brunswick that would turn off cattle in summer and fall better than those fed on the best pastures of the Tantramar Marsh. The yearlings, two-year-olds and dry cows could roam over the woodlands, costing nothing six months of the year. In the fall, when two and a half or three and a half years old, coming into the barn fat as they would, Nov. 1st was the time to give them the extra feed. Feed liberally with turnips and hay for five months, and you would have cattle which would bring five cents a pound (live weight) during April, May, June and July. During the whole of that time not a single cent need go to buy extra feed, as everything could be easily grown on the farm and turned into cash. The cow all that time had given good returns in butter-fat, while her feed could also be easily grown on the farm, turnips and hay being the chief ration. The trouble was that farmers were using the dairy breeds for the general-purpose cow; not that he was driving at the dairy business, but he did claim that the wrong was done when the breeders kept the dairy steer which is allowed to take the place of one which would be much more profitable to the owner. Farmers who keep the dairy breeds should kill the male calves at their birth. With the general-purpose cow, times were always good. When butter was high in winter, beef was usually low, and when beef was high in summer, butter was usually cheap. What he had told them was no hearsay, he had been in the business all his life, and he knew that in several of the counties of New Brunswick the method he had outlined had been working for years, the farmers being thrifty, with nice homes and a corner for a rainy day.

SHORT ROTATION.

Arising out of this paper, some discussion took place in which Dr. Standish took part, and he was asked what steps he would take if placed upon a 200-acre farm which for the past twenty-five years or so had grown nothing but hay and oats alternately, and every particle of these crops sold off and nothing put on the land to keep it up, so that it was in an absolutely worn-out condition. What would he do to restore the farm to a proper condition of fertility? There were many such farms in New Brunswick.

Dr. Standish, in reply, said he would first of all decide what line of farming he intended to take up, whether dairying, beef-raising, sheep-breeding, or what not, and then buy the best animals he could afford, of the variety best suited for his purpose. Then he would practice a short rotation, with a fairly large area sown to forage and soiling crops. The whole of the feed produced should be consumed on the place, and sufficient concentrated food purchased to supply fertilizing matter. As much stock as the farm would carry should be raised and kept up. It was always desirable for a farmer to produce his own feeding stock. That plan paid much better than buying animals at two and a half years old and finishing them off. There was more profit to be made out of a growing animal than out of one that is only brought on the farm to be finished off. Although they were discussing beef production, and there could be no doubt that it was a profitable branch of the farming industry, yet he considered dairying was the more profitable of the two.

OTHER FEATURES.

In the interests of brevity, we withhold from this report, for separate treatment in subsequent issues, the excellent paper on "Farm Problems," read by J. R. Oastler, of Sir William Van Horne's farm, at St. Andrew's, N. B.; also the address of Principal Cumming, of the Nova Scotia Agricultural College, on "Feeding Farm Animals."

OFFICERS.

The officers elected for the ensuing year were: Mr. James Good, of Jacksonville, President; Mr. Albert Anderson, of Sackville, Vice-President; Bliss M. Fawcett, Sackville, Recording Secretary; Thos. A. Peters, Fredericton, Corresponding Secretary, and Harvey Mitchell, Sussex, Treasurer.

NIAGARA PENINSULA FRUIT-GROWERS' ASSOCIATION.

On Monday, Jan. 27, the joint executive committees of the Southern Ontario Fruit-growers' and the Niagara Peninsula Fruit-growers' held their final meeting to complete arrangements for union of the two associations, and to set a date for the first meeting under the auspices of the reunited body. It will be remembered that a little over a year ago the Western end of the Peninsula left the original association, and formed the Southern Fruit-growers' Association. It was found that this was a mistake, as divided interests ought not to occur amongst the growers. The old name is retained. The annual meetings are to be held alternately in St. Catharines and Grimsby or Winona. The Executive is composed of a Director for every ten members who pass on all matters of legislation and changes in constitution, which has only to be ratified at the annual meeting. The first meeting is to be held on Feb. 11th, at St. Catharines. The utmost harmony prevailed, and a large membership for the year is assured. A programme for a series of meetings, to be held during the latter end of February and beginning of March throughout the district, was mapped out, at which a number of practical and scientific men are to be present to give addresses.

THE HIRED MAN'S FEELINGS HURT.

Editor "The Farmer's Advocate":

I am a po', ole colored man, an' live on a farm, an' do what choes I can. De bos done gone on a visit an' lef' me all de choes to do twal he come back. There is 18 pigs to feed, an' I do it jes as well as I can. I give dem jes what he sed I mus, and when I mus. After de noon feedin' was done to-day, I got de bos' "Farmer's Advocate" an' see a piece about feedin' swine (de Misses sed dat ment pigs). One lil piece made me feel bad. It sed the feedin' of swine is not a choe to be intrusted to the hiad man. Well, I sed de bos ain no fool, and he lef' me to feed his. The Misses saw I was sore, and sed, "Never mind, Pete, you mustn't be so techy, just get that story about Carmichael an' read that." All de same it kep stickin in my crop, and I jes had to say something. Doan you think, Mr. Editor, dat de hiad man has a few feelins dat can be hurt, or has his feelins become so num dat da cant be hurt when such things are sed about him. When I was a young man I had to leave ma home an' live out, an' went to live with a Mr. H—, of M—, who knew ma family, one time dere was a preacher came to M— an' heid meetins; first da was fo women only, den fo men only, an' den fo bof women an' men togeder. Mrs. H— took her two lil girls an' me with her to de las meetin. De preacher sed, in his sermon, dot people should be careful how da let chilun be with the hiad help. My, how dat did sting, an' now ma face did burn. Mrs. H— saw I was hurt, and sed, "He doan mean people like you." But I could not help feelin bad. Dat was in 1860, an' when I saw dat piece in yo paper to-day, it brought it all back to me—an' the preacher was speakin about chilun an not pigs. Why do da keep sayin things that make de hiad man feel bad? Many a hiad man is a farmer's son, an' was raised as well as the family he is living with. Perhaps, better jes think back a little, Mr. Editor, an' perhaps you will remember a flock of pigs dat had reason to like de care da got from de hiad man better than what da got from de man who got 5½ a cwt. for dem. Wouldn't it be in de interest ob de famer, an' de papers, too, if dese slurs on de hiad man was cut out for a while? PETE ORKA.

York Co., Ont.

DISTINCTION FOR DR. RUTHERFORD.

It is reported from Ottawa that Dr. J. G. Rutherford, Dominion Veterinary Director-General and Livestock Commissioner, has received official intimation from the Royal College of Veterinary Surgeons, of England, that he has been made an honorary associate of that body on account of valuable services rendered by him to veterinary science. This is a great honor, there being only two others on the American continent, and only ten English-speaking men in the world who have it. The roster of these notables contains such names as Prof. Cadot, Alfort; Dr. Bang, Copenhagen; Dr. Bollinger, Munich; A. Chaveau, M. D., Lyons; Alphonse Jos. Degive, Brussels; Dr. Eugen Frohner, Berlin; Prof. T. H. Kitt, Munich; Prof. Dr. H. Mohler, Berlin; Prof. L. G. Neumann, Toulouse; Prof. Ed. Perroncito, M. D., Milan; Prof. Fredrich A. Zurn, M. D., Leipzig.

FORTHCOMING EVENTS.

- Feb. 12th.—Canadian Holstein-Friesian Association, annual meeting, Toronto.
- Feb. 12th.—Canadian Ayrshire Breeders' Association, annual meeting, Toronto.
- Feb. 12th to 14th.—Ontario Horse-breeders' Show, at Toronto.
- Feb. 13th, 8 p. m.—Ontario Horse-breeders' annual meeting, Walker House, Toronto.
- Feb. 20th.—Prince Edward Island Dairymen's Convention, Charlottetown.
- May 4th to 9th. Canadian National Horse Show, Toronto.
- June 29th to July 9th.—Dominion Exhibition, Calgary, Alta.
- July 11th to 17th.—Winnipeg Industrial Exhibition.

A JAPANESE COLONY IN ALBERTA

Mr. B. R. Nagatany, of Kioto, Japan, has purchased for the Canadian Farming Co., of Tokio, which he organized, a section of land consisting of 10,240 acres, in the Inverlake District, Alberta. The company is capitalized at \$250,000 of Japanese gold, and its object is to carry on mixed farming and especially sugar-beet raising in Alberta. Mr. Nagatany came to Canada in 1902, and attended Queen's University and, later, the O. A. C., at Guelph, where he conceived his big farming scheme. Mr. Nagatany expects to bring out 500 families of Japanese to work the area. The land was purchased from the C. P. R., and about half of it will come under irrigation during the present year.

THE BANK OF TORONTO

HEAD OFFICE: TORONTO, CAN.

Incorporated 1855.

Paid-up Capital	\$ 4,000,000
Reserve Fund and Undivided Profits	4,650,000
Total Assets	38,000,000

In Our

SAVINGS Department

You will receive at any of our offices for all sums deposited with us:

INTEREST four times a year.

EVERY CONVENIENCE of modern banking.

PERFECT ASSURANCE that your money is safe.

COURTEOUS TREATMENT at all times.

MARKETS.

TORONTO. LIVE STOCK.

The total receipts of live stock at the City and Junction markets last week were 208 carloads, composed of 3,420 cattle, 1,655 hogs, 2,395 sheep, 127 calves and 75 horses. The quality of the fat cattle being marketed is far from being good, generally speaking. A few lots of good, but very few choice, and a large number of half-finished cattle are being brought forward weekly. The good are eagerly sought after, but the half-fat kind were slow sale at lower quotations generally.

Receipts at the Junction market, on February 3rd, were 43 carloads, 780 cattle; quality medium; trade brisk, owing to light run. Exporters, \$5 to \$5.35 per cwt.; export bulls, \$4 to \$4.50; picked butchers', \$5 to \$5.25; good loads, \$4.50 to \$5; medium, \$4 to \$4.40; common, \$3.75 to \$4; cows, \$3 to \$4; calves, \$4 to \$6.50. Sheep, \$4 to \$4.50; lambs, \$5.50 to \$6.50 per cwt. Hogs, \$5.15, fed and watered, for selects, and \$4.90, f. o. b. cars at country points to drovers.

Exporters.—The market was fairly strong last week for shipping cattle at \$4.75 to \$5.25, the bulk selling at \$5 to \$5.20; export bulls sold from \$3.60 to \$4.50 per cwt.

Butchers'.—Choice picked lots of butchers' sold at \$4.75 to \$5; good, \$4.40 to \$4.75; medium, \$4 to \$4.30; common, \$3.75 to \$3.90; cows, \$2.50 to \$3.75 per cwt.; canners, \$1 to \$2; bulls, \$2.50 to \$4 per cwt. for butcher purposes.

Feeders and Stockers.—Few of either class are being offered. Mr. Harry Murphy, who is the leading dealer in this class, got a few steers, 800 to 1,000 lbs. each, at \$3.30 to \$3.80 per cwt.

Milkers and Springers.—Buyers from Montreal and Quebec, caused a fairly strong market at about the same quotations as in our last report. Good to choice cows sold at \$45 to \$55 each, with an odd choice milkster at \$60; medium cows, \$30 to \$35; light, lean cows were hard to cash at \$20 to \$25 each.

Veal Calves.—Receipts light; market strong, at \$3.50 to \$4.50 for large, coarse calves; but good to choice vealers sold from \$5 to \$7 per cwt., but there were few of the latter being offered.

Sheep and Lambs.—The quality of the sheep and lambs that are being marketed is not as good as it should be. Too many leas, half-fat, both lambs and sheep, that are far from being a credit to the farmers, are being rushed on the market. Common lambs sold from \$4.50 to \$5.50 per cwt.; good to choice lambs at \$6 to \$6.50 per cwt.; export ewes, \$4 to \$4.50 per cwt.; rams and culls, \$3.50 to \$4 per cwt.

Hogs.—Market easy, although receipts have been light. Selects sold at \$5.50, fed and watered at the market; lights and fats, \$5.25; prices to drovers at

country points were reported at \$5.15 to \$5.25 per cwt., f. o. b. cars.

Horses.—At the Junction Horse Exchange on Monday of last week there were 74 horses of all classes on sale, out of which 50 were sold, the balance being withdrawn. Nearly all of those withdrawn were the best in each of the different classes, amongst which were a few fine, heavy drafters, which are the hardest sellers. Dealers stated that they could not buy them from the farmers to sell at prices offered, although some of them were withdrawn at bids around \$190 to \$200 each. Good, smooth, young horses, 1,200 to 1,400 lbs. each, are the best sellers just at present. Drivers are slow sale, unless of good quality and action, and well broken. Medium drivers are hard to sell, as it does not seem that anybody wants them. Prices ranged as follows: Drafters sold, \$117 to \$180; general-purpose horses, \$115 to \$180; drivers, \$60 to \$160; one fine stepper was withdrawn at \$200; serviceably sound horses sold at \$33 to \$105, the bulk going at \$45 to \$60 each.

BREADSTUFFS.

Wheat.—No. 2 white, 98c. to 99c.; No. 2 red, 97c.; No. 2, mixed, 97c. to 97½c.; spring wheat, No. 2, 94c.; Goose, No. 2, 97c.; Manitoba, Northern, No. 1, \$1.20 to \$1.21; No. 2, \$1.15, at Port Huron. Rye.—No. 2, 80c. Peas.—No. 2, 83c. Buckwheat.—68c. Corn.—No. 3 American yellow, 65c., at Toronto.

Barley.—No. 2, 77c. to 78c., outside; No. 3X, 75c. to 76c., outside. Oats.—No. 2 white, sellers, 50½c.; buyers, 49c., outside; No. 2, mixed, 47½c. to 48c., outside.

Flour.—Ontario, 90 per cent. patents, \$3.75 bid for export; Manitoba patent, special brands, \$6; second patents, \$5.40; strong bakers', \$5.30. Bran.—\$24, in bulk, at Toronto. Shorts.—\$24, in bulk, at outside points.

COUNTRY PRODUCE.

Butter.—Market firm; but prices unchanged. Creamery, pounds, 29c. to 30c.; creamery, boxes, 29c. to 30c.; dairy, pound rolls, 25c. to 26c.; tubs, 28c. to 24c.

Eggs.—New-laid, 30c.; cold-storage, 21c. to 22c.

Poultry.—Receipts liberal; prices easier, as follows: Turkeys, dressed, 13c. to 14c.; geese, 9c. to 10c.; ducks, 11c. to 12c.; chickens, 12c. to 14c.; old fowl, 8c. to 9c.

Cheese.—Steady at 13½c. for large, and 13½c. for twins.

Honey.—Market steady. Extracted, 13c.; combs, in dozen sections, \$2.75 to \$3.00.

Potatoes.—Market firmer. Car lots, on track at Toronto, 80c. to 90c. per bag.

Beans.—\$1.70 to \$1.75 for primes, and \$1.80 to \$1.85 for hand-picked.

Hay.—Baled, in car lots, on track at Toronto, \$16 to \$16.50.

Straw.—Baled, in car lots, on track at Toronto, \$9 to \$10.

TORONTO FRUIT MARKET.

Apples.—Deliveries on the Toronto farmers' market lately have been so liberal that apples are almost a drag on the market. The quality, however, generally is not good, being seconds or the leavings of the packers. Farmers' loads sold from \$1.50 to \$2.50, with an odd lot of good quality at \$3 per bbl. Fruit dealers who have taken cold-storage for their No. 1 apples will not sell for less than \$4 per bbl., and are not anxious to take them out of storage at that money.

SEEDS.

The William Rennie Seed Co. report the market steady, as follows: Alsike, fancy, \$8.25 to \$8.60 per bushel; No. 1, \$8 to \$8.25; No. 2, \$6.75 to \$7.25; red clover seed, No. 1, \$10 to \$10.25 per bushel.

HIDES AND WOOL.

E. T. Carter & Co., 85 East Front Street, wholesale dealers in wool and hides, report prices as follows: Inspected hides, No. 1, cows and steers, 5c.; inspected, No. 2, cows and steers, 4c.; country hides, cured, 4c. to 4½c.; calf skins, 7c. to 8c.; kips, 6c.; horse hides, No. 1, each, \$2.10; horse hides, No. 2, each, \$1.10; horse hair, per lb., 25c.; tallow, per lb., 5c. to 6c.; wool, unwashed, 10c.; wool, washed, 19c. to 20c.; rejects, 14c. to 15c.; lamb skins, 70c. to 80c.

MONTREAL.

Live Stock.—The offerings of cattle on the local market show a very considerable increase, as compared with a week ago. However, there seems to be a good demand from all quarters. One of the strengthening features was the presence of a number of Quebec buyers who made purchases of several carloads for their own market, thus taking from here what might otherwise have been surplus stock. Choice cattle are scarce and firm, common being plentiful. Choice sold here at 5½c. to 5½c. per lb.; fine, 5c.; good, 4½c. to 5c.; medium, 3½c. to 4½c.; common being 3c. to 3½c., and inferior down to 2½c. per lb. Sheep and lambs were scarce and firm at recent prices. Lambs were in good demand at 6½c. to 6½c. per lb. for choice, 5½c. to 6c. for good, and 5½c. to 5½c. for common, sheep being 4c. to 4½c. for choice, 3½c. to 3½c. for good, and 3c. to 3½c. for culls. The market for hogs continues to show the easy tone which has characterized it for some time past. Demand from all sources continues quiet, and prices are lower, at 6c. and 5½c. per lb., the lower figure being the closing figure.

Horses.—The horse market shows very little change, as compared with a week ago. Dealers still find an almost utter absence of demand, not only from the city, but also from the lumbering and railway contractors throughout the Province. A few horses are always being sold. Heavy-draft horses, weighing 1,500 lbs. to 1,700 lbs. each, sold at \$250 to \$300; light-draft, 1,400 to 1,500 lbs., \$225 to \$275; good blocks, 1,300 to 1,400 lbs., \$200 to \$225; express horses, \$150 to \$225; common plugs, \$50 to \$75, and choice saddle and carriage animals, \$300 to \$500 each.

Dressed Hogs and Provisions.—Although the market for live hogs shows much weakness, and from time to time is quoted at a further decline, dressed hogs seem to hold their own fairly well. Though the feeling is unquestionably easier in sympathy with the market for live hogs, prices, however, are still 8½c. to 8½c. for abattoir fresh-killed, country-dressed being 7½c. to 8c. The remainder of the provision market is holding extremely steady. Bacon is selling freely, and hams are in good demand. Barrelled pork is going out fairly well, and lard is meeting a steady request. Prices on all these products continue absolutely unchanged. The prices of bacon are 10½c. to 11c. per lb. for long clear, 11c. to 12c. for flanks, select bacon being 14c. to 15c. Hams are 12½c. per lb. for those weighing 25 lbs. and more, 13c. for those weighing 18 to 25 lbs., 13½c. for lighter. Lard is 8½c. to 9½c. per lb. for compound, and 11c. to 12½c. for pure. Barrelled pork is \$20 to \$21 per bbl.

Potatoes.—The market for potatoes was steady during the past week. Demand continues quite dull, good potatoes being, however, most sought after. It is the knowledge that there are many poor potatoes in the market which is such an influence against purchases of large lots. Dealers claim to be purchasing at 80c. to 85c. per 90 lbs., carloads, on track, for choice stock, and to be reselling in same position at 90c., in broken lots, for choicest, and at 90c. to \$1, bagged and delivered into store, according to quality. Inferior stock may be had as low as 60c. per 90 lbs.

Eggs.—The market for eggs shows a slight improvement. A few fresh ones may be picked up at about 38c. to 40c. per doz., in single cases. Lined eggs are costing around 22c.; glycerined, 24c., and cold-storage, selected, 26c. per doz.

Poultry.—The market is almost bare of stock, and prices are firmer. Turkeys are selling at 14c. to 16c. per lb.; chickens, 11c. to 12c. for fine, and 13c. for fancy; fowl, 8c. to 10c. for finest, and lower for common, and geese, 10c. to 11c. per lb.

Butter.—Current makes are selling at around 27½c. per lb., grass butter being 28½c., in large packages, and 30c. in small. The general expectation is apparently for higher prices.

Cheese.—There is very little demand for cheese. The market is a waiting one, both buyers and sellers holding off in the

hope that the other will weaken. The situation, however, seems firm, stocks being light everywhere. White October cheese is quoted at 12½c., and white September at 13c., colored being ½c. more in each case.

Grain.—Demand for oats shows a slight improvement. Prices are 53c. per bushel for No. 2 white, Eastern Canada oats, 51c. for No. 3, 49c. for No. 4, and 49c. to 49½c. for Manitoba rejected, in store, in car lots.

Flour and Feed.—Prices of Manitoba spring wheat patents are \$6.10 per bbl., in bags, those for seconds being \$5.50. Meantime, the demand for bran has been so active that supplies are showing a decrease, and, as a result, prices have advanced \$1 per ton, at \$23 for Manitobas, in bags. Shorts are the same price, but are not in such active demand.

Hay.—Prices hold steady here at \$15 to \$16 per ton, carloads, on track, for No. 1 timothy, \$14 to \$14.50 for No. 2, \$18 to \$18.50 for mixed, and \$12 to \$12.50 for clover.

Hayseed.—Practically all the seed is out of farmers' hands. Alsike came out very early, and during the past few weeks red clover has been coming in rapidly. The crop was very short all round, alsike not being so scarce as red clover and timothy. Demand from farmers will be large this season, and has already commenced. Prices are very high, red clover being at \$22 to \$24 per 100 lbs., Montreal, in bag lots and upwards, alsike being \$17 to \$20, and timothy, \$6 to \$7.50.

Hides.—The market is unchanged, save on calf skins, which are 1c. up, at 7c. per lb. for No. 2, and 9c. for No. 1.

CHICAGO.

Cattle.—Beeves, \$3.60 to \$6.10; cows and heifers, \$1.70 to \$4.60; stockers and feeders, \$2.60 to \$4.60.

Hogs.—Light, \$4.15 to \$4.40; mixed, \$4.20 to \$4.50; heavy, \$4.20 to \$4.52½; bulk of sales, \$4.35 to \$4.40.

Sheep and Lambs.—Natives, \$3.25 to \$5.60; Westerns, \$3.25 to \$5.60; yearlings, \$4.90 to \$5.60; lambs, \$5 to \$7.15; Westerns, \$5 to \$7.20.

BUFFALO.

Cattle.—Prime steers, \$5.60 to \$6. Veals, \$5 to \$8.50.

Hogs.—Heavy, mixed and Yorkers, \$4.60 to \$4.65; pigs, \$4.35 to \$4.40; roughs, \$3.90 to \$4.10; stags, \$3 to \$3.50; dairies, \$4.50 to \$4.60.

Sheep and Lambs.—Lambs, \$5 to \$7.45; yearlings, \$6.25 to \$6.50; wethers, \$5.50 to \$5.85; ewes, \$5.25 to \$5.50; sheep, mixed, \$2 to \$5.50.

BRITISH CATTLE MARKET.

London.—London cables are steady, at 11c. to 12½c. per lb., dressed weight; refrigerator beef is quoted at 10c. per lb.

GOSSIP.

An Easy Disguise (to the barber) Lather me thoroughly—there comes my tailor.

Two ladies of the market were wrangling. Having used up all the usual names and insults, one virago burst out with: "Get out of it, you Chicago canned meat."

Great progress has been made in recent years by specialists in the production of improved varieties of fruits, vegetables and flowering plants. This progress has been made in spite of the great tendency manifested in all plants and animals to go back to the original type. It is indeed a battle to keep strains pure and up to the standard they have already attained, let alone any improvement. The practical results are accomplished by men operating largely for love of the work. Like Luther Burbank, in California, and Eckford, in England, as well as by the great seed merchants, D. M. Ferry & Co., of Windsor, Ont., who are not only eternally vigilant to hold what ground has been gained, but have a corps of trained specialists backed by ample means to conduct new experiments. The results of their experiences can be found in their 1908 Seed Annual, which they will send free to all applicants.



Life, Literature and Education.

[Contributions on all subjects of popular interest are always welcome in this Department.]

PEOPLE, BOOKS, AND DOINGS.

Chinese students are said to be flocking into the universities of Tokio.

Edmund Clarence Stedman, the banker poet, died recently in New York, at the age of 75 years.

Lord Curzon, of Kedleston, formerly Viceroy of India, has been elected a representative Peer of Ireland.

Ex-Empress Eugenie is about to undertake a trip to Egypt, thence to Ceylon. She is over eighty years of age.

Lady Drummond, wife of Sir George Drummond, of Montreal, has been made president of the first Women's Canadian Club.

It is rumored that Lord Charles Beresford will shortly retire from command of the Channel fleet, and that he will be succeeded by Admiral Sir Arthur Moore.

Mlle. de la Ramee, the authoress, known as "Ouida," died recently in distressing poverty. Her best-known novel, "Under Two Flags," was written in 1867. Recently it has been dramatized.

OUR LITERARY SOCIETY.

Study: "Macbeth."

The successful competitors in the "Macbeth" competition are, "Milla," Que.; J. D. Taylor, Galt, Ont., and L. E. H., Simcoe Co., Ont. Many of our readers will welcome this reappearance of "Milla," who, it will be remembered, made her first attempt at essay-writing last year, although at that time "sixty-four years of age." It will be readily seen that, with the practice, she is developing. Her essay on Macbeth is a credit to her, and it is pleasing to know from her own pen that she has "enjoyed the study."

Several others also submitted very creditable work on this topic.

Essay I. MACBETH.

In recent years, it is considered necessary, in studying Shakespeare's plays, to fix the date and order in which a play appears. As he wrote thirty-seven plays, for the stage and not for the press, no record being kept of date or order, and no authoritative edition issued during his lifetime, this is a difficult task. Macbeth is classed with his best tragedies, and is said to bear evidence of his matured powers of mind, also of being written at "white heat," or, in other words, rapidly, and when deeply interested.

Macbeth was written after the union of England and Scotland under James I., in 1603, as the following lines seem to imply:

"Some I see
That twofold balls and treble sceptres carry."—(iv. 1:117.)

James was crowned at Scone as James VI. of Scotland; afterwards at Westminster as James I. of England. The treble sceptres refer to the kingdoms of England, Scotland and Ireland. It is said Dr. Simon Forman wrote an account of this play in his diary, having seen it acted at the Globe Theatre in April, 1610. This diary is still preserved at Oxford. But this might not have been the first time the play was brought before the public. Consequently, the date of its production is fixed between the years 1603 and 1610. But the words, "Here's a farmer that hanged himself on the expectation of plenty," (ii.3:5), are thought to denote the year 1606, as wheat was an extremely low price that year. There are also some lines (ii.3:9) which are thought to refer to one Henry Garnet, who was tried the same year for complicity in the Gunpowder Plot. These two passages occur near together, and are taken as evidence of the date 1606.

The story, as given by Shakespeare, is along the following lines: Duncan is King of Scotland. One of his thanes, Macdonwald, has rebelled, and is assisted by the King of Norway. Macbeth and Banquo, generals in the King's army, the former his cousin, have quelled the

wife, who arrives at the same conclusion.

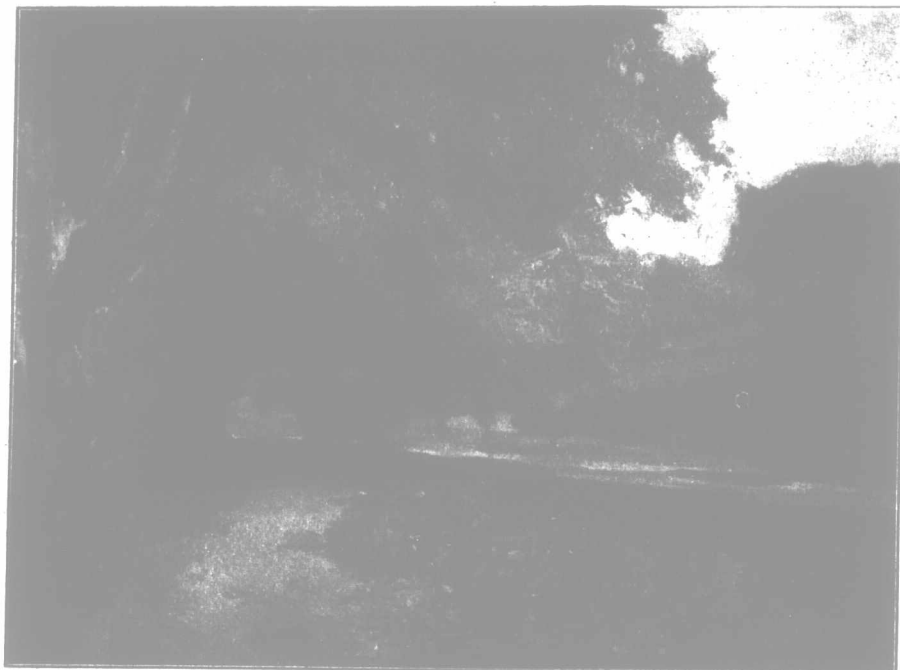
Fortune seemed to favor their designs, for, just as Lady Macbeth concludes reading the information sent her, a messenger appears with the news that Duncan and his sons are on their way to the castle, as also Macbeth. Arrived at the castle, Macbeth communed with himself, and shuddered at the thought of the deed, but was driven on by the taunts and more decided character of his wife to commit the murder. Lady Macbeth drugged the two grooms of the king, and suggested that they and their daggers be smeared with blood. Later, Macbeth declared he killed them in his rage. Duncan's two sons, Malcolm and Donalbain, flee for their lives, the first to England, the other to Ireland, and a report was circulated that they were the instigators of the murder. After Macbeth was crowned king, he remembered the promise to Banquo, that his descendants should be kings. He sent emissaries to murder Banquo and his son Fleance. The father is killed, but the son escaped. That same night a great banquet is held at the palace. Macbeth, who has been informed of the death of his old comrade, approached the table, and in his imagination the ghost of Ban-

quo came to Dunsinane Hill. There was given him, also, a vision of eight kings, and Banquo's ghost following, and pointing to them as his. The witches vanish, and Macbeth met Lennox, who informed him that Macduff, one of his thanes who refused to support him, had gone to England. He decided to seize the castle of Macduff and put to death his wife and children, a design which he immediately executed. Malcolm has been some time in England, and Edward the Confessor has promised him assistance. Siward, the Earl of Northumbria, Malcolm's uncle, with an army of 10,000 men, is prepared to assist in the overthrow of Macbeth. Macduff has joined Malcolm, and Ross now appears upon the scene, and informs him of the death of his wife and children. They then take leave of the King of England, and start with the army for Scotland.

The strong character of Lady Macbeth gradually succumbs under the strain of guilt and anxiety. She walks in her sleep, and babbles of the fearful secrets in her breast, and finally dies before the English army reach the castle. Just as the fact of the approach of the English army is confirmed, word is brought to Macbeth of the death of his queen. He seems little affected by it—simply comments on the shortness and vanity of life. While he is thus speaking, a messenger arrives who says Birnam wood is moving toward the castle. He is very much excited, and heaps abuse upon the messenger.

When the English army arrived at Birnam wood, Malcolm had ordered the soldiers to each cut and carry a bough of a tree, so their numbers might not be computed. At length they appear before the castle. Macbeth, in another part of the field, meets the son of Siward. They fight, and young Siward is slain. Macbeth still comforts himself with the thought that none of woman born can harm him. Very soon he encounters Macduff, who informs him he was not of woman born. A little later on Macduff appears with Macbeth's head, and salutes Malcolm as king. Malcolm expresses thanks to them all, and invites them to Scone to see him crowned. Thus ends Shakespeare's great tragedy, said to be one of the most powerful and harmonious of his works.

Approaching the historical part of the play, Shakespeare is said to have taken it largely from a "Chronicle of England, Scotland and Ireland," by Raphael Holinshed, and to have used a second edition, published in 1587. While this work was founded upon fact, as much legend as history had become incorporated into the story of Macbeth. But Shakespeare does not confine himself to even the historical facts, as given by Holinshed. Possibly he wrote more for dramatic effect than strict regard to history. Some suspicion is expressed of the truth of the rebellion of Macdonwald, which occurs in the early part of the play, although it is mentioned by Holinshed, and one account says Macbeth was assisted by the Norwegians to obtain the throne. While Holinshed records that Macbeth slew Duncan, the story, as told by him, is entirely different to that in the play. There is an account of a murder given by him—the



The Path.

(From a painting by Fred. S. Haines, Meadowvale, Ont.)

rebellion, and are returning to report their success, when they are met on a heath by three witches, who salute Macbeth by his title, "thane of Glamis," and also as "thane of Cawdor," and tell him he will yet be king. To Banquo, they predict his descendants shall be kings. King Duncan has been informed of the valor of his generals, and has sent Ross, one of his noblemen, to confer upon Macbeth the title, "thane of Cawdor," who meets Macbeth just after the weird sisters have disappeared. The speedy fulfilment of their words suggests to Macbeth he may become king by the murder of Duncan. He immediately sends an account of what has happened to his

quo has taken his place. The guests are aware something is amiss with the king. But Lady Macbeth assured them it was only a passing mood, that he had been subject to such humors from his youth. In asides she did her utmost to recall his self-control, but, in his excited fancy, Banquo's ghost still haunted him, and the feast ended in confusion and the withdrawal of the company. The next day he visited the cave of the witches, who called up different apparitions. One warned him against Macduff, thane of Fife; another assured him, "None of woman born shall harm Macbeth." The third told him he should not be vanquished until Birnam wood should

murder of Duncan's great-grandfather, King Duff, who was murdered by one Donwald and his wife. Possibly from this Shakespeare drew his murder scene. The events, as nearly as can be ascertained, are that King Duncan ruled about 1034-1040, and had a cousin, Macbeth, who had command of the army. Duncan was murdered by Macbeth, or employed some other person to do the deed, but Duncan was not murdered in Macbeth's castle, but at Bothgowan, or the Smith's House, near Elgin. Macbeth held the throne for some time, but was defeated by Siward, Earl of Northumbria, whose son was slain. Macbeth lived three years after his defeat by Siward, 1054, but was killed in battle with Malcolm, in 1057. It is said his reign was a time of great prosperity in Scotland, and that he supported the Church liberally. It is thought to be uncertain whether the characters Macduff and Banquo ever existed save in imagination. In passing, it may not be out of place to mention that "a desolate heath lies near Forres (in the north of Scotland, on the Moray Firth, about twenty-five miles from Inverness), and close by the town are the ruins of an old castle, which is said to have been used as a residence by Duncan, and afterwards by Macbeth." It is insinuated that Macbeth, as we now have it, has been somewhat changed from the original of Shakespeare. It was not printed until seven years after his death, and a younger dramatist, Middleton, is thought to have inserted the part by Hecate (iii. 5), in connection with the witches, also some others. It is possible some passages were cut out of the play for stage purposes. It is said Middleton's play, "The Witch," had some resemblance to Macbeth.

None of us would think of criticising this "greatest writer of any age," but we may feel at liberty to learn some lessons from the characters drawn by the master delineator of the emotions and passions of the human heart. Macbeth, the most prominent character in the play, will effect the imagination of different people in far different ways. M. Taine, in his book on English literature, says: "The life of Macbeth is a history of a monomaniac," and he concludes the description of his character thus: "Henceforth his thoughts dwell in a supernatural world, and to the last he walks with his eyes fixed on the dream, which has possessed him from the first."

To those of us not as charitably, possibly not as practically inclined, the witches suggest the temptations which occur in life. We are all conscious of two forces—good and evil—striving within us, and most of us are dominated at times by each. As Shakespeare's characters are always lifelike, they are always drawn with both these qualities in a greater or less degree.

Macbeth seems to have been a brave soldier when driven to face the foe, although there is throughout an indecision of character, in strong contrast to his wife's decision. He seems to have had some affection for his wife, and in a few instances gives expression to true and noble feelings. The suggestions of the witches held nothing evil in themselves. The thought of being king, as brought out by the play, could scarcely have been new to him, but he starts to hear it from the lips of others, he dallies with the thought, wants to hear more about it—in short, his heart was well prepared for it—and his overwhelming selfishness urges him on. No thought of his country's good; no feeling for others, however intimately he may have been connected with them; even in the murder of Duncan, he hesitates from selfish motives. The ruin of the man is complete; while the murder of Duncan calls out some regrets, the murder of Lady Macduff and her children was without cause, and useless to him. The ruin Macbeth brings upon himself is quite "as

much inward and spiritual as it is outward and visible."

Banquo's part in the play is a subordinate one, but his character is directly opposite to that of Macbeth. He is a loyal, upright soldier, perhaps quite as brave as Macbeth, and in the meeting with the witches he is frank and dignified. Their prophecy does not affect his loyalty, or suggest evil thoughts or deeds, because his heart is pure.

As regards Lady Macbeth, one writer says: "Macbeth's selfishness stands in marked contrast to her devotion to him, and we cannot but feel that if he had been a worthier man, she might have been one of the noblest women in Scottish history." On the other hand, had Lady Macbeth been a pure, true woman—a wise counsellor to her husband—she might have averted untold guilt and the consequent misery and ruin of both; in short, might have changed the page of history. "MILLA." Quebec.

It may be remarked that this essay would be improved by a little more care in regard to the tenses. It is not well to mix the tenses, from present to past, etc., too much.

[The other essays will appear at a later date.]

The Quiet Hour.

For the Lonely.

By Anna Benschel.

Lord! Lord! I plead for all, who—like to me—
Are kneeling, lonely, far from Church or priest;
We have no altar, save Thy love Divine,
Nor have we share in that all-wondrous feast.
Yet, leave us not bereft, dear Lord, I pray;
Within the corners where Thy love is known
Raise Thou an altar that our souls may see;
So shall we feel that we are not alone.
No, not alone, dear Lord, if Thou art there!
If Thou wilt be both Sacrifice and Priest!
And Thou, Thyself, the absolution give!
Oh, wondrous mercy! and, oh, wondrous feast!
We raise to Thee the lonely, broken prayer;
We feast on Thee in spirit, hearing naught
Of music trembling through the dim-aisled Church;
But Thou art with us as Thy Truth hath taught.
Strengthened and glad, O Lord, we lean on Thee,
Thankful for this sweet crumb our souls have known;
But, still, we long to greet Thee in Thy Church,
And kneel with others at Thine Altar-Throne.

Success Out of Failure.

By Phillips Brooks.

A child has certainly known only part of his father's love who has thought of his father as loving only in his indulgence. There is a whole other region of his father's love which he has never entered—the region in which his father, with a profounder care for him and also with a completer trust in him, shall show his mercy by denial. We can all remember, I suppose, how once if men had asked us how we knew God loved us, the answer that leaped to our lips would have been the flowing catalogue of all that He had given us, all the incentives which He had put into our lives, all the securities by which He had surrounded us, all the success by which He had shown us that we belonged to Him. These still remain; these are still on our lips when we sing His praises; but if we have at all compassed His love as the years have swept along, there is another side which has grown also dear to us, and which has in its dearth a peculiar depth and strength and sweetness which are all its own. There is a profound strain in our thankfulness which sings of the many times it has been through the exhibition of our own weakness that God has shown us His strength; of the

plans and purposes which He has brought to failure in order that out of their failure He might build success. It is a poor and wretched life which has not such consecrations of its disappointments and its miseries. A life which has not these carries as a burden what it ought to be hugging as a treasure; and one whole side of the perfect Sun of God's mercy, which burns with a glory all its own, this life has never seen.

When Trouble Comes.

When trouble comes, don't let despair,
Add to the burden you must bear,
But keep up heart, and smiling say,
"The darkest cloud must pass away."

Don't sit and brood o'er things gone wrong,
But sing a helpful little song,
Or whistle something light and gay,
And whistle half your care away.

The man who sings when trouble's here,
From trouble has not much to fear,
Since it will never tarry long
When stout heart meets it with a song.

Then don't forget, when things go wrong,
To try the magic in a song;
For cheerful heart and smiling face
Bring sunshine to the shadiest place.

Beauty in the Darker Seasons.

By Andrew Preston Peabody.

God has made everything beautiful in its time. It is with us in life as it is in our climate—the clear and sunny days far outnumber the cloudy and stormy. Happiness is the current; sorrow the ripple on its bosom. How many for us are the days that rise and set without a cloud! It is not when we call ourselves happy that we are the most happy. Indeed, when enjoyment is our special aim I think there is almost always some shadow of disappointment. When we pause and say, "I am happy," there is something less than happiness. But we are so constituted that our fullest enjoyment is found when we are quietly filling our place and doing our duty, when we know that we are faithful and useful, when the extensor muscles of the inner man are in vigorous and healthful exercise, when every day brings its fitting work and every nightfall sees it finished.

But in the darkened seasons through which we must all pass, there is, or may be, even a richer beauty, though hidden for the moment; for as under the rain-soaked and wind-swept furrows of the spring the hope of the year is bursting into life, so beneath the rains and dews of an afflicting Providence, God is ripening for us His harvest of purer desires, nobler purposes, higher aspirations, hopes that lay hold on life eternal. Then when the sun shines again, and life again smiles, if we have indeed yielded our souls to the tilth of the heavenly Husbandman, there is for us, if a more sober, yet a richer beauty, in the knowledge of divine things into which our faith has ripened in the experience of the Almighty love to which we betook ourselves for shelter in the storm, in the closer kinship with Heaven which, it may be, could have been opened for us only by some of the best beloved who have gone before us, and in the more faithful diligence with which we make all our steps on earth tend Heavenward.

No Lives Unfinished.

There are no lives unfinished, incomplete, God gives each man at birth some work to do,

Some precious stone of strange, prismatic hue
To carve and polish, till it shall be meet
To place within His temple, still and sweet,

Ere that be done the soul may not pass through
The door to grander worlds, to aim more true,

To wider life with love's sweet joys replete,
And if the working time be short, and earth

With its dear human ties be hard to leave,
Be sure that God, whose thought hath given thee birth,

Still holds for thee the best thou canst receive:
Be sure the soul in passing through that door,

Though losing much, gains infinitely more.

The Value of Quiet Thought.

By Charles Kingsley.

It is good for a man to have holy and quiet thoughts and at moments to see into the very deepest meaning of God's word and God's earth, and to have, as it were, Heaven opened before his eyes; and it is good for a man sometimes actually to feel his heart overpowered with the glorious majesty of God, and to feel it gushing out with love to his blessed Saviour. But it is not good for him to stop there, any more than it was for the apostles; they had to leave the glorious vision and do Christ's work; and so have we. For, believe me, one word of warning spoken to keep a little child out of sin; one crust of bread given to a beggar man because he is your brother for whom Christ died; one angry word checked when it is on your lips for the sake of Him Who was meek and lowly in heart—in short, any, the smallest, endeavor of this kind to lessen the quantity of evil which is in yourselves and in those around you is worth all the speculations, and raptures, and visions, and frames, and feelings in the world. For those are the good fruits of faith, whereby alone the tree shall be known whether it be good or evil.

A Blind Weaver.

A blind boy stood beside the loom
And wove a fabric. To and fro
Beneath his firm and sturdy touch
He made the busy shuttle go.

And oft the teachers passed that way
And gave the colors, thread by thread;
But by the boy the pattern fair
Was all unseen. Its hues were dead.

"How can you weave?" we, pitying, cried;
The blind boy smiled. "I do my best;
I make the fabric firm and strong,
And one who sees does all the rest."

Oh, happy thought! Beside life's loom
We blindly strive our best to do,
And He who marked the pattern out,
And holds the threads, will make it true.

Never Submit to "The Blues."

Perhaps you are depressed, "low-spirited," without special cause that you will confess even to yourself. Never listen to self-pity—unless you enjoy melancholy. Never brood. Keep busy. You cannot be self-centered and happy.

A woman's supreme joy is to be loved. Few things are more winning, more endearing than a sunny temperament. "Assume a virtue if you have it not." In manner be glad and gracious and joyous. At least keep your face bright, your smiles ready, your voice cheerful, and your heart will not long "be laggard to your lips." "See to it that every one likes a room better with you in it than out of it." If you are cross hide it as you would a crime. A certain little girl, when she was sulky, was obliged to sit on a high chair until she could sing a cheerful song. For a time she preferred misery to cheering up, but finally she piped her song of victory.

Dante places low in his "Inferno" those who willfully live in sadness. "He that hath so many causes of joy is very much in love with sorrow and peevishness who loses all these pleasures and chooses to sit down on his own little handful of thorns," says Jeremy Taylor.

If you are God's own child you must be ready to bear your burdens, take your knocks, and shoulder your way through the crowd with a bright eye, a brave smile and a cheerful heart.

On the night when our Lord ate the last supper with His disciples "they sang a hymn" before parting. Do you know what it was? The one usually sung at the close of that feast had for refrain: "O give thanks unto the Lord, for He is good, for His mercy endureth forever!" Then He went to Gethsemane.

One of the greatest joys of life is to make other people happy. We need to be needed.

Begin at home. Practice on the family. Little acts of loving kindness—off-recurring are worth more than occasional big services and sacrifices—because habit becomes second nature.

L'Envoi.

By Anna Benseel.

In those old days when life was rich for me,
And tender hearts beat warmly by my side,
I did not know the splendor of it all,
Nor how my life in theirs was satisfied.
Ah, no! I deemed love's tasks too wearisome;
I always cried to God for that or this;
Seeking for what I did not have or need,
Impatient of the dear caress and kiss.
Until (there was no other way to teach
My rebel-soul that what I held was sweet)
God sent unto my home a messenger
Who came with pallid brow and hurried feet.
In soft amaze I felt the love-tasks slip
Softly and swiftly from my careless hold,
And then I learned how empty hands
could ache
When no dear others reached, their own
to fold.
So now I sit in quiet loneliness,
Keeping the past in holy memory;
For even he whom death to me hath spared
Is far away—Oh, far away from me!
Dear Lord, I raise to Thee my empty hands,
My lonely heart, my restless, yearning soul;
Can all these tearful years bear fruit for Thee
When naught but selfishness has framed
the whole?
I bring the work my trembling hands
have wrought:
I bring the songs that Thou hast bade
me sing,—
Faltering, pain-strung, every chord and note,
But yet, dear Lord, my love's best offering.
The world may view my work with smile
or frown,
'Twill find, perhaps, too many faded leaves,
I shall not care—for those who loved me
most
May breathe a blessing o'er my
garnered sheaves.

GOLDEN WORDS FOR ALL DRIVERS.

ENCOURAGE YOUR HORSE.

The fact that, with few exceptions, all animals enjoy human companionship and that the horse ranks first in his appreciation of sociability is fully appreciated by all who understand equine nature. It is utterly impossible for a trainer to gain the respect and confidence of his charges if he does not talk to them. The amount and quality of conversation used in giving commands or in censuring the animal when a command has been misinterpreted is not sufficient. Take advantage of every opportunity that offers to give your charge a friendly word or pat; it will encourage him to greater efforts and incidentally will place you on more friendly terms with yourself.

The horse fully realizes when one speaks to him kindly, and although some so-called human beings may not always appreciate the kindly tone, the horse always does. The horse that trusts his master will do anything he can for him, which is not the promise of a politician, either. The horse will do it or die. One of the secrets of all skilled trainers and teachers is that a low, well-modulated voice is much more effective than harsh words or a whip. This is most especially true of the horse whose sensitive, excitable nature makes him so miserable and unstrung when angry words are yelled at him that he loses his head entirely, and the lesson such words were intended to convey is not only lost, but a bad effect is produced.—[Spirit of the West, Des Moines, Iowa.]

THE WORLD'S RADIUM.

The total known quantity of pure radium on the surface of the globe amounts to only 15 7-16 grains. Of this 15 milligrammes is owned by Mme. Curie; 20 by Sir William Ramsay; 20 by Sir William Crookes; 20 by Prof. D'Arsonval; 10 by Prof. Bordas; 10 by M. Becquerel, and 20 by Thomas Edison. Various medical and scientific societies own the remainder.

"THE FARMER'S ADVOCATE" FASHIONS.



6037.—Ladies' 10-Gored Skirt, 8 sizes, 22 to 36 inches waist measure.



6009.—Ladies' Wrapper, 8 sizes, 32 to 46 inches bust measure.



4251.—Child's Bath Robe, 7 sizes, 2 to 8 years.



4258.—Child's Coat, 4 sizes, 2 to 8 years.



4237.—Child's Apron, 5 sizes, 2 to 10 years.

The above patterns will be sent to any subscriber at the very low price of ten cents per pattern. Order by number, and be sure to give waist and bust measurement. Allow from one to two weeks in which to fill order.

Address: "Fashion Department," "The Farmer's Advocate," London, Ont.

[Note.—Where two numbers appear, ten cents must be sent for each number.]

The Ingle Nook.

Dear Dame Durden,—I am a constant reader of "The Farmer's Advocate," and have often thought of how I would like to draw up my chair among the Chatterers. Can any of you give me a nice plan for a St. Valentine party?

If vinegar is used with stove black in place of water, the blackening will burn much longer.

Raisin Layer Cake.—Three-quarters cup of butter, 2 cups of white sugar, 1 cup sweet milk, yolks of 4 eggs, 3 cups flour, 2½ teaspoons of baking powder, lemon extract. Bake in four layers. For top: Whites of 4 eggs beaten stiff, 2 cups of white sugar, ½ lb. of raisins, ½ lb. currants (chopped).
Oxford Co., Ont. ELEANOR.

You have not said whether your party is to be a dinner party, or just an evening party with an informal luncheon. We will judge, however, that you mean the latter. You might send your invitations on paper cut heart-shaped, the envelopes sealed with tiny red hearts. Decorate your rooms with red-red streamers, large red hearts, and small ones put in strings. For luncheon, have the same as you would ordinarily, but cut the sandwiches into heart shapes, and have one especial Valentine cake. To make it, bake in one layer, placing in it a silver heart or a ring for love, a silver coin for riches, and a darning needle for the spinster or bachelor. When baked cut into heart shapes, then ice each one. For entertainment, introduce love songs, and a variety of games, one of which might be to set the company at writing couplets on love, then give a prize for the best. All the couplets must, of course, be read out to the company. Then you might in introducing games in which partners play, hang two strips of cotton, etc., across the room in such a way as to leave a narrow, horizontal opening. The girls, who are all on one side, put their eyes to this opening, and the men guess who the owners are, each man who guesses right claiming the owner of the eyes for his partner. Another game would be to have each of the guests draw a cupid, prizes to be given in this contest also.

SOME MORE RECIPES:

Cupid Sandwiches.—(1) Make a plain cake, and bake it in a sheet. Cut into heart shapes, then split them, and fill with chopped figs and nuts, mixed with whipped cream. Finally ice with pink icing. (2) Make a rich biscuit dough, roll thin, cut into heart shapes, and bake. Split in two, butter, and fill with fruit as above, or with chicken salad.

Surprise Cake.—Bake a plain, walnut or pound-cake mixture in one sheet. Cut into as many pieces as there are guests; place a bit of white paper containing the half of a couplet in each, then ice. The completed couplets assign the partners for the first game after supper.

Valentine Ice Cream.—Partially freeze pink ice cream in a heart-shaped mould. Press into a wall, all around the sides and bottom, and finish freezing. Before serving, fill with a fruit salad, and heap with whipped cream.

OUR SCRAP BAG.

Take the lower part of a man's flannel shirt, which is nearly always good when the upper part is worn out, and make of it a warm little petticoat for some child. Gore it to fit on the hips, and attach to a waist.
M. B.

When blackening a stove, use a paint-brush to apply the blacking. It will save your hands wonderfully.

A friend has had separate tin bottoms made to fit into her cake and pie pans. She says she is never troubled now in turning cakes or pies out, as if they do stick a little, the bottoms are quite easily detached.

From a Newcomer.

Dear Dame Durden,—I notice in a recent issue of "The Farmer's Advocate" some comments on women of wealth and leisure. I have just read a few lines by the Rev. J. I. Vance, D. D. He says: "Money is not an evil in itself. It is a blessing, and may become one of the most powerful agencies for good, provided it takes the right place."

To my mind it is not wealth that has a deteriorating influence on women of riches. It rests entirely with the individual. It may be according to their tastes, ideas or inclinations. These may be either from heredity or early environment. For a well-balanced person, one with good judgment and common sense will make the most and best of their opportunities and privileges. True, some may be taken up for a time with a butterfly existence, but there comes in time a reaction, and they again find their natural sphere. Those who continue to enjoy idleness continuously would not be any better if they were in poorer circumstances, for they lack the force of character and ambition that makes a truly good and great person. Wealth brings many great opportunities. We see women with great riches leading in all good and philanthropic work, and it is to women we owe many of the reforms which have been brought about—charitable, social, political, educational and many others. There are people of culture and refinement, and education, which they have obtained through their wealth, who can converse on all political questions of the day as intelligently as any man who sits in Parliament. Many are accomplished in music, art and the sciences which have such a good and uplifting influence over people. There are those living in the rural districts enjoying nature study; learning the mysteries of the beautiful flowers, the song birds, the insects, the soil and the rocks, all which have such an elevating and high moral tendency. Then we sometimes see in the homes of the wealthy, people living the simplest lives; women actively engaged in studying domestic science, sanitation, hygiene, ethics, and many other things for improving the conditions of the home, mothers fulfilling their duty to their children by making a beautiful, healthful home, and instilling in them the highest ideals of a good and useful life. Many statesmen, politicians, authors and others of note, attribute their great success to their wives. It is claimed that rich men's sons go out in the world handicapped on account of their wealth. It is not the wealth, but the false sentiment in regard to the use of money. The Rev. F. DeWitt Talmage said in his Labor-Day sermon: "If you want your boys and girls to be brave and strong and self-reliant, then you must teach them to labor as you have labored." The reason why some people seem to be indolent, and not interested in things, may come from an uncongenial environment. There are so many misfits in life; so many square pegs in round holes. The only pleasure to be found in such work is that one is doing their duty, or the satisfaction in seeing their work well done. Leading physicians claim that congenial work has a potent influence over health; to be absorbingly interested, intensely in love with our work; to feel the blood coursing through one's veins is a stimulus to digestion and good health. Then we find a healthy mind in a healthy body. The same people were they in a congenial atmosphere might be a power in their special work or calling. Other thoughts come to me, but I must close, as my letter is now already too long.

Middlesex Co. A CANADIAN.

Hair Coming Out.

Dear Dame Durden,—As I enjoy listening rather than talking, I have never drawn up my chair among the Chatterers yet, and felt the warm glow of the Ingle Nook on my cheek. Being so much younger than most of the Chatterers, I feel a little timid and bashful about writing. I am afraid some of the older people will laugh at me when I say I think it is a great misfortune to have thin hair, and it coming out in handfuls when combed. I would be very much obliged if someone would please tell me what to treat my hair with so as to make it thick. I think I have stayed long enough this time, and wish

"The Farmer's Advocate" success, and the Chatterers a Happy New Year. Wellington Co., Ont. MISCHIEF.

Rub the scalp of your head hard every night with your fingers, and apply to the skin a little ammoniated mercury ointment, rubbing it in well. As this makes the hair rather oily, it will be necessary to wash it rather frequently; and, when washing, use spirits of green soap instead of ordinary soap. Moistening the hair occasionally with salty water is said to help in making the hair stay in, some of the bay-rum hair mixtures, which may be bought from any druggist, are also good. But whatever is used, daily massage of the scalp is very necessary, as it helps perhaps more than anything else in making the hair vigorous and healthy.

Knitting a Quilt.

Dear Dame Durden,—Having been an interested reader of your valuable paper for some years, I thought I would drop in and wish you and your many readers a Happy New Year. I would like to fill in odd moments this winter knitting a quilt. Could you, or any of the Chatterers, tell me how to knit the Cornucopia, or horn-of-plenty pattern?

DAISY BELL.

Can anyone send us directions for this?

Re Ducks' Feathers.

Will you please inform me, through "The Farmer's Advocate," how to care for ducks' feathers so as to prevent them from having an oily odor, also how to cleanse feathers which smell of the oil?

M. L. Y.

Que.

Has any reader had experience?

A Useful Hint.

"Gore," York Co., Ont., writes: "Perhaps some of your readers would like to know that wheat bran, half a cup or less or more, before meals, well masticated, is an excellent laxative. A little sugar, milk or cream makes it more palatable. I have found it excellent."

How To Make a Stencil.

A stencil is a design or pattern cut out with the background left in one piece. It is wonderful how many things stencils are used for. The first I cut were for the background of a stained-glass window, and were cut from thin tin with a very sharp knife. The tin was laid on a slab of glass while it was being cut.

For ordinary use I take strong wrapping paper, and oil it well with boiled linseed oil. If the pattern is to be used many times, I varnish or shellac the paper on both sides after it is cut. But the strong paper, well oiled, will do for most purposes. I have used it for a large design for the chancel of a church, for curtains, cushions and many small things. When cutting, I find a piece of wood under it does not dull the knife as quickly as glass, and the knife must be sharp, because if the edge of the pattern is not a clean cut—that is, if it has a rough edge—it will spoil the effect of the pattern. A very important thing to remember is that the "ties" or strips of the background left between the pattern to hold it together must be strong enough to do their work, or the pattern will fall to pieces. Sometimes the outline of the design furnishes enough ties, and sometimes others must be put in, then the designer's skill is shown because they must form part of the pattern, and not look like as if they were just stuck on. I am giving you the design based on a tulip that I decorated my curtains with.

The curtains were, though inexpensive, very artistic, and every one admired them. I used Diamond dyes, but you would find it easier to use oil paints thinned with turpentine. When a painter is stenciling, he takes a flat, round brush, dips it into the color (keep the color stirred up with a stick), and then rubs it on a piece of wood (the wood absorbs the oil); then he dabs the pattern, and the color left on the brush sticks to the wall, and there isn't enough to run under the edges of the pattern. For curtains and such things, I often use the hog's hair brushes that artists

use, especially if I am blending the colors; it is better to begin with flat colors.

First draw your pattern the size you want it; then oil it, and when the oil has soaked into the paper so that it is not sticky, cut it, being careful to remember the ties. Next prepare your colors, and be sure you mix enough to do the whole thing, as it is difficult to match the exact shade if you run short. Then stretch out the material for your



Design for a Stencil.

curtain. Unbleached, five-cent cotton makes a very artistic curtain with a stencil for a border; if done with oils will stand careful washing without soap.

When you have carefully marked the spaces where your pattern is to go, pin the stencil down firmly, and apply the colors. If your material is very thin, a piece of blotting paper underneath is a help.

It would be wise to experiment on a separate piece first, and be sure to use a separate brush for each color.

ELEANOR LYS.

Cheese cloth also stencils beautifully. Of course, it is to be understood that the pattern may be varied indefinitely. The swastika, clover, thistle leaf, maple leaf, are all good for designs. Invent your own pattern, drawing it first on paper, and see how interesting the work will be.—D. D.

"Trix" Reappears.

Dear Dame Durden,—I feel so thoroughly ashamed of myself for my long absence that here I stand trembling on the threshold, afraid to show my face for fear of meeting the cold looks which I know I have deserved. However, since I am invisible, I will muster courage and enter. I wish to apologize to, and at the same time most sincerely thank "A Constant Reader," "Weary Wanderer," "J. J.," for their very kind answers to my question re church work. I would like "Ruby" to know how immensely pleased I was to feel that I was missed. For many months, it has not been my fault, that I could not join in some of the weekly chats. I wish, Dame Durden, that you had labelled yourself at Guelph; I would have give a good deal to have had a few minutes' chat with you. I took advantage of the excursion to have a needful change.

I read and discussed the answers I received with the "Guild," but before we did anything, the male members of the congregation came to loggareads about this "site," and the "Guild" lost heart. I look forward to starting up again. As yet, I have not found the right way (surely there must be one) to rouse up or interest the members. It is always the same old cry, "Don't ask me, I'm much too busy." Some years ago, I was asked if I was going to be "too busy" to die. I often feel like asking them the same question.

May I please make a suggestion, Chatterers? Let us have more pudding recipes and fewer cake ones. For myself, I try to give the family a pudding every day, and I am quite indifferent about cakes. I looked over two years' "Advocates" this morning, and I am fully convinced that I only found one pudding to fifty cake recipes.

"Wrinkles" letter, in May 23rd "Advocate," interested me greatly. I almost imagined I had written it myself; it was my experience exactly. Our first immigrant was a treasure, only his wife could not get sufficient "dainties" for her husband's table, and insisted on his leaving. Her husband had sat at table with the Duke of Bedford in England, consequently the society here was rather

tame! The next was a stone mason, and I found my hands full with him. I just saved my cucumbers and melons in time, from being pulled up as weeds! I am an Englishwoman myself, and dislike to speak against the English, but certainly we have had the very worst class sent to us here. The stone mason's wife wanted me to buy a "comfort" for her baby; I suggested a fine-tooth comb would be the greatest comfort the child could possibly have. I am very interested in "A Lankshire Lass." I would like to hear from her so much; judging from her letters, I fancy we have both had our "cups of sorrow."

After such a long absence, I hope, dear Dame Durden, you won't think my letter too long; curtail it, if necessary. So many names are so familiar to me now, I am beginning to feel quite a friendship for some—"Helponabit," "Margaret Guthrie," and others.

For months and months I have been wanting to send you one or two wrinkles. They are out of season now, but tax your memories with them:

Tomatoes can be kept for several weeks by packing clean, sound, ripe ones in a stone crock, and covering with cold spring water, to which you add one cupful brown sugar and one cupful of vinegar to three gallons of water. Spread closely on top of the tomatoes a flannel cloth, then the crock cover.

To pickle beans: For some years I have sliced, ready for cooking, string beans, and put them in a stone crock, with salt between the layers, and last, but not least, put a heavy weight on a plate on top of the beans to immerse them in their own pickle. I have an eight- or ten-pound stone on mine. Either soak them over night, or put on early in the morning, and change the water two or three times.

Raisin Puff.—Two cups flour, 1 cup raisins (chopped fine), 2 eggs, 8 teaspoonfuls baking powder, 2 tablespoonfuls sugar, ½ cupful butter, 1 cupful milk. Steam two hours. Serve with sauce.

If any of the Chatterers would like a recipe for whole green-tomato pickle, or grape wine, equal to any you can buy, let me know, if I am allowed back again?

TRIX.

Certainly, come again, Trix. I think I may speak for all of the Chatterers. D. D.

Carmichael.
BY ANISON NORTH.

Copyrighted—All rights reserved, including that of translation into foreign languages, including the Scandinavian.

CHAPTER XIII.—Continued.

Some few there were, too, who said that Henry Carmichael and his son must have had words, since Henry Carmichael was the hottest-headed man in Oroway. But these, as a rule, were not listened to. Henry Carmichael almost worshipped the ground that his son walked on, everyone knew that, and if ever they had had words, who knew better than Dick Carmichael that it was just on again and off again with his father? Henry Carmichael wasn't the man to hold spite.

For my own part, I had long noticed, in my riding about the farm, that Henry Carmichael no longer shouted at his horses as he used to, and often, day after day, I would see him quietly following the plow, or putting up his fences, or stooking his grain, for the most part alone, for he did not seem to want men about him, except on pressing occasions, as when the grain was ripe for the cutting, or the clover ready for the storing.

Just once I met him, and so lonely and sad did he look that, perhaps for Dick's sake, I brought myself to look into his face and bid him a good day.

He was looking at me, and, involuntarily, it seemed, stopped his horse.

"Ye've heard from Dick?" he said.

"No, no!" I answered hurriedly, "Never!"

Then, thinking that, perhaps, he should know, "He has written to Gay Torrance, I believe. He says he is

doing well. He is up in the North Shore lumber woods."

He gave the reins an impatient jerk, as though to resent some imputation of unfaithfulness cast upon Dick.

"Yes, yes," he said, "I know all that. Dick writes to us every week. He's a good lad, Dick is. But I thought ye might ha' heard, too. Ye were rare friends when ye were little, Dick 'n' you, scamperin' over them hills, 'n' climbin' over them fences."

I made to go on, but he looked at me again, as if about to speak, and again, in spite of myself, I stopped.

"It's queer," he said, "how a fellow likes to talk about Dick!"

To this I knew not what to say, so rode on, and in a moment, looking back, saw him driving slowly on, his head bent, his horse going from right to left as it chose.

For one moment I longed to rush back and talk to him, tell him how sorry for him I felt, because I, too, had been lonely; then the hot blood surged to my face, and I, too, bent my head, and, giving my horse a cut, rode on.

Why, oh why was it that I, to whom the very sight of this man should be an abhorrence, should, at every unguarded moment, feel my heart going out to him, not in pity, nor in such love as the good feel toward sinners, but in genuine liking for himself?

But my watchman was on the tower again, and once more the gulf between me and Henry Carmichael was widening.

The sound of a voice made me start violently.

It was only old Chris who spoke. He was leaning on the fence which he had been repairing, rubbing his chin ruminatingly as he watched Henry Carmichael driving slowly down the road.

"Yon's a lonely man," he said, "Dash it, what did that son o' his want to dig out like that fer? I saw ye talkin' with him, Peggie."

"Yes," I said, "he misses Dick very much."

But Chris's thoughts were far from Dick.

"I tell ye, Peggie," he said, "ye're misjudgin' him as yer father did before ye. 'N' yer mother—my stars, but she's savage agin' him! Little wonder, mebbe, poor soul, thinkin' as she does about him; 'n' if ever a woman worshipped a man, yer mother worshipped yer father. . . . But Peggie, lass, as I've told ye often before, ye're all misjudgin' him, every mother's son o' ye. Henry Carmichael no more took that timber than I did, 'n' if he was mistaken about the line fence, why that's what man before him's been. 'N' as fer what happened after," lowering his voice and taking off his hat as with an involuntary act of respect to the dead, "it may jist be 'een only the exertion o' the fire," as the doctor said. It was unfortunate for Henry Carmichael that he happened to come up just then, but who's to know that it was the sight o' him that caused it, as yer mother thinks! . . . 'N' if it was, 'n' sure enough yer father didn't like the looks o' Carmichael, yet, Peggie—with no disrespect to the dead I say it, fer it'll be long before I'll find another man to think as much of as yer father—yet, Peggie, the longer I live, the surer I feel that we jist oughtn't to jump at our own notions o' people, 'n' think there's no good in them if they don't jist walk in the way we've set out. . . . People's not alike, Peggie. They're as different as posies in a garden, 'n' it 'ud be a queer, tiresome world if it wasn't that way. 'N' no matter what folks look like to us, mebbe it 'ud be wiser fer us not to believe anything bad o' them that we hev'n't jist proved to be so. It's usually a good thing, Peggie, to jist stop 'n' prove yer sum before ye set down the answer fer good 'n' all."

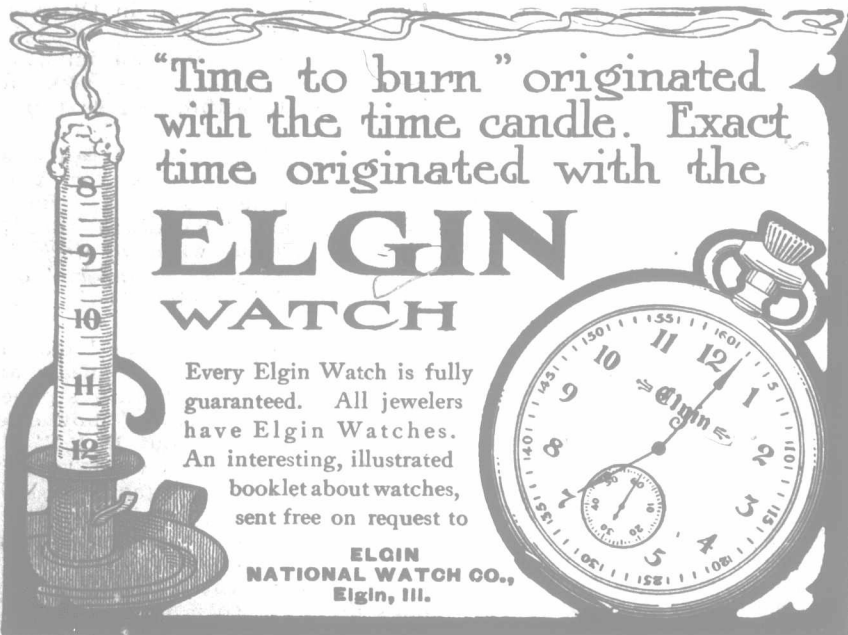
I said nothing, for I was mournfully thinking that Chris's logic should work both ways, and that, in his charity, the dear old man had set down his answer in regard to

"Time to burn" originated with the time candle. Exact time originated with the

ELGIN WATCH

Every Elgin Watch is fully guaranteed. All jewelers have Elgin Watches. An interesting, illustrated booklet about watches, sent free on request to

ELGIN NATIONAL WATCH CO.,
Elgin, Ill.



Consumption

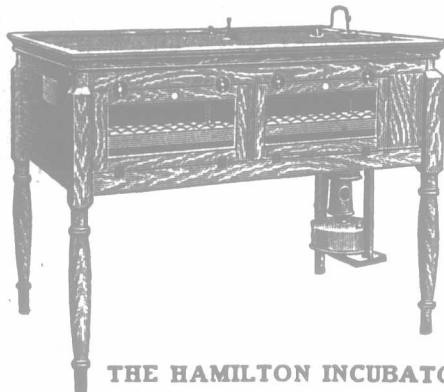
Book FREE

200 PAGE MEDICAL BOOK ON CONSUMPTION

This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of anyone suffering from Consumption, Catarrh, Bronchitis, Asthma or any throat or lung trouble, or are yourself afflicted, this book will help you to a cure. Even if you are in the advanced stage of the disease and feel there is no hope, this book will show you how others have cured themselves after all remedies they had tried failed, and they believed their case was hopeless.

Write at once to the Yonkerman Consumption Remedy Co. 469 Rose Street, Kalamazoo, Mich., and they will send you from their Canadian Depot the book and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Write today. It may mean the saving of your life.

HAMILTON INCUBATORS



WHY does the Hamilton Incubator hatch every fertile egg?
WHY does the Hamilton Incubator hatch such big, healthy, fluffy, robust chicks?
WHY does every chick hatched by the Hamilton live, thrive and grow so rapidly?
BECAUSE our Ventilating System, our Heating System and our Regulating System is perfect.
BECAUSE our directions for operating the Hamilton are correct.
BECAUSE our Brooder is of the newest and most novel design of anything on the market for rearing young chicks.

Send us your address to-day and we will mail you FREE one of our big catalogues telling you all about the Hamilton Incubators and Brooders, and how to become a successful poultry raiser. Agents Wanted.

THE HAMILTON INCUBATOR CO., LTD., HAMILTON, - ONTARIO



Women Cured at Home

Women's disorders always yield, from the very beginning of the treatment, to the mild but effective action of Orange Lily. Within two or three days after commencing its use the improvement becomes noticeable, and this improvement continues until the patient is completely cured. Orange Lily is an applied or local treatment, and acts directly on the womanly organs, removing the congestion, toning and strengthening the nerves, and restoring perfect circulation in the diseased parts. In order to convince all suffering women of the value of this remedy, I will send a 35-cent box, enough for ten days' treatment, absolutely FREE to each lady sending me her address. MRS. F. V. CURRAH, Windsor, Ont.



The Central Nurseries

are supplying splendid value in Fruit and Ornamental Trees, Shrubs, Roses, Grapevines, New Herbert Raspberry, Rykman Strawberry Plants in varieties. All well grown. True, dependable stock. Send for our Free Priced catalogue. We ship direct to our customers, with satisfactory results. Try us. 28th year.

Seed potatoes: Climax, Eureka, Eldorado, Peck's Early, Early King, Golden Coin, and others.

Poultry: R. I. Reds; none better; cockerels from \$1 up.

Baby Rambler.
Ever-blooming Crimson Dwarf. Think of roses every day from June until frost out of doors.

A. G. Hull & Son, St. Catharines, Ontario.

Henry Carmichael without proving it. What would he have had to say, I wondered, if he knew all, if he, too, had seen the momentary vision of that dark figure in the lightning flash.

Some of my incredulity must have crept into my face, for in a moment he resumed:

"Aye, ye think I'm just a dotin' old man, with notions, Peggie, 'n' ye see faults, mebbe, in Carmichael that my blind old eyes can't follow. Well, well, if it's so, lass, ye'll remember that we're all weak, 'n' all in enough need of pardon. Aye, it's a queer world this, 'n' often it seems a sore kind of a mix-up. But as ye get older things seem to straighten out somehow, 'n' bother ye less. I'm thinkin' when the Great Day comes ther'll be just a big straightenin' out, 'n' mebbe some of us 'll be kind o' surprised. It'll be a grand sight to me, Peggie, to see yer father 'n' Carmichael shakin' hands."

In spite of myself, Chris's confidence impressed me somewhat. Could he be right? And yet—no, no, Chris did not know all.

Once, just once, as I rode on, did an impulse come to me to ride straight to Henry Carmichael and tell him all, ask him fairly about his visit to our house on that eventful night. Then, again, the feeling that my doing so might somehow make things even worse for Dick, sealed my lips, and, putting my whip to the horse again, I rode swiftly home.

(To be continued.)

About the House.

CLEANING AND CLEANSERS.

The work of cleaning may be made a drudgery or a pleasure, as you choose. If you have bare floors and pantry shelves, and are afraid to use plenty of soap for fear of the expense, trusting to a scrubbing-brush and "elbow power" to make up the deficiency, you need wonder little if backaches and weary bones and a general weariness of the flesh are the outcome. Surely it would be better to do without something else and invest a little in labor-savers. Paint the kitchen floor; put nice white oilcloth that may be easily washed off on the pantry shelves; use plenty of soap—soft soap, at least, is cheap, and although it is rather hard on the hands, a little glycerine and rose-water lotion applied immediately after using it will prove a corrective. Then, have you tried any of the other cleansers—household borax, powdered or liquid ammonia, Dutch Cleanser, or even common salt. You know how grimy wash-bowls are likely to get sometimes after a single using; dust a little of any of these cleansers on, rub with a cloth, and see how magical the result will be. Try cleaning your windows with ammonia and water, or kerosene and hot water. Hair-brushes, too, may be cleaned like magic with a solution made of one quart warm water, one teaspoon ammonia, half teaspoon borax, and a little soap; wash, then rinse in clear cold water. Use plenty of soap in the dish-water to prevent stains. If tea-stains should, however, appear, rub them off with salt or ammonia. Clean the outside of granite or other pots by rubbing with salt. If food should happen to be burned in a vessel, fill it with cold water to which has been added a handful of washing soda; set on the back of the range and leave for two or three days, when it will wash off as clean as new without scraping the enamel off. Tin treated in this way can be made to look like new. Remember, too, that plenty of washing soda should be used in cleaning any vessel used in any way for milk. Milk is particularly likely to develop bacteria in seams, etc., where particles of it may lodge, hence thorough cleansing, with exposure, whenever possible, to bright sunshine, are very necessary.

Use flannelette broom bags for rubbing the dust off walls and painted floors, and long-handled dish mops for washing dishes—in conjunction, of course, with the ordinary dish-cloth, which must occasionally be used. In short, use every accessory you can think of to lighten your work. It pays.

WASHING WOOLLENS.

A little care in washing woollen garments will prevent the shrinking which troubles so many laundresses who are not masters of the situation. First of all, see that the water is merely tepid, not hot, and make it into a good lather with wool soap or soap jelly; soap of any kind should never be rubbed directly on woollen material. Wash the garments lightly through one or two waters, as may be required, then rinse well in clear water, also tepid; wring, shake well, and hang out immediately in a place where they will dry quickly without steaming in the slightest degree; never in the sun or near a hot stove or pipe. While drying, pull and stretch frequently into shape. It is seldom necessary to iron woollen garments; but if you feel that you must give them a rub, see to it that they are absolutely dry first, as, if not, steaming, and consequent shrinking, will be induced.

Soap jelly is made as follows: Cut soap (left-over bits will do) into bits; put it into a saucepan, and cover with a little water. Let melt slowly over the fire until thoroughly dissolved, then put in a glass jar, and keep for use. Do not make too much at a time, as it is better when not over a week old.

A FRIEND IN NEED.

Sometimes in spring, when the fruit supply begins to run low, the housewife is sadly put to it to know how to provide variety for the table. At such a time the thought of gelatine may come to her as a bright inspiration. Nowadays, all sorts of jelly powders may be bought—orange, strawberry, pineapple, pistachio, etc.—all ready for transforming into a dainty dish by dissolving in hot water according to directions and letting stand over night. Variety may be introduced into these by mixing in shelled nuts, a few bits of orange, Malaga grapes, etc., as one chooses. If you choose to have these in layers, proceed as follows: Make the liquid, pour a little of it into your mould and set out of doors or on ice to stiffen a little, keeping the rest warm and in a liquid state. When that in the mould has slightly thickened, sprinkle the nuts, etc., over the top, pour on some more liquid, and set away again, repeating the process until enough has been made. Keep in a cold place over night to stiffen.

Various homemade fruit jellies may be made with the uncolored, unflavored gelatine. Simply strain your fruit juice—often enough will be left in the sealers when the fruit has been used—heat it, adding a little water, if necessary, and put in an ounce of the gelatine for every pint of liquid. When dissolved, set away in a cold place to thicken. If you choose, when the mixture is nearly set, beat in the stiffly-beaten whites of three eggs, then let stiffen in a mould. It must be remembered that, although the liquid should be hot when the gelatine is put in, it should never boil.

Rich soup stock made from boiled-down bone-ends, etc., and strained through a very fine strainer may be jellied to make many attractive dishes. Mix with it enough lemon juice and vinegar to make sharp; then, while hot, add the usual proportion (an ounce to a pint) of uncolored gelatine, first, of course, dissolving the gelatine in a little cold water. Now to use the preparation, arrange pieces of hard-boiled egg in a mould, pour in some of the liquid, let thicken slightly, add slices of chicken, etc., then more liquid, and so on, until enough has been made. Other ways will suggest themselves. Part of the liquid may be kept out and colored with beet or spinach juice, cooled in a shallow dish, then cut in fancy shapes, and used as an aspic garnish about any kind of fowl or meat.

THE GERM OF THE BULLETINS.

MEATS.

[Adapted from F. Bulletins No. 34 and 193, issued by the U. S. Dept. of Agriculture.]

Meats are made up of lean or muscular tissue, and varying quantities of fat, which are found not only in layers but also in particles which are distributed among the fibres of the lean portion in such a way as to be invisible, except when separated by chemical means. When

EASY TO MIX THIS.

What will appear very interesting to many people here is the article taken from a New York daily paper, giving a simple prescription, as formulated by a noted authority, who claims that he has found a positive remedy to cure almost any case of backache or kidney or bladder derangement, in the following simple prescription, if taken before the stage of Bright's disease:

Fluid Extract Dandelion, one-half ounce; Compound Kargon, one ounce; Compound Syrup Sarsaparilla, three ounces. Shake well in a bottle, and take in teaspoonful doses after each meal and again at bedtime.

A well-known druggist here at home, when asked regarding this prescription, stated that the ingredients are all harmless, and can be obtained at a small cost from any good prescription pharmacy, or the mixture would be put up if asked to do so. He further stated that while this prescription is often prescribed in rheumatic affections with splendid results, he could see no reason why it would not be a splendid remedy for kidney and urinary troubles and backache, as it has a peculiar action upon the kidney structure, cleansing these most important organs and helping them to sift and filter from the blood the foul acids and waste matter which cause sickness and suffering. Those of our readers who suffer can make no mistake in giving it a trial.

A Scotchman whose name was Isbister had a maiden giraffe he called "sister"; When she said, "Oh, be mine, Be my sweet Valentine!" He just shinned up her long neck and kissed her.

CHAS. A. CYPHERS' Model Incubators and Brooders

On my Model Poultry Farm I now have poultry numbering 80,000 hatched and brooded in my famous Model Incubators and Brooders. Buying your incubators and brooders of a man who knows nothing (or next to nothing) about hatching and raising poultry is running a useless risk. Don't do it.



I not only sell you a Model Incubator or Brooder, but I add to them the valuable experience of years as shown in their construction. Model Incubators show excellent hatches, hatch every hatchable egg. The Model Brooder grow sturdy chicks. Send your order in to-day, and get in line with the profit getters. Free catalogue for everyone.

THE MODEL INCUBATOR CO.
196-200 River Street TORONTO, ONT.

New Telephone Directory.

THE BELL TELEPHONE CO., OF CANADA

is about to publish a new issue of the Official Telephone Directory for the district of Western Ontario, including the City of London.

Changes of firm names, changes of street addresses, or orders for duplicate entries, should be handed in AT ONCE TO

G. H. Beard,
Local Manager.

Mount Birds
Taxidermy Book FREE
We teach you by mail to stuff and mount all kinds of Birds, Animals, Game Heads; also to tan skins and make rugs. Decorate your home with your own beautiful trophies, or command big income selling specimens and mounting for others. Easily and quickly learned in spare time, by men and women. Success guaranteed. Write today for our FREE BOOK "How to Learn to Mount Birds and Animals" absolutely free. Write now
Omaha, Neb.
The N. W. School of Taxidermy, Box 48 S.

analyzed in this way, even very lean flesh, such as that of codfish, is found to contain a certain percentage of fat.

The lean of meat contains about 20 per cent. (the flesh of fowls averaging more, and that of fish less) of protein, the substance which most of all goes to build up muscle and keep the body from wasting away. This proportion, it may be noted, is about five times as much as in milk. . . . Fat is also a very valuable constituent of food. It is used in the body to form fatty tissue, and is consumed as fuel, thus serving to maintain the animal temperature and to yield energy in the form of muscular and other power. Owing to the possibility of digestive disturbances, however, it should be eaten in judicious quantities, the fuel constituents of vegetable foods rendering a smaller quantity of animal fat necessary. In fact, it should always be remembered that a one-sided diet is not good, and that to make a well-balanced ration a variety of foods is necessary. Meats also contain more or less mineral matter, such as the phosphates of potash, lime, and magnesia, which are of value to the body.

DIGESTIBILITY OF MEATS.

Many experiments have been made to determine the exact digestibility of meats, but the subject is a very complex one, and has not been settled with absolute satisfaction. It may, however, be definitely said that nearly all the protein and about 95 per cent. of the fats are digested by the average person, and this irrespective of the kinds or cuts of meat, or of the manner in which they are cooked, whether by boiling, roasting, or broiling, provided, of course, that these operations are properly done. Meat of all kinds and cuts is, in short, to be classed with the very digestible foods. Raw meat is, as a rule, more quickly digested than cooked, and lightly-cooked meat more readily than that which is thoroughly subjected to heat. Although scraped raw meat is sometimes used, cooking is, as a rule, to be recommended for the sterilization of organisms which may lurk among the tissues.

TEXTURE OF MEATS.

After slaughtering, meats undergo marked changes in texture. In the first stage, when the meat is just slaughtered, the flesh is soft, juicy, and quite tender. In the next stage, it stiffens, and the meat becomes hard and tough. This condition is known as rigor mortis, and continues until the third stage, when it becomes soft and tender, due to the formation of lactic acid, and acquires added flavor. The same effect may be produced, though more rapidly, by macerating the meat with weak vinegar.

THE COOKING OF MEATS.

Boiling.—If meat is placed in cold water, part of the organic salts, the soluble albumen, extractives, etc., are dissolved out. The smaller the pieces, the longer the time, or the hotter the water (upon allowing to cook) the richer will be the broth and the poorer the meat. If a piece of meat is plunged into boiling water, the albumen on the surface of the meat is quickly coagulated, and the enveloping crust thus formed resists the dissolving action of the water and prevents the escape of the juices and flavoring matters. It is impossible to make a rich broth and to have a juicy, highly-flavored piece of boiled meat at the same time. If the meat alone is to be used, the method should be as follows: Plunge the cut into a generous supply of boiling water, and keep as near the boiling point as possible for ten minutes, then let the temperature fall to about 180 degrees F., and let simmer thus until cooked. In cooking fish, plunge into water that is on the point of boiling, keep thus a few minutes, then allow to fall to 180 degrees.

Stewing.—In stewing, the meat should be cut into small pieces so as to present relatively as large a surface as possible. Cold water should now be put on and raised slowly until it reaches about 180 degrees F., when it should be kept simmering for some hours. Treated in this way, the broth will be rich, and the meat still tender and juicy. If the water is made much hotter than 180 degrees F., the meat will be dry and fibrous.

Broths, Soups and Meat Extracts.—These are stimulating to the nervous system rather than nourishing, especially drinks made from meat extracts, which

contain little besides the flavoring matters (extractives) of the meat, with some mineral salts. Meat extract is, indeed, not a food at all, but a stimulant, and should be classed with tea, coffee, etc. It should never be administered to the sick, except as directed by competent medical advice. Its strong, meaty taste is deceptive, and the person depending upon it alone for food would certainly die of starvation.

Roasting and Broiling.—When the meat alone is to be eaten, either roasting, broiling or frying in deep fat is, when properly done, a more rational method than boiling, for the juices are very largely saved. Roasts should be exposed to an intense heat at first to coagulate the exterior, then the temperature should be lowered. . . . A steak exposed to an intense heat for ten minutes is thoroughly cooked, and has yet that rare, juicy appearance which is so desirable.

CUTS OF MEAT.

It is to be remembered that the cuts of meat in those portions of an animal which do not move as it walks, and which are, therefore, not hardened into muscle, are the choicest portions of the meat for cooking. These comprise, in beef, the sirloin, porterhouse, tenderloin and ribs and chuck ribs, the last two being usually boiled. The brisket, shoulder, flank, round, shank are the poorer portions of the meat, and should be used for boils, stews, soups, potted meats, etc. Round steak may, however, be made very palatable as follows: First sear well to retain the juices, then put a little hot water over, cover well, and simmer for two or three hours, adding more water as necessary. When the steak is to be served, remove it, and thicken the liquid in the pan to make a rich gravy. Herbs and vegetables may be simmered in the liquid, if liked.

WHAT MARK TWAIN SAYS ABOUT BIRDS.

"The moment Tom begun to talk about birds, I judged he was a goner, because Jim knowed more about birds than both of us put together. You see, he had killed hundreds and hundreds of them, and that's the way to find out about birds. That's the way that people does that writes books about birds, and loves them so that they'll go hungry and tired and take any amount of trouble to find a new bird and kill it. Their name is ornithologers, and I could a been an ornithologer myself, because I always loved birds and creatures—and I started out to learn how to be one, and I see a bird sitting on a dead limb of a tree, singing, with his head tilted back and his mouth open, and before I thought I fired, and his song stopped, and he fell straight down from the limb, all limp like a rag, and I run and picked him up, and he was dead, and his body was warm in my hand, and his head rolled about, this way and that, like his neck was broken, and there was a white skin over his eyes, and one little drop of blood on the side of his head, and laws! I couldn't see nothing more for the tears; and I hain't ever murdered no creature since that warn't doing me no harm, and I ain't going to."

ONE OF MANY.

By Charlotte Mellen Packard.
None sought for beauty in that rugged face,
Her form revealed no subtle lines of grace,
But in the quiet of her fearless look
One read the life, as in, an open book.
Sorrow had walked with her; she shunned despair.
Love drew the poison from gray thorns of care,
Close to her staff of strength the helpless clung,
While little bells of Hope about them rung.
A lovely woman, on Life's common street,
Where myrads go, who never pause to greet,
She has no record in the Hall of Fame,
But lips grow tender as they speak her name.

STEVENS FIRE ARMS

are equally serviceable for field or target purposes. Stevens rifles hold more records than all other makes of rifles combined—a result of best materials, best workmanship and careful testing at every point. Stevens Repeating Gallery Rifle No. 80 is now made in two calibres, 22 and 25. For target uses it is unequalled by any make at any price. Perfect in workmanship, unequalled for straightest and hardest shooting. Send for 100-page catalogue full of valuable information. Sent free for 5c. in stamps. If your dealer can't supply genuine Stevens, notify us. **J. STEVENS ARMS & TOOL CO.** 25 Front Street Chicopee Falls, Mass., U. S. A.

A Book for Boys

"LETTERS TO THE FARM BOY"

BY HENRY WALLACE.

Full of racy, wholesome common-sense. Every farm boy should read it. The "old boys" all like it too. It will put you on the right track to success! Price, 50 cents. Order through this office.

Or we will send a copy, postpaid, as a premium for obtaining one new subscriber to "The Farmer's Advocate and Home Magazine."

Address:

The William Weld Co., Ltd.,
London, Ont.

A CLEAN-LOOKING FACE



Is preferable to a spotted, pimpled, blotched, angry-looking skin that gives a repulsive appearance. Get rid of it by using our reliable

Home Treatment

for young men and women, or anyone afflicted with any skin trouble. We cure when others fail.

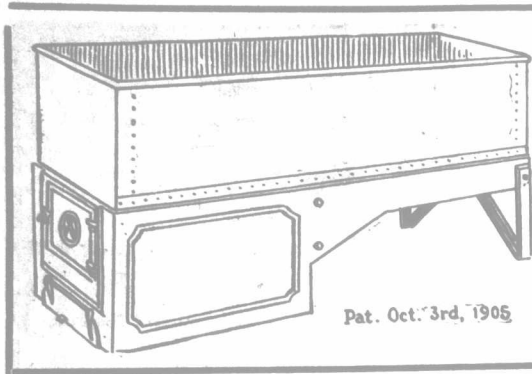
Superfluous Hair, Moles, etc., entirely removed by Electrolysis. Satisfaction guaranteed. Booklet "F" on request.

HISCOTT DERMATOLOGICAL INSTITUTE
FORMERLY GRAHAM Tel. H. 35. HISCOTT Bldg. 61 COLLEGE ST. COR. LAPLANTE AVE. TORONTO.

Every Woman
is interested and should know about the wonderful
Marvel Whirling Spray
Douche

Ask your druggist for it. If he cannot supply the MARVEL, accept no other, but send stamp for illustrated book—sealed. It gives full particulars and directions invaluable to ladies. **WINDSOR SUPPLY CO., Windsor, Ont.** General Agents for Canada.

\$12 Woman's Fall suits \$6.50
Tailored to order. Also suits to \$15. Send to-day for free cloth samples and style book. **Southcott Suit Co., London, Ontario.**

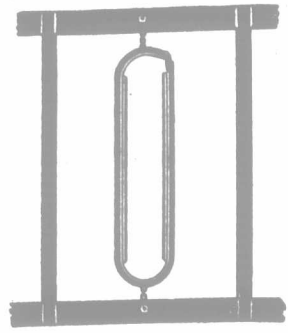


Farmers, Look Here!

We manufacture just what you have been looking for: **A SOAP EVAPORATOR AND AGRICULTURAL FURNACE.** The one furnace, with two pans. The best and cheapest thing on the market. Write for prices and full particulars.

The Mississippi Iron Works, Almonte, Ont.

Manufacturers of Circular and Drag Sawing Machines, Horse Powers, Monarch Fanning Mills, Well Drilling Machines, Ideal Steel Stanchions.



GOSSIP.

REPORTS OF OFFICIAL TESTS OF HOLSTEIN-FRIESIAN COWS.

These tests are all for a period of seven days, and are vouched for by Prof. Dean, of the Ontario Agricultural College:

1. Daisy Albino De Kol (8098), at 7 years 8 months 13 days, 411.55 lbs. milk; 15.80 lbs. fat, equivalent to 17.85 lbs. butter. Owned by Walburn Rivers, Folden's Corners, Ont.
 2. Evergreen March (3896), at 5 years 1 month 22 days; 443.9 lbs. milk; 15.25 lbs. fat, equivalent to 17.80 lbs. butter. Owned by G. W. Clemons, St. George, Ont.
 3. Lucretia Borgia (4432), at 4 years 8 months 29 days; 367.1 lbs. milk; 15.11 lbs. fat, equivalent to 17.64 lbs. butter. Owned by G. W. Clemons.
 4. Alice Wayne (4781), at 5 years 6 days; 408.4 lbs. milk; 14.29 lbs. fat, equivalent to 16.67 lbs. butter. Owned by G. W. Clemons.
 5. Aulinda Crown De Kol (6515), at 5 years 2 months 27 days; 509.79 lbs. milk; 14.17 lbs. fat, equivalent to 16.53 lbs. butter. Owned by Wm. Slaght, Bealton, Ont.
 6. Ianthe Jewel Mechthilde 3rd (5538), at 3 years 8 days; 365.88 lbs. milk; 14.03 lbs. fat, equivalent to 16.37 lbs. butter. Owned by M. L. Haley, of Springford, Ont.
 7. Emma Wayne 2nd (6514), at 9 years 11 months 3 days; 377.83 lbs. milk; 13.70 lbs. fat, equivalent to 15.98 lbs. butter. Owned by Wm. Slaght.
 8. Ruth Tensen (6940), at 4 years 3 months 22 days; 484.8 lbs. milk; 13.55 lbs. fat, equivalent to 15.81 lbs. butter. Owned by A. E. Smith & Son, Millgrove, Ont.
 9. Princess Calamity Posch (4820) at 4 years 7 months 6 days; 424.85 lbs. milk; 13.35 lbs. fat, equivalent to 15.58 lbs. butter. Owned by Walburn Rivers.
 10. Ianthe Jewel Posch (6821), at 2 years 6 months; 382.4 lbs. milk; 13.29 lbs. fat, equivalent to 15.50 lbs. butter. Owned by James Rettie, Norwich, Ont.
 11. Netherland Tensen (3423), at 9 years 1 month 15 days; 431.3 lbs. milk; 13.04 lbs. fat, equivalent to 15.22 lbs. butter. Owned by A. E. Smith & Son.
 12. Pontiac Atlas Maid (6956), at 2 years 11 months 14 days; 355.1 lbs. milk; 13.02 lbs. fat, equivalent to 15.19 lbs. butter. Owned by James Rettie.
 13. Artalissa (5945), at 3 years 10 months 28 days; 358 lbs. milk; 12.66 lbs. fat, equivalent to 14.77 lbs. butter. Owned by James Rettie.
 14. Countess Daisy Clay (6424), at 3 years 9 months 1 day; 385.2 lbs. milk; 12.21 lbs. fat, equivalent to 14.25 lbs. butter. Owned by Walburn Rivers.
 15. Ina Pauline Mercedes (8063), at 2 years 7 months 12 days; 314.40 lbs. milk; 11.83 lbs. fat, equivalent to 13.80 lbs. butter. Owned by H. Bollert, Cassel, Ont.
 16. Calamity Posch Wayne (7177), at 1 year 10 months 9 days, 236.1 lbs. milk; 8.13 lbs. fat, equivalent to 9.48 lbs. butter. Owned by Walburn Rivers.
- G. W. Clemons, Secretary.

At the Western National Stock Show, at Denver, Col., last month, the grand champion steer in the fat-stock classes was the Hereford yearling, Fulfiller 6th, shown by Cargill & Price. He was sold by auction for 21c. per pound. The champion load of feeders were also Herefords. At a joint sale of Herefords, at Beaver, Jan. 24th, 79 head sold for an average of \$135, the two-year-old bull, Wild, selling for \$1,000.

If you will carefully compare Samson-Lock Fencing with other wire fences erected in your neighborhood you will be convinced with its superior merits. You will observe that

SAMSON-LOCK FENCING

is the heaviest, strongest, stiffest of them all. Strength and quality considered, it is the cheapest wire fencing on the market at the price it can be erected for.

Samson-Lock Fencing is an investment that will appeal to every shrewd farmer in your locality.

A LIVELY AGENT CAN MAKE MONEY quickly acting as our representative. Exclusive territory to the right men. Write to-day for our good proposition.

Locked Wire Fence Co.,
Limited,
LONDON,
ONTARIO.

The fence that restrains the Wild Buffalo at Elk Island (Government) Park, near Ft. Saskatchewan, Alberta, is Lamb Fence. Twenty miles of Lamb Fence around this park, which contains over Four Hundred Wild Buffaloes, the only large herd of Buffaloes in the world.

If Lamb Fence will hold a Wild Buffalo, it surely will hold the most vicious domestic animal.

Lamb Fence is a fence that will go over any hill or through any valley—a fence with a straight, hard steel upright and a knot that never slips—a fence with wires of even length—a fence made of high-grade steel wire—a fence that will continue to be its owner's pride.

OUR AGENTS ARE PROSPEROUS

They have a line of fence that sells readily and gives entire satisfaction. They have a firm behind them that treats them right in every way.

The H. R. LAMB Fence Co., Ltd.
Winnipeg, Man. London Ont.

HORSE-SHOW WEEK IN TORONTO.

The Horse Show, to be held in the St. Lawrence Arena, Corner of Jarvis and King Streets, Toronto, February 12th to 14th, will usher in a series of events of much interest to horsemen. Round-trip tickets for single fare will be sold over all lines from all stations in Ontario on February 11th to 12th, and from all stations within 75 miles of Toronto on February 13th and 14th, all tickets good to return up to and including February

15th. These rates, together with the small outlay required to see the Exhibition, should ensure a large attendance. The official opening will be held at 2 p. m. on Tuesday, February 12th.

We have received a handsome illustrated programme of European travel, "Naples to Norway," under personal escort. Free copies will be sent on application to F. Withrow, B. A., Toronto.

TRADE TOPICS.

ABSORBINE INCREASED COLT'S VALUE \$50.—Mr. Joseph Crooker, Kingman, Me., writes, under date of Nov. 26, 1907: "I got my local dealer to send to you for a bottle of Absorbine, and used it with great results. I had a colt that had a bunch on the hock joint, and your Absorbine cured it so there is not a blemish to be seen on her now. My colt will sell for \$50 more to-day than she would before I used Absorbine."

Now is the time to get your stock in proper condition for the season's work or for the sale. A lame, blemished horse can be made sound and smooth with Absorbine, without laying up the horse. No blister, no hair gone. Look over your stock to-day so that when the horse buyers are searching your country you will have good, sound stock, and get a price accordingly. Absorbine cures lameness, kills pain, removes bog spavins, thoroughpins, splints, wind puffs, shoe boils, enlarged glands, and similar bunches in a mild, pleasant manner. \$2 per bottle at all druggists, or express prepaid upon receipt of price. W. F. Young, P. D. F., 78 Monmouth St., Springfield, Mass.

SHEET METAL ON THE FARM.

It is fortunate that, as lumber is growing scarcer and dearer, other materials are being found to take its place. Of these, sheet metal easily takes lead in its use in building. Some of the finest barns in the country are now enclosed almost entirely with sheet metal; while steel shingles are rapidly taking the place of wooden ones for houses, barns and outbuildings. The reason is not simply that lumber and wooden shingles are growing more and more expensive—the sheet-metal shingles, and especially the roofings, have proved to be superior all round. Steel shingles, or plain sheet roofing, generally costs a little more than ordinary sawn shingles, but as it can be put on much quicker the total cost is very little greater. In the end, the metal roof is much cheaper. If made of reliable goods, properly laid, it will be rain, wind and fire proof long after the wooden roof has rotted out and been replaced. Sheet metal removes most of the danger of fire, which, once started in a group of wooden-roofed buildings in the country, where there is no fire-fighting apparatus, is pretty sure to destroy them all. Fire-insurance companies recognize this, and insurance averages one-third less on metal-roofed buildings. Metal roofing sounded the death-knell of the lightning-rod man. A steel-roofed building needs lightning protection no more than a duck needs an umbrella. If lightning strikes, it is instantly scattered over the whole roof, and made absolutely harmless. The man who intends to build house or barn will do well to look into the question thoroughly. The pioneers in the manufacture of sheet-metal goods in Canada are the Metallic Roofing Co., of Toronto. See their advertisement, and send for their handsome catalogue, which is full of valuable pointers and information.

GOSSIP.

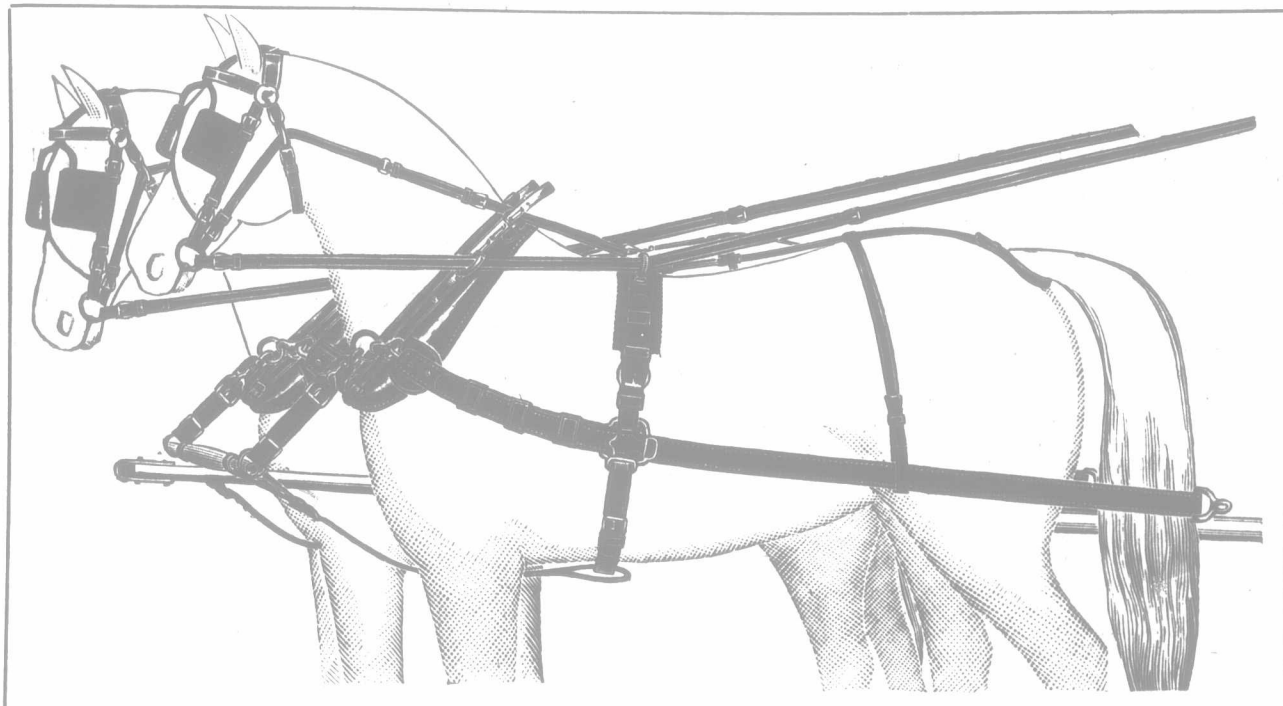
The annual meeting of the Ontario Horse-breeders' Association will be held at the Walker House on Thursday, February 13th, at 8 p. m. All members of the Association are respectfully requested to be present. Matters of importance and of interest to the horse industry will be brought up for discussion.—Wm. Smith, Columbus, President; A. P. Westervelt, Parliament Buildings, Toronto, Secretary.

With regard to the illustration in our issue of January 23rd, page 116, of two foals, sired by Mr. Mossip's stallion, Colston Leader, we are asked by the owner of the stallion to correct an error which appeared in the "Gossip" columns of that issue concerning these foals. It was erroneously stated that the foal on the right, which was second in the agricultural class at the Western Fair, 1907, belonged to Mr. Mossip, whereas it was bred and owned by Richard Birch, of Anderson, Ont.

EATON'S POPULAR FARM HARNESS \$25.⁰⁰

The ideal of a moderately priced, perfectly made farm team harness. Have every confidence in this being a serviceable, strictly new and up-to-date set, **DIRECT FROM THE MAKER TO YOU.** Consider the material, workmanship and extremely low price. It's one of the greatest values we've ever been able to offer in a farm team harness.

To customers desiring a better finished harness, we can supply our A9-150F, same description as A9-160F, only with round cheeks, winker stays, fancy patent leather housings, painted hames, X. C. mountings, and leather bottoms in pads. **Price, \$30.00.**



A9-160F PRICE, \$25.00.

Harness costing \$25.00 or over SHIPPED FREE in Ontario, Quebec, New Brunswick, Nova Scotia and Prince Edward Island.

THE T. EATON CO. LIMITED TORONTO

- BRIDLES— $\frac{3}{4}$ cheeks, patent leather blinds (or open if desired), winker stays and side cheeks flat, good team fronts and rosettes, stiff or jointed bits.
- LINES— $\frac{3}{4}$ full length with snaps.
- COLLARS—Good strong work collars, cloth face, open top.
- HAMES—High top wood, steel bound with clip and staple.
- HAME TUGS— $1\frac{1}{2}$ by 18 inches, three-ply with double-grip trace buckles.
- TRACES— $1\frac{1}{2}$ -inch, three-ply, 6 feet 3 inches long, wrought iron, ookeyes.
- MARTINGALES— $1\frac{1}{2}$ -inch, heavy, with dees.
- BREAST STRAPS— $1\frac{1}{2}$ -inch, heavy, with slides and snaps.
- BACK BANDS—Padded, felt lined, with leather housings.
- BACK STRAPS—With buckled cruppers and hip straps.
- MOUNTINGS—JAPAN.

Entire satisfaction guaranteed. If in the least unsatisfactory, we will exchange, or cheerfully refund the money, and pay all transportation charges.

GOSSIP.

Mr. Alex Burns, Rockwood, Ont., advertises for sale young Shorthorn bulls and females. The herd is headed by Imp. Scotland's Fame =50087=, sire of young stock offered for sale; son of the Duthie-bred Golden Fame (76786).

Elsewhere in this issue L. K. Weber, Hawkesville, Ont., is offering for sale or exchange his Shorthorn stock bull, Good Morning (imp.), four years old, an A1 stock bull, quiet and sure; also one Percheron stallion, six years old, of great action, weight and conformation, true to type, sure foal-getter, and well broken to harness. The young Short-horns offered are an extra good lot, all by the imported stock bull, and dams direct from imported stock. Prices and terms in favor of buyer.

THE PRICE OF IMPUDENCE.

They pay high for pork in the States, if some reported sales are bona fide, which it is not easy to believe they are. The Live-stock World reports the purchase by F. F. Oerly, Oregon, Mo., from J. C. Hanna, of the four-year-old champion Poland-China boar, Impudence, for \$10,000. The World says that the price is net. Impudence was bred by Mr. E. H. Ware, Douglas, Ill., who sold him, with a litter mate, to Mr. W. D. Ware, Yates City, Ill., for \$25 the pair. At ten months he fetched \$50 to Frank Wolgamuth, Elgin, Ill., for whom he won the Iowa State Fair championship. Mr. Wolgamuth and others showed his gets with success. One of these, the boar, Pirate, fetched \$5,000, and his owner sold a quarter interest in him at \$2,500. Another named American Special was bought by Messrs. Matthews Bros. & Hufford, Ellettsville, Ill., for \$4,000.

TRADE TOPIC.

For agricultural furnace for heating water or cooking feed for stock, see advertisement of the Mississippi Iron Works, Almonte, Ont. The same firm make a specialty of sap evaporators for use in making maple syrup and sugar.

A Blended Flour

(of Ontario and Manitoba Wheat)

Makes the **WHITEST BREAD**

- “ “ **LIGHTEST BISCUITS**
- “ “ **TASTIEST PASTRY**
- “ “ **DAINTIEST CAKES**

BLENDED FLOURS are TWO flours in one.

The famous Bread and Pastry making qualities of Ontario fall wheat—are combined with Manitoba spring wheat, which adds strength and nutriment.

BLENDED FLOURS are not only the best for all home baking—they are also the **MOST ECONOMICAL.** They yield **MORE** bread, cake and pastry to the pound than any other

Try it, and you will use no other.

“Made in Ontario”

This is the sign of a Blended Flour



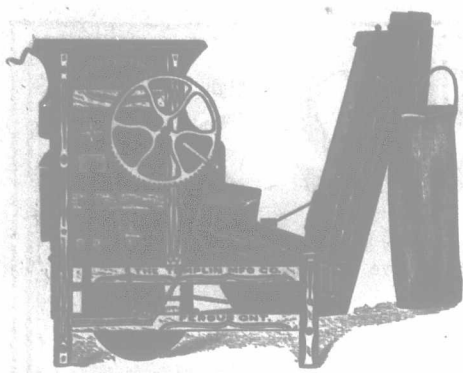
Look for it whenever you buy.

SUBSCRIBE FOR “THE FARMER'S ADVOCATE AND HOME MAGAZINE.”

Mr. John Vance, Tavistock, Ont., writes: “I have recently sold to Mr. Wm. C. Kidd, of Listowel, Ont., the Clydesdale stallion, Arch Druid, rising three years, one of the short-legged, thick-set kind; in appearance, much like his sire, Durbar (imp.), a son of Baron's Pride. My other stallions are wintering well. Milton Chief (imp.), who swept everything wherever shown last spring, as a three-year-old, weighs over 1,900 lbs.; he is by the Cawdor-cup winner, Royal Garty, and his dam by the good breeding son of Baron's Pride, Up to Time. A two-year-old, by Argosy, the son of Sir Everest, is developing into a grand individual.”

SALE DATES CLAIMED:

- Feb. 12th.—John E. Disney & Son, Greenwood, Ont., Shorthorns and Clydesdale mares (imported and home-bred).
- Feb. 14th.—R. H. Reid & Sons, Pine River, Ont., Shorthorns.
- Feb. 19th.—At Peterboro, Ont., Clydesdales, Hackneys and Percherons, by T. H. Hassard, Millbrook, Ont.
- Feb. 25th.—Geo. Rice, Tillsonburg, Ont., Holsteins and Yorkshires.
- Feb. 26th.—Stephen Nicholson, Sylvan, Ont., Shorthorns.
- March 3rd.—S. J. Pearson & Son, Meadowvale, and F. A. Gardner, Britannia, Ont., joint sale of Shorthorns.
- March 4th.—Provincial sale of pure-bred cattle, at Guelph.
- March 5th.—Joint sale of Shorthorns, at Hamilton, Ont., W. C. Edwards & Co., Rockland; Sir Geo. Drummond, Beaconsfield, and Peter White, Pembroke.
- March 6th.—Robert Miller and Donald Gunn & Son, at Stouffville, Ont., Shorthorns.
- March 11th.—Provincial sale of pure-bred cattle, at Port Perry, Ont.
- March 12th.—Donald Gunn & Son, at Dunrobin Farm, Beaverton, Ont., Clydesdale mares and fillies, imported and Canadian-bred.
- March 18th.—N. A. Steen & Sons, Meadowvale, Ont., Shorthorns.



PERFECTION

Seed and Grain Separator

Patented 1901.

The best mill on the market for cleaning and grading all kinds of seed and grain.

A big improvement on the old fanning mill. Pays for itself in one season. Highest awards Toronto, Ottawa and London Fairs, 1907.

See nearest agent, or write for free catalogue "F" to

THE TEMPLIN MFG. CO.,
Fergus, Ontario.
G.T.R. C.P.R.

You cannot possibly have a better Cocoa than

EPPS'S

A delicious drink and a sustaining food. Fragrant, nutritious and economical. This excellent Cocoa maintains the system in robust health, and enables it to resist winter's extreme cold.

COCOA

Sold by Grocers and Storekeepers in ½-lb. and ¼-lb Tins.



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.

BARRED ROCKS—Cockerels at \$1.50 to \$2. Be it utility and exhibition strains. See my winnings at Midland and Lindsay. First-prize cock only \$4. A. E. Donaghy, Colborne.

HENS will lay eggs all winter if you use "Egg One," the world's best egg-producer and poultry tonic. Guaranteed cure for roup, colds, cholera, bowel complaint, swelled head, and all poultry diseases. Price, 25c per box; 5 boxes \$1 by mail, postpaid. Hundreds of testimonials. Agents wanted. Write to-day. G. Norman Shields, manufacturer, 30 Close Ave., Toronto, Ont.

MAMMOTH Bronze turkeys. Stock from the first-prize tom, Western Fair, 1907. G. E. Nixon, Arva, Ont.

MAMMOTH B. turkeys for sale, bred from imported stock. Young birds took 1st and 2nd at London, 1907. Pairs and trios mated not akin. R. G. Rose, Glanworth Ont.

MAMMOTH Bronze turkeys for sale. Bred from a heavy prize-winning tom and high class hens. T. Hardy Shore & Sons, Glanworth Ont.

PLUM Creek Barred Rock and Silver Grey Dorking cockerels for sale. Good birds. Stanley S. Garland, Flamborough, Ont.

PURE BRED Barred Rocks, White Wyandotte and White Leghorn cockerels, \$1 each. John R. Moran, Wales, Ont.

ROUEN ducks for sale. Won first prizes at fall and winter fairs. Write J. Imrie, Romney.

THREE Brahma hens, one cock, \$10; three Dorking pullets, one cockerel, \$10. Some good Brown and White Leghorn cockerels, cheap. F. W. Krouse, Guelph.

WHITE Wyandotte, White Leghorn cockerels, bred for business and beauty; \$1.50, worth double. E. W. Burt, Pa. is, Ont.

Hatch Chickens by Steam with the EXCELSIOR INCUBATOR Or WOODEN KEN

Simple, perfect, self-regulating. Hatch every fertile egg. Lowest priced first-class hatching machine. GEO. H. STAHL, Quincy, Ill.

GOSSIP.

A registered Clydesdale stallion, six years old, is advertised for sale in this issue by J. C. Anderson, Morganston, Northumberland County, Ont.

R. NESS & SON'S CLYDESDALES.

It is safe to say that no other one man in Canada has done more for the improvement of draft horses in Canada than Mr. Robt. Ness, of Howick, Que., and that no other one man now in the business has made so many importations. Acknowledged to be one of the most critical judges of Clydesdales on this continent, for years his services have been in demand at the leading shows from the Atlantic to the Pacific. So high a place does he hold in the estimation of the public as an expert judge that when Robt. Ness pins a ribbon on an animal in the show-ring, it is generally conceded that the best horse won. His expert judgment is the keynote of his remarkable success as an importer, his importations always finding a ready sale, and he is never found begging for purchasers. He is particularly partial to quality, a sweet-turned mould, and straight, true action. In these respects his latest importation certainly excels. Few, if any, horses ever landed on these shores possess quite as much of the symmetry of mould, style of carriage and quality of underpinning as the bay four-year-old, Baron Silloth [6128], by the great Baron's Pride; dam by Lord Lothian. With such rich breeding on the sire's side, backed by four registered dams, and his almost perfect individuality, little more could be desired. As a three-year-old, he had a £100 premium, and has to his credit first and championship at the Dominion Exhibition, Halifax, 1906, and the same at Sherbrooke, 1907. Vanderbilt (imp.) [6124] is a bay three-year-old, by the champion Casabianca; dam by Fickle Fashion; grandam by Height of Splendor; he has four registered dams, and last fall won fourth at Toronto and first at Sherbrooke; he is one of the right good sort. Fickle Baron [7719] is a bay two-year-old, by Baron's Pride; dam by Macgregor, by Cedric, royal crosses every one; he has five registered dams, and last fall won second at Sherbrooke; a beautifully-turned, quality colt that captivates when he moves. Hiawatha's Heir [6755] is a brown two-year-old, by the invincible Hiawatha; dam by Fickle Fashion; grandam by Height of Splendor; he has four registered dams; was first at Sherbrooke, and his individuality is in keeping with his royal breeding. Fusilier [13482] is a bay two-year-old, by Baron's Pride; dam by Macgregor; grandam by Cedric; this colt has four registered dams, and style, smoothness and quality to spare. Royal Benedict [6754] is a bay yearling, by the great Benedict; dam by The Royal Standard; grandam by Macankie; this is a royal colt; he won first at Toronto and Sherbrooke. From the above, it will be seen that this lot are exceptionally richly bred, and cannot fail to please prospective buyers. The firm have also on hand a number of imported and Canadian-bred mares and fillies, whose individuality, breeding, size and quality are all that the most discriminating buyers could desire, among them being Belle of Dilldown, a bay yearling, by Benedict, by Baron's Pride; this filly, last fall, won third at Toronto, first at Sherbrooke, and fourth at Chicago. Strawberry Bloom is a brown two-year-old, by Royal Fashion; dam by The Dean; she was third at Toronto, and first and champion at Sherbrooke. Queen Catherine is a bay three-year-old, by Majesty. Besides these there are four Canadian-bred, registered mares, the whole making a grand aggregation of big, drafty Clydesdales. Included in the last importation were three French Coach horses: Arago, bay six-year-old, was first and champion at Sherbrooke; Felatant, bay three-year-old, first at Sherbrooke; Etandard, bay three-year-old, second at Sherbrooke and champion at Chicago in December. Feiteur is a three-year-old Percheron, black, with gray mane and tail; he won first at Sherbrooke. Any of these horses are for sale at close prices, and on terms to suit. Long-distance phone connection.

Mr. S. J. Prouse, Ingersoll, Ont., writes: "I have recently sold to Murray Bros., of Embro, Ont., four imported Clydesdale fillies; two are rising three, one rising two, one rising four; she is by Sir Simon, and half-sister to Sir Marcus, the champion of America; she is in foal to Scotland's Pride, which won second at the Western Fair last fall. Those gentlemen have now fifteen mares and fillies, imported and Canadian-bred, all registered."

Mr. Stephen Nicholson, Sylvan, Ont., writes regarding the Shorthorn cattle advertised to be sold from his herd and those of H. K. Fairbairn and Fred Rawlings, on Feb. 26th: "Amongst the yearling bulls to be sold are two of the noted Aversa family, both out of imported cows bred by Mr. Marr, of Uppermill, Aberdeen. The sire of one and grandsire of the other was Luxury, one of the best bulls in Great Britain. He was used for four years by Mr. Marr, then sold to His Majesty King Edward VII. to head the noted Sandringham herd. They were sired by Spicy Count (imp.), a full brother to Spicy Clara, winner of first and champion female in Chicago in 1901. Spicy Count now heads the herd of Mr. David Birrell, Greenwood, Ont. It will be seen that no better bred bulls exist, and, as individuals, they are equal to their breeding. Signet Seal, another beautiful red yearling, was sired by Imp. Spicy Count, dam Imp. Pineapple 12th, by Challenger (701221), bred at Heatherwick, grandam Lord Ythan, bred by W. Duthie. Count Sunbeam is another, sire Spicy Count (imp.), dam Imp. Princess Sunbeam of Kinellar, by Prince Sunbeam, afterwards imported, winning first as a two-year-old and first as a three-year-old, and championship at Toronto in 1903-4. A right good one is Lynden Prince, a full brother to Queen's Ideal, champion at Chicago two years in succession, also of Fair Queen, champion female at Toronto in 1904. A full brother was sold to Watt Bros., of Salem, for \$650. Royal Hero, a pure Matchless, sire and dam bred by J. & W. Watt, is a good one. His sire was Scottish Prince; dam by Royal Wonder, a Toronto and Chicago first-prize winner. There are two good ones in Corsica and Nobility, a Campbell Clementina and a Nonpareil, both by Imp. Spicy Count. Two others are of the Vacuna family, a family that has bred as many prizewinners as any in recent years. There are four heavy-fleshed, short-legged fellows, sired by Crown Jewel 31st, he by Imp. Spicy Count; dam Leonore of Sylvan 9th, winner of second at Toronto, she by Norseman, winner of two firsts at Toronto. Half of this lot are good enough to head any herd of Shorthorns. When the sale opens, they will be entirely in the hands of the auctioneer and the public. Every bidder will be treated right. Send for catalogue to Stephen Nicholson, Sylvan, Ont."

QUESTIONS AND ANSWERS.

Veterinary.

FISTULOUS WITHERS—WORMS.

1. I treated my horse for fistulous withers last summer, and the trouble is evidently returning. Give speedy and sure cure.

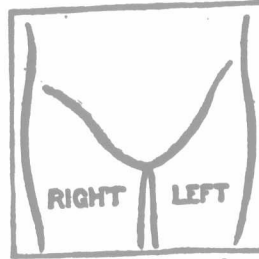
2. Gelding passed a worm twelve inches long. J. B. S.

Ans.—1. There is no speedy and sure cure for this trouble. It is probable if you had employed a veterinarian to operate last summer a cure would have resulted. The part that contains pus must be opened, and all sinuses or tubes leading to deep-seated parts must be opened to their bottoms to allow escape of all pus. If there be diseased bone or cartilage, it must be removed, and all fibrous growths cut away. Then the wounds must be dressed, twice daily, with a good antiseptic, as a five-percent. solution of carbolic acid, until healed. It requires an expert to operate properly, and it usually requires from four to eight months' treatment.

2. Take three ounces each of sulphate of iron, sulphate of copper, calomel and tartar emetic. Mix, and make into twenty-four powders. Give a powder every night and morning, and, after the last has been taken, give a purgative of eight drams aloes and two drams ginger. V.

FREE to the RUPTURED

A Quick New Cure



I have made new and important discoveries in the cure of Rupture and for the next days I will give every ruptured person who follows these directions a chance to try this remarkable Home Cure, FREE.

Mark on the diagram the location of the rupture. Answer the questions and mail this to DR. W. S. RICE, 865 Main Street, Adams, N. Y.

Age..... Time ruptured.....

Name.....

Address.....

Does rupture pain?..... Do you wear a Truss?.....



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

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

SEED CORN—Reliable seed corn that we guarantee to grow or money refunded. The largest and most comprehensive seed catalogue published in Canada; send for it; sent free to all who write for it. Globe Seed Co., Buthven, Ont.

WANTED—A few good subscription agents for The Farmer's Advocate and Home Magazine. Liberal terms. The William Wald Co., Ltd., London, Ont.

WANTED—Working horseman, capable taking entire charge stud—Clydesdales, Hackneys—caring for, fitting, exhibiting. Excellent prospects for right man. Begin forty per month; interest in fees; cottage, gas den, milk, fuel. State age, if married, children, details of experience, references to character a d ability. Teletotaler preferred. Box 2653, M. nreal.

WANTED—A married man, with small or no family, to work and manage a farm of 130 acres, on or about the 1st of April. One used to horses preferred. References required. Apply to J. R. Thompson, Box 252, Guelph.

WANTED—Situation as shepherd, having had seven years' experience on large sheep farms in the south of Scotland. Apply, Shepherd, Britton P.O., Ont.

Wanted! I want to see your hides, skins and furs soft and pliable; never get hard. Also to make and line your robes, or make your fur coats. Try me for best of satisfaction. I aim to please you. Address: B. F. BELL, Delhi, Ont.

GREENOCK'S SHORTHORN—Imp. Protector at head of herd. In p. and Canadian-bred females, Scotch and Scotch-topped. For sale: 7 bulls from 4 to 12 months of age, two of them out of Imp. dams; also some choice females. Will be sold at essay prices. Write or come and see them. J. H. McFARLANE, Dutton P.O. P. M. and M. C. Railways.

EUROPE 10 count; les. 3 0 miles coaching. For pro ramme write: F. WITHROW, B. A., Toronto.

TAIL SWEATS.

We have an eight-months-old colt; fed two quarts of oats daily, and a small turnip at noon, and seven quarts hard water three times daily, and good clover hay. It is well bedded. Its tail, within six inches of the top, is wet all the time. It is looking and thriving well.

N. J.

Ans.—If this is a mare, it is possible she does not elevate the tail when urinating. If this is not the case, the dampness must be from perspiration from the tail. I have never known a case of this kind, but have known horses to perspire over certain areas without apparent cause, and it is possible for the tail to be the seat. I would advise three quarts of oats daily, and all the water it will drink. Make a solution of corrosive sublimate (bichloride of mercury), 20 grains to a pint of water, and rub the dock well with this lotion twice daily. It, of course, must be rubbed well into the skin of the dock, and, in order to do this, the hair must be carefully parted in several places. V.

RINGWORM IN CALVES.

Would you advise me, through "The Farmer's Advocate," how to treat calves that have ringworms? I had one that died, and the rest are very bad with them.

A SUBSCRIBER.

Ans.—Softens the scale by washing well with warm soft water and soap, and remove scale with a scrubbing brush. Then apply, when dry, a mixture of lard and sulphur, with a very little coal oil. Repeat the latter in a few days. Thoroughly clean stall, and whitewash walls with limewash, with carbolic acid added.

Dispersion Sale of SHORTHORNS & CLYDESDALES

At the Farm, Hillview, on Wednesday, February 12th, 1908,

WILL BE SOLD WITHOUT RESERVE

90 head of Scotch and Scotch-topped Shorthorns of the Bruce Ma flower, Miss Ramsden, Margaret, Crimson Flower, Duchess, Louisa, Daisy and Princess strains, including the stock bull, Imp. Royal Scot 60866.



Also 4 registered Clydesdale mares and fillies, Imp. and Canadian-bred, and the Clydesdale stallion, Imp. Holstane Chief, and the Thoroughbred stallion, Hulview Wilkes 1245.

TERMS OF SALE: 7 months' on bankable paper; 5 per cent. per annum off for cash. Conveyances will meet morning trains at Pickering, Claremont and Brooklin stations. Lunch at noon. Sale held under cover if weather proves unfavorable. For catalogues apply to the proprietors.

J. E. Disney & Son, Greenwood, Ont.
Geo. Jackson, Auctioneer.

SHORTHORNS AT AUCTION

R. H. Reid & Sons, Pine River, Ont.,

WILL SELL BY AUCTION, ON

FRIDAY, FEBRUARY 14th, 1908

16 Head of Young Shorthorns:

11 Bulls and 5 Heifers, from 10 to 15 months of age,

at their farm, Clover Lea, 8 miles from Ripley station, on the Palmerston-Kinardine branch of the G. T. R., where conveyances will meet morning trains. Pure Scotch and Scotch-topped. Extra well bred, and a rare good lot.

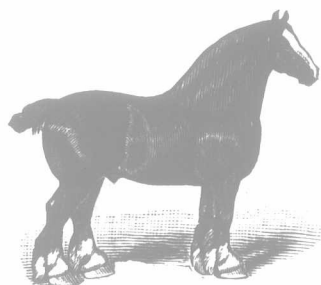
Terms: 9 months' credit on bankable paper, or 5 per cent. per annum off for cash. Lunch at noon. Catalogues on application.

J. R. PURVIS, Kinlough, } Auctioneers. **R. H. Reid & Sons,**
R. McCHARLES, Solkach, } **PINE RIVER, ONT.**

Imp. Clydesdale Fillies by Auction

At the Snodden House Stables, Peterboro, Ont., on WEDNESDAY, FEBRUARY 19, 1908.

T.H. Hassard, Millbrook, Ont.



will sell by public auction
16 IMPORTED CLYDESDALE FILLIES
from 1 to 4 years of age.

These fillies are a superior lot, up to a big size, solid colors, richly and fashionably bred, and several supposed to be in foal.

Terms: Cash, or 6 months' on bankable paper bearing 6 per cent. interest.

Sale at 1.30 p. m. sharp.

Auctioneers } **J. K. McEwen, Weston.**
} **J. H. Gardiner, Peterboro.**

Catalogues on application.

IMPORTANT AUCTION SALE of 15 yearling SHORTHORN BULLS

on Wednesday, February, 26, 1908,

At Elmdale Stock Farm, 1 1/2 miles east of the village of SYLVAN, and 5 miles south-west of the town of Parkhill, a first-class station on the G. T. R., midway between Stratford and Sarnia. Comprising the whole of E. & S. Nicholson's season bulls. The same of Mr. Fred. Rawlings and the pick of H. K. Fairbairn's, of Thedford. In the lot are four from imported sire and dams and nearly all from imp. sires. They are an extra good lot.

Teams will meet the trains the evening before and morning of the sale. They will return in time for the evening train after the sale.

TERMS: Ten months' credit.

Catalogues sent on application. Lunch at noon.

CAPT. T. E. ROBSON, Auctioneer.

R. & S. NICHOLSON.
H. K. FAIRBAIRN.
FRED. RAWLINGS.

All communications to **STEPHEN NICHOLSON, Sylvan, Ont.**

Second Annual Public Sale

at ANNANDALE STOCK FARM, on Tuesday, Feb. 25, 1908,

Commencing at 1.30 p. m.

45 Head of Select Registered HOLSTEINS

15 BROOD SOWS 15

28 of the Holsteins are females. They are good tested cows and 2 and 3 year-old heifers from great producers. Either fresh or heavy with calf to **Prince Posch Calamity**. In this sale are finely-bred heifers. From such the wonderful large producers come, such as Bontsje Q. Pietertje De Kol, that gave 20778 lbs. milk during the past year; she was sold by me to the O. A. C. You may get such another here; at least, you get your money's worth; one that will give 10,000 to 15,000 lbs. milk yearly is a big improvement. There will be 17 bulls—all but a few calves are over 10 months o'd—mostly sired by Prince Posch Calamity; one sired by the great Clyde Paul De Kol, from a 20-lb., butter-a-week dam; one sired by **Johanna De Colantha Lad**, a grandson of **Colantha 4th's Johanna**, the world-record cow. Dam an A. R. cow. The bulls are from the greatest of sires and choice dams, nearly all having A. R. records.

The fifteen brood sows, high-grade Yorkshires, are due in April and May to a pure-bred York. that will also be sold, as I have his get and another hog.

All will be sold "straight as a string." No reserve or by-bidding. Illustrated catalogue ready by 10th February. Tells all about them. Barns 100 rods from main streets. G. T. R., C. P. R. and M. C. R. close by.

A public meeting, as last year, will be held in the Opera House at night—after sale. Besides Dr. Annie Backus, Mr. Frank Hertz, Prof. Day, Mr. Schell (M. P.), and Mr. Putnam, Col. D. L. Perry, of Columbus, Ohio, who will be attending as auctioneer, will give an address full of wit and wisdom.

Terms—8 months' credit on approved notes. 6% discount for cash. New sale ring, under cover, will accommodate 1,500 or more.

Auctioneers:

MAJ. E. R. ALMAS, Norwich, Ont.; COL. D. L. PERRY, Columbus, Ohio;
MAJ. T. M. MOORE, Springfield; COL. L. G. PEARCE, Tillsonburg, Ont.

For catalogues write:

GEO. RICE, Tillsonburg, Ont., Prop.

Ontario Department of Agriculture.

Provincial Auction Sales OF PURE-BRED CATTLE

(Registered),

100 Head, Males and Females, of Beef Breeds

will be held at the following points:

GUELPH, MARCH 4;
PORT PERRY, MARCH 11, 1908.

All stock inspected before being accepted. Only good representatives of the various breeds will be offered.

Special Inducement to Purchasers in Ontario:

Freight Paid: The freight on any animals purchased at these sales by residents of Ontario shipped to purchaser's station in Ontario, will be paid by the Ontario Department of Agriculture. The original receipted freight bill containing the point of shipment and destination, name and registration number of the animal purchased and shipped, the estimated weight for billing, and the rate charged per cwt., should be sent immediately to the Live-stock Branch, Ontario Department of Agriculture, Toronto.

For catalogues and particulars regarding any of the sales, address the Secretary at the point of sale, or make application to:

Live-stock Branch, Ontario Department of Agriculture, Toronto.

Please Mention Farmer's Advocate.

Gombault's Caustic Balsam

The World's Greatest and Surest

Veterinary Remedy

HAS IMITATORS BUT NO COMPETITORS!

SAFE, SPEEDY AND POSITIVE.

Supersedes All Caustery or Firing. Invaluable as a CURE for

FOUNDER, WIND PUFFS, THRUSH, DIPHTHERIA, SKIN DISEASES, RINGBONE, PINK EYE, SWELLY, BONY TUMORS, LAMENESS FROM SPAVIN, QUARTER CRACKS, SCRATCHES, POLL EVIL, PARASITES.

REMOVES BUNCHES or BLEMISHES, SPLINTS, CAPPED HOCK, STRAINED TENDONS.

SAFE FOR ANYONE TO USE.

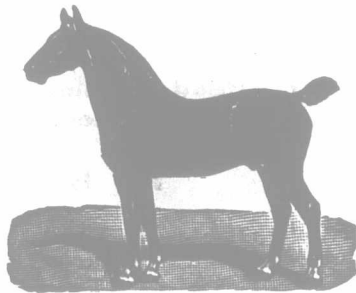
THE BEST FOR BLISTERING.

I have used GOMBAULT'S CAUSTIC BALSAM quite a good deal, and for a blister it's the best I ever used. I wish your remedy every success. **OSCAR MOTT, Manager,** Mayfield Stud Farm, Leesburg, Va.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

The Accepted Standard VETERINARY REMEDY

Always Rollable. Sure in Results.



None genuine without the signature of **The Lawrence-Williams Co.** Sole Importers & Proprietors for the U.S. & CANADA. CLEVELAND, O.

CURED CURB WITH TWO APPLICATIONS.

Have used your GOMBAULT'S CAUSTIC BALSAM to cure curb. I blistered it twice, and there is no sign of it any more. The horse is as good as ever. —**DAN SCHWAB, Evergreen, Ill.**

Sole Agents for the United States and Canada.
The Lawrence-Williams Co.
TORONTO, ONT. CLEVELAND, OHIO.

The LaFayette Stock Farm

LAFAYETTE, INDIANA.

J. Crouch & Son, Proprietors.

The Largest Importers in America of Percheron, Belgian and German Coach Stallions and Mares, and also Breeders of Trotting Stallions.

We won more prizes at all the leading fairs and expositions in 1907 than all others combined. Over 400 imported in 1907, three to five years old. Our drafters weigh from 1,800 up to 2,300 pounds.

We handle the three popular breeds of the world's horses. The States have about discarded all breeds of draft horses except the Percheron and Belgian. They are low down, blocky shaped, clean legs, cuppy foot and tough, and can go over rocky roads without shoes, are close made, long-ribbed, and live on half the feed that the leggy, short-ribbed, big Roman-nosed kind does. They mature at three years old.

As we have no branch barns in Canada, we ask all intending buyers to come to LaFayette, Indiana, where can be seen over 200 head of stallions, and we will pay one-half of all the buyers' expenses, and if they buy, we will pay all. Every horse is guaranteed to be satisfactory, sure breeders, and we can arrange it so in case the horse dies within a year we will furnish another horse in his place, of equal value. Prices run from \$700 up to \$2,200. Long time to responsible buyers, and all horses delivered to buyers. Can show more good horses than any importer in America.

Shires, Shorthorns and Lincolns.

At present we are offering a very choice consignment of imported stallions, mares and fillies received from the great Shire stud of R. Moore & Sons, Beeston Fields, Nottingham, England. They are a grand lot, and will be sold at right prices.

In Shorthorns we have a number of choice young bulls, three of them show animals; also an excellent lot of females—all ages.

John Gardhouse & Sons, Highfield, Ont.
Toronto, 14 miles. Weston, 3½ miles.



Long-distance phone.

When Writing Advertisers
Please Mention this Paper.

GOSSIP.

Messrs. Geo. Amos & Son, Moffat, Ont., write: "Our herd of Shorthorns is doing well in its winter quarters. We have a nice bunch of young calves coming up. We wish to report the following recent sales: To D. R. Hanna, Ravenna, Ohio, the noted daughter of Imp. Old Lancaster 50068, Flora 90th, grand champion female at Toronto in 1907, who has only suffered one defeat on the continent, that being at the International, Chicago, in December, by Mr. Clark's heifer, Alice of Meadow, which Mr. Hanna has had the misfortune to lose quite recently. Flora 90th is intended to be a strong contestant in American show-rings in the coming season. To R. G. Reid, Freeilton, Ont., the imported cow, Mina, by British Prince, and heifer calf, by Scottish Signet, one of the best sons of Imp. Old Lancaster. To J. & N. McPherson, Wanstead, Ont., Lancaster Victor, by Old Lancaster (imp.), and out of Imp. Mabel of Knowhead, by Prince Victor. This cow is half-sister to the noted show heifer, Cicely, who was dam of Scotch Goods, Mr. Bowen's grand champion bull at Chicago, 1907. Lancaster Victor was the second-prize senior bull calf at Toronto and first at Sherbrooke last fall. The same gentleman also takes the Mysie heifer, Mysie Lady, a good daughter of Imp. Old Lancaster. To Nasmith Bros., Galt, Ont., the bull, Killblean Ripple, by Imp. Old Lancaster, and Meadow Beauty 3rd (imp.), a cow of the famous Killblean Beauty family. To Chas. Glasgow, Fingal, Ont., Augusta's Lad, by Imp. Old Lancaster, and Imp. Augusta's Girl, by Princely Archer. To Alex. McPhedran, Nassagaweya, Ont., the cow, Minnie Halton 2nd. Have still for sale one extra good young bull in Bud's Emblem, by Imp. Old Lancaster, and out of a richly-bred Campbell Rosebud cow. This bull was winner of second place in senior yearling class at Toronto and Sherbrooke, also winner of fourth place at Chicago last month in strong competition. This should be a profitable investment for anyone looking for a high-class herd bull."

GREENOCK SHORTHORNS, CLYDESDALES, OXFORD DOWN SHEEP AND BERKSHIRES.

John McFarlane, of Dutton, Ont., the veteran breeder of Shorthorn cattle, Clydesdale horses, Oxford Down sheep and Berkshire swine, is exceedingly tidy and systematic in all his farm operations. Genial, ever wearing a bland smile, and choke-full of genuine Scotch wit and humor, an hour spent in his company is well spent and long remembered. He is a man thoroughly convinced, after many years of experience, that pure-bred stock is much more easily fed than scrubs, and the cost of producing such stock ready for the block is very much less. Acting up to the spirit of his convictions, everything in the stock line found on his splendid farm, Greenock, is pure-bred and registered, or eligible for registration. His Shorthorn herd now numbers some thirty head, Scotch and Scotch-topped, six of the breeding females being imported, a number of the others having imported sire and dam. None but the best imported bulls have been used on the herd, which, to-day, is one of the best in Western Ontario. The present stock bull is Imp. Protector, Vol. 52 (E. H. B.). Other bulls represented in the herd by their get are: Prince of Archers, Morello, Nonpareil Archer and Royal Prince. A number of the cows have calves at foot, by the present stock bull. Anything or everything in the herd is for sale, and will be priced right, including seven young bulls, from four to twelve months of age; beef and dairy-bred on their dam's side, and a buyer can pretty nearly get what he is wanting among them. In Clydesdales, besides the Canadian-bred ones, are three imported mares, all in foal to Imp. Leamside, winner of first prize at Toronto in a class of eighteen. They, too, are for sale. The Oxford Down flock of sheep are strictly up-to-date in type and covering; also the Berkshires. Nothing is reserved, as Mr. McFarlane is not breeding for amusement. A visit to the farm will amply repay intending purchasers, and they need not be alarmed if it is near the meal hour.

FATHER'S ECZEMA AFFLICTED CHILDREN

Mr. Chas. Noble, of 375 Colonial Avenue, Montreal, the assistant chief operator of the G. N. W. Telegraph Co., and several of his family have been cured of eczema by Zam-Buk, the great herbal balm. He states the facts as follows: "The disease started in the back of my hands in the form of small sores and eruptions. These were very irritating, and when rubbed and scratched turned into very painful sores. I tried waters, lotions and salves, but the disease continued to spread, and so I consulted a doctor. He treated me for a time, but still the disease spread, and I got no relief. Then, to my alarm, the eczema spread to several of the children. The pain and irritation in all our cases was very great, and we were very much disheartened, as all we tried proved unavailing. Zam-Buk was recommended, and I obtained a supply. I tried it first on a small patch of the eczema, and this showed so much improvement that I was convinced Zam-Buk would do good if persevered with, and, therefore, obtained a supply. Each application greatly relieved the itching, pain and soreness, and it was not long before the eruptions and sores dried up and disappeared. In a few weeks from commencing with Zam-Buk every spot was removed. "The children, who had also taken this disease, were treated in the same way, and have each been cured. Unlike all other preparations used, Zam-Buk seemed to search to the roots of the evil, and it was really surprising how quickly the sores were healed. In my case, and that of my children, the cure was most effectual and permanent, as it is now some months since we were cured, and there has been no sign of any eruptions or sores returning."

Of all druggists and stores, 50c. a box, or postpaid from the Zam-Buk Co., Toronto. No home should be without Zam-Buk.

Ring-Bone

There is no case so old or bad that we will not guarantee

Fleming's Spavin and Ringbone Paste to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of

Fleming's Vest-Pocket Veterinary Adviser Ninety-six pages of veterinary information with special attention to the treatment of blemishes. Durable bound, indexed and illustrated. Make a right beginning by sending for this book.

FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario

Kendall's Spavin Cure

PORTAGE RIVER, N.B., March 5 '06. "I am using your Spavin Cure and can say there is nothing to be compared with it." **Gilbert Muzerall.**



1 a bottle—6 for \$5. Our great book—"Treatise on the Horse"—free from dealers or

Dr. R. J. KENDALL CO., Essexburg Falls, Vermont, U.S.A.

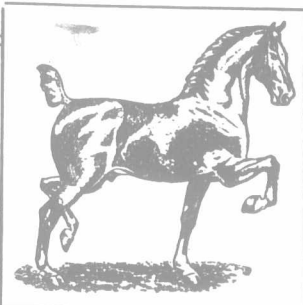
Liquor and Tobacco Habits

A. McTAGGART, M.D., C.M., 75 Yonge St., Toronto, Canada.

References as to Dr. McTaggart's professional standing and personal integrity permitted by: **Sir W. B. Meredith, Chief Justice.** **Hon. G. W. Ross, ex-premier of Ontario.** **Rev. N. Burwash, D.D., Pres. Victoria College.** **Rev. Father Tsefy, President of St. Michael's College, Toronto.** **Right Rev. A. Sweatman, Bishop of Toronto.** **Rev. Wm. McLaren, D.D., Principal Knox College, Toronto.** **Dr. McTaggart's vegetable remedies for the liquor and tobacco habits are healthful, safe, inexpensive home treatments. No hypodermic injections, no publicity, no loss of time from business, and a certainty of cure. Consultation or correspondence invited.**

THE UNION STOCK-YARDS COMPANY, Ltd.
HORSE EXCHANGE
KEELE ST., - - TORONTO JUNCTION

Auction Sales of
Horses, Carriages and
Harness every
Monday and Wednesday.
Private Sales every
day.



Come and see this new
Horse Exchange,
it will interest you, also
the Quarter-mile Track
for showing
and exercising

The Directors of the above Company have not spared anything in the building of this new Horse Exchange. The stables, which are built of cement and brick, will stall between 200 and 300 head of horses and are considered by judges, who have seen them, to be the most sanitary they have yet seen.

We have sold on an average of 100 horses per week since the opening of this great horse market, and now that the success of the horse business is assured, we are in a position to handle **Breeders' Stock Sales of all kinds, Cattle, Sheep, and Hogs.**

Breeders will find that advertising from a central place like Toronto will be advantageous in many ways, as this is unquestionably the most complete market of its kind in America for both buyer and seller.

We have our own railway chutes, which are the finest, and can load any number of cars at once on both G.T.R. and C.P.R. No charge for loading or unloading stock of any kind.

Correspondence solicited as to terms, etc.

HERBERT SMITH, Manager.
(Late Grand's Repository).



CLYDESDALE STALLIONS

Our new importation has just landed. An exceedingly good lot. Some extra big fellows. They may be seen at our stables, Fraser House, London. Call and see them, or write

MESSRS. DALGETY BROS., GLENCOE, ONT.



Graham - Renfrew Co.'s
CLYDESDALES and HACKNEYS.

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

GRAHAM-RENFREW CO., LTD., Bedford Park, Ont.



CLYDESDALES

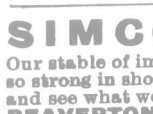
At Columbus, Ont., the home of the winners, this year's importation just arrived. The pick of Scotland's best. For size, style, conformation, quality and royal breeding, they eclipse any former importation we ever made. Look them up in our barn on Exhibition Grounds. Over 30 head to select from.

SMITH & RICHARDSON, COLUMBUS, ONTARIO.



Imp. Clydesdales (Stallions and Fillies), Hackneys, Welsh Ponies.

I have now on hand Clydesdale stallions and fillies—Scotland prizewinners and champions; Hackney fillies and Hackney pony; also Welsh ponies. There are no better animals, nor no better bred ones, than I can show. Will be sold cheap and on favorable terms. **A. AITCHISON, GUELPH P. O. AND STATION.**



SIMCOE LODGE CLYDESDALES

Our stable of imported and Canadian-bred Clydesdale stallions and fillies was never so strong in show stuff as now, although we have had some very strong lots. Call and see what we have before buying elsewhere. **HOCKKINSON & TISDALE, BEAVERTON, ONT., G. T. & C. N. R.** Long-distance phone.



IMPORTED CLYDESDALES!

9 stallions, 1 to 6 years of age; 10 fillies, 1 to 3 years of age, several of them in foal; 1 two-year-old Hackney stallion; 1 two-year-old Shire stallion; 3 Percheron stallions, 3 years old. All are selected animals, bred in the purple. Will be sold cheap and on terms to suit. **T. D. ELLIOTT, BOLTON, ONT.** Phone.



DUNROBIN Clydesdales, Shorthorns, Yorkshires STOCK FARM.

Now is the time to invest in a good Clydesdale Mare or Filly. Two good stallions for sale. Price right. Large selection.



25 Imported Clydesdale Stallions and Fillies 25

Two Clyde stallions, 1 Hackney stallion, over 20 Clyde mares and fillies, from 1 to 5 years of age. Many high class show animals among this lot. Many winners in Scotland among them. They have size, quality, style, action and breeding. Come and see them. **GEO. A. BRODIE, Bethesda P. O., Steuville and Gormley Stations**



IMP. CLYDESDALE STALLIONS AND FILLIES.

Our new importation of stallions and fillies are the best we could select in Scotland, particularly well bred, with the size, smoothness and quality that Canadians admire. Show-ring stuff. Come and see them. Will sell on terms to suit. **JOHN A. BOAG & SON, Queensville P. O., Ont., Newmarket Sta., G. T. R.** Telegraph and telephone one-half mile from farm. Metropolitan Street Ry. from Toronto crosses the farm.



IMPORTED CLYDESDALES

Up to over a ton in weight, with the very richest of breeding and the best of quality. I think no better shipment of stallions ever left Scotland. I have also nine fillies, without doubt the best lot in Canada. All will be sold cheap and on terms to suit. Long-distance phone. **GEO. G. STEWART, HOWICK, QUE.**



Clydesdale Stallions!

ROBT. HUNTER & SON, Maxville, Ont., are now offering that grand quality horse, Baron Colin, imp. [4542], by Baron's Pride, dam by Flashwood's Best, four years old; also Kyama, Canadian-bred, rising two, imp. sire and dam, a big, grand, good colt, a show animal. Long-distance phone.

GOSSIP.

The Shorthorn steer, Gentleman John, age two years eight months and three weeks, grand champion of the 1907 Smithfield Fat-stock Show, was slaughtered by Mr. John Pettit, of Grimsby, England, who reports as follows: His live weight was 1,835 lbs.; average daily gain of live weight, 1.84 lbs.; weight of dressed carcass, 1,176 lbs.; percentage of carcass to gross live weight, 64.08. Mr. Pettit writes: "It was a beautiful carcass of beef, all quality, the fat and lean beautifully mingled, very small-boned and every ounce salable meat, set very firm and splendid-keeping meat. I have been a very large buyer of show beasts, but I never saw or cut a better in my life, which was also the opinion of all the butchers in the district."

The cheap stallion is dear at any price—just as is a counterfeit of any kind. The best is none too good, and it is only by using the best obtainable breeding material that the highest quality of horses can be produced, writes Dr. A. S. Alexander, of Wisconsin Agricultural College. The farmer does not buy seed corn or oats or barley or wheat just because it is cheap, nor does he go from seller to seller looking for the seed he can buy the cheapest. When it comes to selecting a stallion, however, all of this sensible business policy seems to be forgotten, for the mare owner too often neglects the offered opportunity to patronize the pure-bred stallion, and for the sake of saving a few dollars at the time of breeding, uses a stallion of impure blood and nondescript type and character, and the scrub colt, which costs as much to raise as does a good one, is rarely salable at more than one-half as much money as the progeny of a good pure-bred stallion.

LAST CALL FOR DISNEY & SON'S SALE.

Last week we gave a short synopsis of the excellent breeding of the thirty head of Shorthorns to be sold at the dispersion sale of J. E. Disney & Son, Greenwood, Ont., on Wednesday, Feb. 12th, next. At the present time, when so much is being heard about dairy-bred Shorthorns, this sale will offer a rare opportunity to purchase exceptionally choice representatives of heavy and persistent milkers, as well as choice and richly-bred straight Scotch animals, including the red four-year-old imported bull, Royal Scott. Parties wishing to purchase something good in bulls, cows or heifers should make a point of attending this sale, as they will not be disappointed in the class of stuff to be offered. The Clydesdales to be sold are of an equally high standard. Holstane Chief (imp.) [4254] is a bay seven-year-old, by Robin Oig, by Macgregor. Holstane Chief has proven himself a sire of worth, as his get to be sold will prove. Imp. Viola [7717] is a brown mare, four years old, by Boy in Blue (5578), by Top Gallant. This mare is a right good sort, with great size, smoothness and abundance of quality. Out of her is a rare good filly foal, by the above stallion, weighing 800 lbs. at eight months old, the making of a show animal. Balsam Bess [10742] is a bay yearling, by Holstane Chief, dam Straven Jess [6960], by Imp. Straven Gallant, a big good kind of filly. Nellie of Hillsview [10131] is another bay yearling, by same sire; dam Lucy, by Imp. Brown James. Brookview Maid [14513] is a bay two-year-old, by same sire; dam by Imp. Linkwood Lad; the whole making an exceptionally choice offering. Also, there will be sold the Thoroughbred stallion, Hillsview Wilkes 1245, by Mikado Jr., by Mikado (imp.); dam by Grit Wilkes. He is a brown two-year-old; has been shown three times, and won three firsts and one championship. He has two full brothers that have both won first prize at Toronto, and he is as good a horse as either of them. Conveyances will be at Claremont (C. P. R.) and Pickering and Brooklin (G. T. R.) on morning of sale. The sale will be held under cover if the weather is not fine. The terms are liberal: seven months' credit on bankable paper, or 5% per annum off for cash. Catalogues can be had for the asking by addressing Mr. Disney, to Greenwood P. O., Ont.

OAKLAWN FARM
HEADQUARTERS FOR
PERCHERONS
BELGIANS
FRENCH COACHES

POINTERS FOR BUYERS

Our sales last six months nearly twice those of any similar period in our history. Animals purchased here and shown by their then owners won more championships and first prizes than all purchased elsewhere and similarly shown. Constant importations. Next one due February 5, 1908. Best animals, lowest prices, safest guarantee, 42 years of honorable business methods. Write immediately to

DUNHAM & FLETCHER,
Wayne, Du Page County, Illinois.

Free Veterinary Book

Be your own horse doctor. Book enables you to cure all the common ailments, curb, splint, spavin, lameness, etc. Prepared by the makers of

Tuttle's Elixir



The world's greatest horse remedy. \$100 reward for failure to cure above diseases where cure is possible. Write for the book. Postage 2c. **TUTTLE'S ELIXIR CO., 66 Beverly St., Boston, Mass.** Montreal: H. A. Tuttle, Mgr., 32 St. Gabriel St. Beware of all imitations; only temporary relief, if any. **C. H. R. Crocker, South Farmington, Nova Scotia.**

HORSE-BREEDERS NOTICE!

Now is the time to treat your brood mares, do not wait till the foal is dead; treat your mare by using **Wilhelm's Brood Mare Special**; it guarantees a good, strong, healthy foal. If your dealer does not keep it, send direct to us. It has been used successfully seven years. Price, \$1.50 per package.

WILHELM & MOORE, SHAKESPEARE, ONT.

J. WILHELM, V. S., G. A. MOORE,
Specialist on Generation. Manager.

SHOE BOILS

Are Hard to Cure, yet

ABSORBINE

will remove them and leave no blemish. Does not blister or remove the hair. Cures any puff or swelling. Horse can be worked \$2.00 per bottle, delivered. **Book 5-C Free.** **ABSORBINE, JR.** For manking, \$1.00 per bottle. Cures Boils, Bruises, Old Sores, Swellings, Varicose Veins, Variocele, Hydrocele. Always Pain **6-6-YOUNG, P.O.-F., 73 Monmouth St., Springfield, Mass.** Canadian Agents: **LEMAN BROS. & CO., Montreal.**

High-class Driving Ponies

AND DORSET SHEEP.

For sale: Pair matched bay and white ponies 2 years old; piebald gelding, 2 years old; black Shetland mare (imp.), 5 years old (bred); and others of various ages. Also a few young Dorset ewes in lamb. Apply to:

E. DYMENT, COPETOWN, ONT.
Gilead's Spring Farm. Wentworth Co., Ont.

FOR SALE, or EXCHANGE for a PERCHERON

Good registered **OLYDESDALE** stallion, 5 years old; kind, sound and sure; an A1 stock horse; selling for no fault; had him since a colt. Reason: A number of my customers would like to try a Percheron.

J. C. ANDERSON, Morganston, Ontario.

MONEY IN CANARIES

More profitable than poultry. Experience unnecessary. We give advice free. Our new sec book, "Money in Canaries," tells all about it. With book we send free, if you name this paper, a sec packet **BIRD BREAD**. Also, "How to Raise Birds of Lice," and "Bird Magazine." Send sec to-day; stamps or coin. Refunded if you buy birds from us. Birds shipped anywhere any time. Write us before buying. Address:

COTTAM BIRD SEED
28 Rathurst St., London, Ont.

SUBSCRIBE FOR "THE FARMER'S ADVOCATE AND HOME MAGAZINE."

INTERNATIONAL STOCK FOOD COSTS ONLY



This Beautiful Picture
in 6 Brilliant Colors
Mailed to You FREE

A Marvelous Picture of 2 World Champions
Dan Patch, 1.55, The Facing King
Cresceus 2.024, The Trotting King

We have large colored lithographs of our World Famous Champion Stallions, Dan Patch 1.55 and Cresceus 2.024, in an exciting speed contest. It is 16 by 21 in. and shows both horses as life-like as if you saw them racing. You can have one of these Large and Beautiful Colored Pictures of the Two Most Valuable Harness Horse Stallions and Champions of the World, Absolutely Free. We Prepay Postage. This cut is a reduced engraving of the large Colored Lithograph we will send you free.

WRITE AT ONCE

1st, Name the Paper in which you saw this offer.
2nd, State how much live stock you own.

International Stock Food Co.
TORONTO, CANADA

3 FEEDS FOR ONE CENT

NOTHING BUT THE BEST

New importation of Clydesdales and Hackney Stallions. For sale more Old Country Premium and H. and A. Society winners than any other importer. Such horses as Aome, Marquis Marquis, Rosette, Ardethan Goldsmith, King's Seal, Baron's Charm, Baron's Carriok, Abbey Fashion, Medallion and many others equally good. Thirty six in all. Prices reasonable.

OSWALD SORBY, GUELPH P. O., ONT.

Clydesdales, Shorthorns and Cotswolds—For richest bred and choicest individuals of above breeds, write me. My new Cotswold and Clydesdale importation will arrive early in the season.

J. C. ROSS, Jarvis P. O. & Sta.

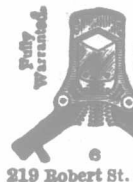


The "STAY THERE"

Aluminum Ear Markers

are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalogue and prices mailed free.

Ask for them. Address
WILCOX & HARVEY MFG. CO.,
104 Lake St., Chicago, Ill.



DEHORN YOUR CATTLE

Wonderful how it improves them. Heifers develop into better milkers. Steers fatten quicker.

KEYSTONE DEHORNER

does it. Cuts clean—hurts little—does not bruise flesh or crush bone. Write for free booklet.

R. H. MCKENNA,
Late of Picton, Ont.

Brown Swiss Cattle

FRENCH-CANADIAN HORSES.

We are offering for sale cattle of both sexes and almost any age; the greatest dual-purpose breed alive. Horses of all ages. Stallions, mares and fillies. The best stud in Quebec. Write us for prices. We represent exactly as the animal is.

C. E. STANDISH, Ayer's Cliff P. O.,
Tresbarthe Farm, Quebec.

W. R. Bowman

MT. FOREST, ONT.,

Is offering Durham bulls and heifers 6 mos. to 15 mos.—reds and roans—sired by Newton Prince (imp.) and Cronje (imp.), for \$50 to \$75. Also heifers in calf, \$75 each. Shropshire ewes, choice ones, at \$25 to \$30 per pair, bred to our Chicago winner, Prolific (imp.). Ram and ewe lambs, \$30 per pair.



Sunnyside Herefords

Present offering: Twenty good breeding cows, yearling heifers, good sappy heifer calves; also some very promising bull calves, the get of Onward and Protektor 2nd. In car lots or singly. Come and see them, or write and state what you want. Satisfaction guaranteed. ARTHUR F. O'NEIL, Maple Grove, Ont., Middlesex Co.

Herefords

We have some choice females for sale—all ages—of the right sort; also a few young bulls fit for service. Correspond with us. We can please you. J. A. LOYERING, Coldwater P. O. and Station.

ELM PARK POLLED ANGUS—8 years won the herd prizes at Toronto, the male and female championships, and prizes with winning at leading exhibitions. For sale are females and bulls, all ages—nearly all winners. Also Suffolk Down sheep. JAMES BOWMAN, Guelph, Ont.

ABERDEEN - ANGUS

For sale 50 head to pick from, males or females by imported sire. Drumbo station.

WALTER HALL, Washington, Ontario.

Come and see the most select lot of

Clydesdale and Hackney

STALLIONS AND MARES

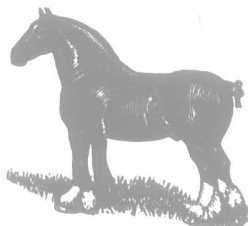
Two to Six Years Old

These horses combine size, weight and quality. All of which are for sale at reasonable prices. Send for illustrated catalogue.

Graham Bros.,
CLAREMONT, ONTARIO.

JOHN CHAMBERS & SONS

Holdenby, Northampton, England,



Have at their American branch, at St. Thomas, Ont., under the management of C. K. Geary, a number of good big stallions, also several very fine fillies coming three years old, and safe in foal to some of England's leading sires. Address all communications to:

C. K. Geary, St. Thomas, Ont.

OAK PARK STOCK FARM HACKNEYS!

Four imported and home-bred stallions for sale. Ten imported and home-bred mares for sale. Among these are prizewinners at Toronto, Chicago and New York. Prices reasonable. Visitors always welcome to inspect stock. T. A. COX, Manager, BRANTFORD, CAN.

QUESTIONS AND ANSWERS. Miscellaneous.

CROPS FOR SANDY LAND— WEIGHT OF FAT IN CREAM.

1. I have three hundred and fifty acres of land, seventy acres are yellow, sandy loam, which I plowed this fall. It has been in pasture eight years. Could you kindly tell me what crop would be best to put in it? The other lots are of gravelly soil. I would be so glad to know what would be best to plant in them. I am running a dairy farm, and have fifty-four head of cattle. I bought the place last March, and I have not had a good crop this year. I planted corn and oats on the gravelly soil?

2. Down on the flats there are three springs, and out of one of them comes some kind of oil and a dirty-looking yellow substance. Could you kindly tell me what you think it would be?

3. I sent 933 lbs. of cream to the creamery that tested 32 per cent., and all the butter-fat credited to me was 299 lbs. Do you think that was the right quantity? E. F. G.

Ans.—1. In sandy or gravelly soil, carrots or turnips will do better than mangels, as mangels like strong clay. Corn suits almost any kind of soil, and should do well with you. Try barley on a part of your place, as it might possibly be more suitable than oats. Clover thrives well and is especially valuable on sandy land as a restorer of fertility. Possibly your soil may be lacking in fertility, and if such is the case we can recommend nothing better than frequent seedings with clover, which will be much more luxuriant, if occasionally treated with light dressings of wood ashes. If subsoil on the gravelly part is very dry, you might experiment with alfalfa, the roots of which run down to great depths. Procure from the Bacteriologist, O. A. C., Guelph, to sow with the seed, some nitro-culture with full instructions free. Buckwheat would, in all likelihood, be a profitable crop to grow, but for a dairy farm might not be wanted.

2. The water before reaching the surface probably flows over or through a bed of ore. Examination would be necessary to arrive at a conclusion.

3. Yes, exactly.

EMMER FOR SANDY LAND.

I note in Dec. 19th issue of your valuable paper, Prof. C. A. Zavitz's report of experiments with the different grain crops. Common emmer did remarkably well. My farm is mostly sand of good quality and rolling, and, therefore, not well adapted for oats or barley. I have tried the Daubeny oats mixed with barley, last year, which yielded 20 bushels per acre. I had four acres.

1. Will the common emmer give better results on sandy land than oats or barley?

2. Is it good to mix with peas as a mixed crop?

3. How is the straw as compared with other straw, such as oat, barley or wheat straw, in feeding value?

4. Where could I get seed, and about what price per bushel?

Believing your valuable paper ought to have a place in every farmer's home in Canada. SUBSCRIBER.

Ans.—1. Common emmer is grown largely in Switzerland and in some of the other European countries, on comparatively poor soils, where spring wheats and some of the other grains do not prove successful. It is quite probable that emmer may give rather better results on certain sandy lands of Ontario, where even oats and barley do not thrive very well.

2. I would not strongly favor the mixing of emmer and peas for the purpose of sowing, but a mixture of these two grains, when ground together, should furnish meal of good quality.

3. The straw of emmer is exceedingly free from rust, and it is of good quality. I think it is probably a little superior to the straw of either barley or ordinary wheat for feeding purposes.

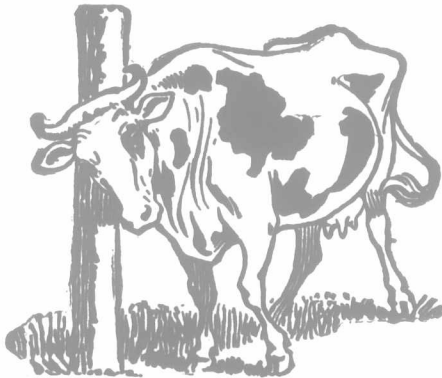
4. Emmer is now quite easily obtained in Ontario, either from the seedsmen or from different farmers who are growing the crop. It is yet a little early to know the quotations for the coming spring, but good seed can usually be obtained at quite moderate prices, ranging about the same as those for oats and barley. C. A. ZAVITZ.

O. A. C.

BLATCHFORD'S CALF MEAL

Our BOOKLET plainly tells the story of Blatchford's Calf Meal, with convincing testimonials from some of the 20,000 progressive farmers who have had excellent success with this perfect milk substitute. It costs about half as much as milk. It prevents scouring. It is the oldest and best. It is free from mill feed. It is cooked. The Booklet is FREE. Write for it.

J. A. Simmers, Toronto, Ont.
Taylor Bros., Ltd., Carleton Place, Ont.
J. H. Byers, Stratford, Ont.



The Louse Question

When your animals rub incessantly at this season of the year, look out for lice. This is especially true of calves and colts. To meet this condition Dr. Hess (M.D., D.V.S.) formulated the famous Instant Louse Killer, which kills lice on stock and poultry.

INSTANT LOUSE KILLER

(Powder or Liquid)

Kills ticks on sheep. It being a powder, can be applied in zero weather. Do not wait for warm weather; do not let the tick eat up your profits—kill him on the spot with Instant Louse Killer. Put up in round cans with perforated top, full pound 35 cts. Sold on a positive written guarantee. Be sure of the word "Instant" on the can; there are 25 imitations.

1 lb. 35 cents
3 lbs. 85 cents

If your dealer cannot supply you send your order to us.

Manufactured by
DR. HESS & CLARK
ASHLAND, OHIO, U. S. A.

Shorthorns—Sweepstakes herd at London, Ayrshire, Wallacestown, Rodney, Ridge-town and Highgate, 1907. We have for sale at reasonable prices 3 choice young bulls, 1 red and 2 roans, of grand type and quality. All sired by the good breeding bull, Ridge-wood Marquis—4895—, a son of the old champ on, Spicy Marquis. Also a few young cows and heifers. JNO.



LEE & SONS, Highgate, Ont.

T. DOUGLAS & SONS STRATHROY, ONT.

Breeders of Short horns and Clydesdales. 15 bulls, 60 cows and heifers, 1 imp. stallion, imp. and home-bred sires. Write us what you want or come and see our stock. Farm 1 miles north of town.

SHORTHORNS

For want of stable room will sell cheap 10 heifer calves, 19 yearling heifers, 4 two-year-old heifers in calf and 3 red bulls about 14 months old. Right good ones. **OLYDESDALES.**—Two-year-old mare in foal, and a good pair 4 and 5 years old. Write, or come and see them.

JAMES McARTHUR, GOBLE, ONTARIO.

SPRING VALLEY SHORT HORNS

Two young imported bulls of the very best quality and breeding. Six Canadian-bred bulls, mostly the get of Bapton Chancellor (imp.). Prices right.

KYLE BROS., AYR, ONTARIO.

SHORTHORNS FOR SALE—Four choice bulls, all from imp. sire; two from imp. dams. F males of all ages. Scotland's Fame (imp.) at head of herd for sale or exchange. **ALEX. BURNS,** Rockwood P.O. and G.T.R. Station

QUESTIONS AND ANSWERS. Miscellaneous.

SWELLING AROUND HEIFER'S EYE.

I have a heifer, coming two years old, that has a soft, pulpy swelling around the left eye, and from that up to the root of the ear. I cauterized her horns when she was about a week old. Some time after this, the swelling started around the horn, but did not extend any further until last summer, when it gradually extended down towards the eye, and left very little swelling around the horn; but what little horn there is, is loose. I had a veterinarian examine her. He put his knife into it to the bone, but there was nothing came out. He thinks it was the cauterizing that caused it. What do you think was the cause, and what treatment would you advise?

A. S.

Ans.—It is possibly the result of the caustic in the dehorning process being allowed to run down upon the skin. A veterinarian making a personal examination is in a better position to arrive at a correct diagnosis than anyone reading a description, and is also in a better position to advise or prescribe as to treatment. The case is uncommon.

UNTHRIFTY PIGS.

1. Please inform me what caused pigs, bred from a pair of young Berkshires purchased from a breeder as pure-breds, to grow so poorly, as they were well fed, and at eight months old weighing about 120 to 130 lbs. each.

2. Do you think the next litter will do better?

3. Do you consider Chester White a better breed? A. H.

Ans.—1. Possibly the sow was bred to farrow at too young an age and had not sufficient milk to give the pigs a good start. The parents may be of too small and short type to produce growthy stock. The lengthy, strong-boned class of Berkshires make rapid growth, and weigh well at any age. Pigs of any breed, if kept confined and deprived of exercise and heavily fed with rich food, will get fat without growing much, and, owing to accumulation of fat about the heart and lungs, are liable to get wheezy, and cease to thrive and grow.

2. If sow is allowed to run out freely for exercise while carrying next litter, and the pigs also get plenty of exercise, they may do well.

3. No.

SORGHUM.

Could you give me any information through your paper on growing sorghum, and its value for cattle? Would it be adapted for this district?

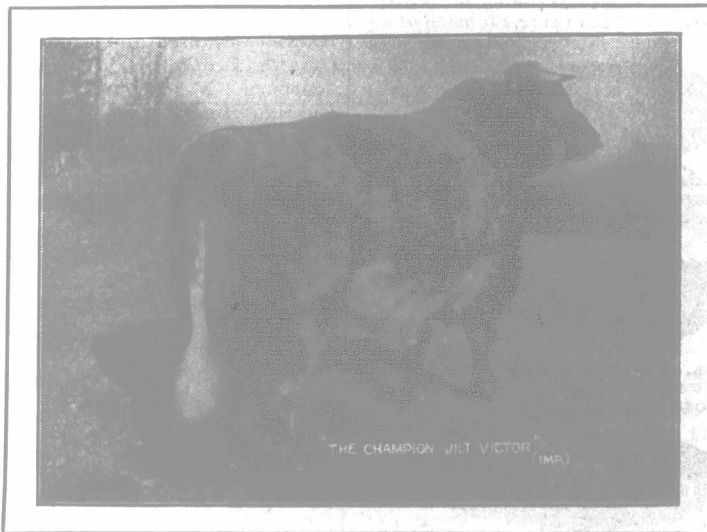
SUBSCRIBER.

Middlesex County, Ont.

Ans.—Sorghum is considered a valuable pasture for cattle, sheep, swine and horses which are not working. It is especially valuable in midsummer and early fall, when other pastures are light, and is much used in some parts for soiling. When once established, it is very satisfactory, as it grows up readily after being eaten down; but it is sometimes slow in making a start, especially in moist, cool weather. It does best during hot weather, and is well able to withstand drought. Sorghum should be given the same place in the rotation as corn. It prefers a moist, sandy loam over a porous clay subsoil. The soil should be thoroughly worked up and pulverized before sowing, and fertilized as for corn. If sown with the drill, about three pecks per acre will be required. Some sow sorghum in rows, and cultivate exactly as they would corn; others sow like other grain, and give no cultivation other than a light harrowing when the first blades appear, and again when the plants are from five to seven inches in height. When harrowing, it is necessary to have the teeth placed, as far as possible, at a backward slant. Sorghum should never be sown until the weather is warm and settled; nor should stock be permitted to graze upon it until the plants have become established and are several inches high. Care should be exercised when stock are first put on it, as otherwise there may be danger of bloating.

Salem Herd of Shorthorns

J. A. WATT, SALEM P. O.



THE CHAMPION JILT VICTOR (IMP.)

I will take a very limited number of high-class cows for service to Jilt Victor. I can supply any number of Shorthorns of either sex, or willingly help buyers in making selections elsewhere.

Elora Stns., G. T. R. and C. P. R., 13 miles north of Guelph. Long-distance phone.

1864 Maple Lodge Stock Farm 1907

An exceptionally choice lot of heifers and young bulls for sale now. Best milking strains.

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

Valley Home Shorthorns AND BERKSHIRES.

Our herd numbers sixty-five head. We are prepared to give bargains to suit all who wish to buy from one animal up to a carload of females, and 19 bulls from 9 to 18 months old. Also 55 Berkshires of prolific strains.

S. J. PEARSON, SON & CO., Meadowdale, Ont. Stations: Meadowdale, C.P.R.; Brampton, G.T.R.

10 IMPORTED 10 BULLS

Recently arrived from Scotland in good condition. They are a superior lot. Selected for herd-headers. We also have a number of Canadian-bred bulls of excellent quality, and representing the choicest breeding. Females suitable for show or breeding purposes.

W. G. PETTIT & SONS, FREEMAN, ONTARIO.

Burlington Jct. Sta., G. T. R. Bell telephone at each farm.

WATLAND BANK SCOTCH SHORTHORNS!

7 bulls, superior breeding, 11 to 15 months; 5 high-class bull calves 5 to 8 months; and a number of cows and heifers and heifer calves; at half prices formerly asked. **DAVID MILNE,** Ethel, Ont.

MAPLE GROVE SHORTHORNS

Scotch and dairy bred; up-to-date in type; prize-winners at the local shows. A number of 1 and 2 year old heifers 1 year old bull, and one 5 mos. old—the last will make a show bull. **Flora bred—will be sold easy.** **L. S. POWELL,** Wallaceston P. O. and Stn. G. P. R.

Six Thick, Thrifty Shorthorn Bull Calves JUST HOME FROM SCOTLAND.

They are ready to use, and I am going to sell them. Will change for your old imported bulls if good. Will also sell imported cows and heifers and home-bred bulls; also some good Shropshire and Cotswold ewes, bred to great imported sires.

ROBERT MILLER, STOUFFVILLE, ONTARIO, CANADA.

PLEASANT VALLEY SHORTHORNS

For sale: 3 young bulls by Old Lancaster Imp. from imp. dams, including Lancaster Victor, first prize sr. bull calf at Dom at Sherbrooke, second at C. N. E. Toronto. Correspondence solicited. Inspection invited. **Geo. Amos & Son, Moffat Stn. & P.O. C. P. R. Farm 11 miles east of City of Guelph.**

Queenston Heights SHORTHORNS

All Scotch. The thick-fleshed, early-maturing sort. Special prices on young stock either sex. Ask for catalogue with sample pedigrees.

Hudson Usher, Queenston, Ont. Farm three miles north of Niagara Falls.

Winners at the leading shows have been sired by bulls bred here. We can sell you a good bull to head your herd of SHORTHORNS, or for use on your good grade cows. The bull catalogue explains the breeding. Write for it. **John Dryden & Son, Brooklin, Ont.** Stations: Brooklin, G. T. R.; Myrtle, C. P. R. Long-distance telephone.

GREENGILL HERD OF HIGH-CLASS SHORTHORNS.

We offer for sale choice young bulls from 6 to 19 months old, sired by imp. Lord Roseberry, also cows and heifers, with calf at foot or bred either imp. or Canadian-bred.

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

Brown Lee Shorthorns!

Nonpareil Victor—63307—at head of herd. Young stock for sale at all times. Prices very reasonable. **Ayr, C. P. R.; Drumbo, G. T. R.**

DOUGLAS BROWN, AYR, ONT. PLEASE MENTION THIS PAPER

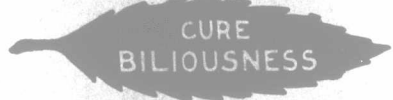
MILBURN'S



Are a combination of the active principles of the most valuable vegetable remedies for diseases and disorders of the Liver, Stomach and Bowels.



Sick Headache, Jaundice, Heartburn, Catarrh of the Stomach, Dizziness, Blisters and Pimples.



Dyspepsia, Sour Stomach, Water Brash, Liver Complaint, Sallow or Muddy Complexion.



Sweeten the breath and clear away all waste and poisonous matter from the system. Price 25c. a bottle or 5 for \$1.00. All dealers or THE T. MILBURN CO., Limited, Toronto, Ont.

Shorthorns!

WOULD EXCHANGE
a few high-class Shorthorns FOR PURE-BRED OR GOOD GRADE SHEEP, Shropshires preferred.

D. Allan Black, Kingston, Ontario.

EAST BANK HERDS

Shorthorn Cattle, Yorkshire and Berkshire Swine.

As I must leave farm in March, I am offering 40 sows of choice breeding and quality. Prize winners and the get of prizewinners. Also cows and calves bred, fed and sold right.

IRA L. HOWLETT, KELDON.

CEDARDALE SHORTHORNS

Owing to scarcity of feed, am offering at specially low figures for quick sale: 17 heifers, one to three years old; 4 young bulls from six months to one year old; 16 cows, in calf or with calf at foot. Both beef and deep-milking strains. T. S. Sproule, M.P., Markdale, Ont.

SUNNYSIDE STOCK FARM

Bulls in service: Queenston Archer - 48998 - Trout Creek Stamp - 67660 - A number of first-class young bulls, red and roan, and a few cows and heifers, for sale. Prices right. JAMES GIBB, Brookdale, Ont.

R. H. REID,

Glover Lea Stock Farm, PINE RIVER, ONT., BREEDER OF SHORTHORN CATTLE Golden Cross (imp.) at head of herd.

FLETCHER'S SHORTHORNS & YORKSHIRES

Present offering: Young bulls, red or roan, 10 to 19 months old, sired by my noted stock bull (imp.) Joy of Morning; also heifers and cows in calf. In Yorkshires: Choice sows bred, and boars fit for service, from imp. sire and dam. GEO. D. FLETCHER, Binkham P.O., Ont. Erin Sta., C. P. R.

Maple Grove Shorthorns!

Herd headed by the grand show bull, Starry Morning. Present offering: Imported and home bred cows and heifers; also a few young bulls. Terms and prices to suit the times.

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

STONELEIGH E. JEFFS & SONS, STOCK FARM Breeders of Shorthorns, Leicesters and Berkshires. Young stock of various ages and both sexes for sale. Send Head P.O. Bradford & Burton stns., G.T.R.

SCOTCH SHORTHORNS!

We now offer four heifer calves 10 and 11 months old. All reds. Bred from imp. sire and dams. Will be sold right. G. RANKIN & SONS, Wyebridge P.O., Wyevale Sta.

Scotch Shorthorns—Young bulls and heifers, reds and roans, direct from imp. stock; also herd bull, Good Mornings, imp., 4 years old, AI stock bull quiet and sure; also one Percheron stallion, 6 years old, black, great weight and action, sure foal-getter; sound, quiet, well broken to harness. Prices and terms in favor of buyer. L. K. WEBER, Hawkesville, Ont.

GOSSIP.

Graham Bros., Claremont, Ont., the well-known importers of high-class Clydesdale and Hackney horses, write: "We opened business in the New Year very satisfactorily, selling to Messrs. George A. Bennett & Sons, Carlisle, Ont., the prizewinning three-year-old Hackney stallion, Admaston Nugget, winner of first in class at Toronto National Exhibition, first and championship at the Ottawa Central Exhibition, first at Ogdensburg (N. Y.), and second at the Chicago International in 1907. He is not only a colt of high individual merit, but is one of the very best bred Hackney stallions on this side of the water, and the Messrs. Bennett are to be congratulated on having purchased such a high-class horse. To Mr. Wm. Parker, Cassel, Ont., goes the 1906 champion Clydesdale, Right Forward, winner of first and championship at the Canadian National Exhibition, Toronto, and first and championship at the Chicago International Exposition. Right Forward has size and substance, fine conformation, with the best of legs, feet and pasterns, and of the choicest breeding. He comes of the best producing parentage known to the Clydesdale world. His dam is the great show mare, Mary 2nd, winner of twelve championships at the leading Scottish shows, and his sire, the 900-guinea Prince Thomas, winner of first and championship at the H. & A. S. Show in 1898 and 1900. Right Forward's greatest claim to public confidence is found in the remarkable size and quality of the stock left by him. Yearling colts at Robert Davies' sale, 1906, sold from \$375 to \$575. We have just sold to Mr. Emerson Johnston, Binbrook, Ont., the big, handsome, dark brown five-year-old Clydesdale stallion, The Squire (12771). He is a wide, smooth, stylish horse of great substance, fine action, with the best of legs and feet, resembling very closely his sire, the great show horse, Drumflower (10537), champion winner of the leading Scottish Shows. His breeding is of the choicest, through the blood of Drumflower, Macgregor, Darnley and Prince of Wales on the sire's side, and that of Eastfield Champion, St. Lawrence and Old Times on the dam's. The Squire has proved himself a very sure and satisfactory breeder, and to the district for which he is intended, however well it may be provided with breeding horses, The Squire will prove an addition of great value. To Mr. Wm. Swackhamer, Palermo, Ont., goes the Clydesdale stallion, St. Patrick, winner of first in class at the Canada Central Exhibition, Ottawa, 1907. He is an exceptionally well-bred horse of much substance and quality, being sired by the World's Fair champion, Prince Patrick 6773; his dam being Miss Stanley 5877, a daughter of the noted Lily Macgregor 3957. Miss Stanley, the dam of St. Patrick, was awarded the first premium at the World's Columbian Exposition in 1893, as the best three-year-old Clydesdale mare exhibited, and his granddam, Lily Macgregor, was awarded the sweepstakes premium as being the best Clyde mare in America or Scotland. St. Patrick has proved himself one of the best and most successful sires in the country. To L. E. Stephens, Robinson, Ill., U. S. A., the imported six-year-old mare, Lady Macraith, and the 1907 champion three-year-old mare, Lady Margaret, winner of first in class and championship at the Canadian National Exhibition (Toronto), first and championship at Ottawa Central Exhibition, first and championship at Ogdensburg (N. Y.), first in class and champion three-year-old mare at Chicago International Exposition. Our horses are all doing well, and we have now on hand a grand lot of stallions coming three years old, with size and quality and gilt-edge breeding, and all in first-class condition. We have just issued a new catalogue, which will be mailed to prospective buyers on application."

How to raise calves without milk is a question on which many dairymen are looking for light in these times when whole milk and cheese run so high in price. It is claimed for Blatchford's Calf Meal, an old and tried preparation advertised in this paper, that it is a perfect milk substitute, and much cheaper, and that it is very popular in England, and wherever it has been given a trial. See the advertisement, and write for circular giving fuller information.

LOOK \$200.00 IN CASH AND 500 VALUABLE PREMIUMS

In order to introduce our goods into homes where they are not already known, we have decided to give away the above-named sum and 500 handsome premiums. The cash and premiums will be given in order of merit to persons sending in the best ending to the Limerick Verse that is written in part below.

1st prize	.....	\$50.00 in cash
2nd prize	.....	\$40.00 in cash
3rd prize	.....	\$35.00 in cash
4th prize	.....	\$25.00 in cash
5th to 9th prizes	.....	Five prizes of \$10.00 each
10th to 14th	.....	Five Ladies' or Gents' Gold Filled Hunting Case Watches.
15th to 19th	.....	Five Family Dinner Sets, (97 pieces).
20th to 24th	.....	Five Ladies' or Gents' 14k Gold Plated Watches.
25th to 29th	.....	Five sets of half a dozen Silver Plated Knives and Forks. (Regent)
30th to 34th	.....	Five Ladies' or Gents' Solid Silver Watches.
35th to 39th	.....	Five Handmade Violins and Bows.
40th to 44th	.....	Five Hardwood Accordions.
45th to 49th	.....	Five Magnificent Fur Rufts.
50th to 54th	.....	Ten Ladies' Toilet Sets.
55th to 59th	.....	One Hundred Ladies' or Gents' 14k Gold Filled Rings.
60th to 64th	.....	One Hundred Waterton Fountain Pens.
65th to 69th	.....	One Hundred Sets of 6 Silver Plated Tea Spoons (Regent).
70th to 74th	.....	Forty Ladies' Hand Bags.
75th to 79th	.....	100 Sets of Silver Plated Sugar Spoons and Butter Knives (Regent)

Below will be found the Limerick Verse WITH A MISSING LINE, which line we expect our competitors to supply:

In giving good prizes we take pride,
They make known our goods both far and wide:
Why delay,
Call or write to-day,

(Fill in the line above.)
Please note that the last line should rhyme with the first two lines. As a last word for the missing line, we would suggest the use of any of the following words: "divide," "applied," "fled," "simplified," "provide," "confide," "supplied," "denied," "beside," "signed," "tried," "decide," "betide," "cried," "dried," "bride," "side," "complicated," "died," "implied," "spied," "inside," "died," "tried," "ride," "tied," "abide," "aside," "deride," "astride," "belled." These words all rhyme with the endings of the first two lines in the verse.

CONDITIONS
There is another simple condition attached to this contest about which we will write you as soon as we receive your answer to the above. This condition does not involve the spending of one cent of your money. The judging of the Limericks will be in the hands of a committee of three gentlemen of undoubted integrity who have no connection with this office. No employee of ours or any of their relations will be allowed to compete, and the committee's judgment must be accepted as final. I agree to abide by the decision of the committee of three appointed by the Bovel Manufacturing Co., and enter this competition on that distinct understanding.

Signature.....
Address.....
(State whether we are to address you as Mr., Mrs. or Miss.....)
Please write very plainly. Cut out this advt. and send it to us after filling in the blank line. The filling in of the missing line may take a little thought and time, but it should be time and energy well spent. There are over five hundred prizes, any one of which is well worth the time and energy that we ask you to expend. Surely this is enough for everyone! Write to-day. Do not send any money. We will answer your letter immediately, and tell you of the simple condition that must be adhered to. Address very plainly.

BOVEL MANUFACTURING CO., Dept. 10, MONTREAL

LIVINGSTON'S OIL CAKE MEAL.
OLD PROCESS
Nothing is better for fattening steers quickly and putting them on the market in prime condition than Oil Cake Meal. Thousands of Canadian and English stockmen use Livingston's, and would have no other. It is equally good for milk cows. They give more and better milk when fed Livingston's Oil Cake Meal. Also used for horses, sheep and hogs. Write for information regarding prices, etc., etc., to
DOMINION LINSEED OIL CO., LIMITED
Montreal, Que. Baden, Ont.

SHORTHORNS AND LINCOLN SHEEP.
A. EDWARD MEYER, BOX 378, GUELPH, ONT., BREEDS
Scotch Shorthorns
Two bulls, 11 and 19 months old—a Miss Ramden and a Beattie, both by the good breeding bull, Proud Gift = 60077 = (imp.), also cows and heifers in calf by him. Inspection solicited. Always have some choice Lincoln sheep for sale at reasonable prices.
J. T. GIBSON, DENFIELD, ONTARIO.

Shorthorns!
BELMAR PARC.
John Douglas, Manager. Peter White, Pembroke, Ont.
Calves for sale by our grand quartette of breeding and show bulls:
Nonpareil Archer, imp. Proud Gift, imp. Marigold Sailer. Nonpareil Eclipse.
Females. Imported and from imported stock in calf to these bulls.
An unsurpassed lot of yearling heifers.

SCOTCH SHORTHORN BULLS—Woodfield Prince, sire imported, =60038= (86064), dam Trout Creek Missie 20th =65967=; red, little white; calved July 6th, 1906; a show bull. Also four extra bull calves, 8 to 10 months, by the Lavender bull, Trout Creek Wonder =66167= (247851), out of Scotch cows; imported by W. D. Flatt; eligible for American Herdbook. Write for pedigrees. Gibbs' Woodfield Stock Farm, St. Catharines, Ontario.


SUBSCRIBE FOR "THE FARMER'S ADVOCATE AND HOME MAGAZINE."

LISTEN!

We are offering **Special Bargains in Shorthorns** just now. The Reason is that we have a **Large Stock and Feed is Scarce**. Most of you know the **Kind of Cattle** we have, so that it is useless repeating the usual formula. In order to **Reduce Our Stock**, so that we may be able to pull through the winter, we **Will Sell at Prices** which will **Well Repay the Purchaser** who has feed to keep them until spring. We have pretty nearly anything **You** want. If you can not come to see, write and tell us as nearly as possible what it is, and we will frankly tell you whether or not we can supply.

John Clancy, Manager. **H. Cargill & Son, Cargill, Ont.**

Lump Jaw



The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists,
75 Church Street, Toronto, Ontario

Hawthorn Herd of Deep-milking SHORTHORNS

6 YOUNG BULLS,
by Aberdeen Hero, Imp., =28840=, Also females all ages.

Wm. Grainger & Son,
LONDESBORO P. O.

HERD BULL FOR SALE.

Lord Lieutenant (imported) No. =50060=, five-year-old. A1 stock bull, quiet and sure. 2 bulls just over 1 year. 2 bulls just under 1 year. Half dozen choice 1 and 1 year old heifers. All from imported sires, and some from imported dams. All are from good milking dams. Visitors always welcome.


SCOTT BROS., Highgate P. O. and Station,
M. C. Ry. and P. M. Ry.

Athelstane Shorthorns!

Three choice bulls from 9 to 12 months and heifers from 1 to 3 years; low-down, thick fleshed sort, of families: Rosewood, Butterfly, Rossling, and Countess, and mostly sired by the Bruce Mayflower bull, Star Prince =53900=. Prices very reasonable. **WM. WALDIE,** Stratford, Ont. Box 324.

YOUNG SHORTHORN BULLS!

Am now offering 2 grand ones from Scottish Peer (Imp.). Will make show animals. Also Leicester sheep. A number of young breeding ewes to sell. **JAS. SNELL, Clinton, Ont.**



Golden Fox of Dentonia. First prize and junior champion, Toronto 1907. One of the bulls now at the head of my herd. He is doubly bred—Flying Fox and Golden Fox's Lad. Correspondence invited. **T. P. ORR,** Weston Road, Toronto Junction, Ont.

Reinforce Your DAIRY HERD with the Blood of the Winners.

DON JERSEY HERD

can furnish you with young bulls sired by Golden Lad of Thorncliffe, who was the sire of the herd winning first prize for the progeny of one bull at the Toronto Exhibition 1907. If you want practically money-making Jerseys secure one of these well-bred bulls. **D. DUNCAN, Don, Ont., Duncan Station, C. N. O.**

Brampton Jerseys

Unbroken record of several years success at all leading Canadian exhibitions is unequalled by any other herd of any kind or breed of live stock on the American continent. When buying a family cow, a stock bull or a dairy heifer, buy only the best. Our public record proves that we have them. **B. H. BULL & SON,** Brampton, Ont.

GOSSIP.

CLYDESDALE AUCTION SALE.

At the Snodden House stables, Peterboro, Ont., on Wednesday, February 19th, Mr. T. H. Hassard, of Millbrook, Ont., the well-known importer of Clydesdale, Hackney and Percheron horses, will sell by auction sixteen head of imported Clydesdale fillies, three of them rising two years of age, nine rising three, three rising four, and one rising six. These fillies were selected by Mr. Hassard from the leading breeders in Scotland, and are a superior lot, with the grand combination of size and quality, and certainly no richer blood is known in the breed than they carry, being sired by such notables in the horse world as Baron Mitchell, Prince Thomas, Hiawatha Godolphin, Royal Chatten, Rosedale, Prince Gallant, Carthusian, Royal Fashion, etc. None have less than two registered dams, and some have six. They are up to a big size, and of good colors. Several of them have been bred, and are supposed to be in foal. The sale will commence at 1.30 p. m. Terms will be cash, or six months' on bankable paper, bearing six per cent. interest. J. K. McEwen, Weston, and J. H. Gardiner, Peterboro, are the auctioneers. Catalogues will be mailed on application.

R. H. REID & SONS' SHORTHORN SALE.

As announced last week, Messrs. R. H. Reid & Sons, of Pine River, Ont., at their farm, Clover Lea, eight miles from Ripley Station, will, on Feb. 14th, sell by auction, without reserve, eleven Shorthorn bulls and five heifers, ranging from ten to fifteen months old, in splendid condition, and an extra good lot. One of the heifers is a Cecelia, by Wellesley Chancellor, a son of Imp. Bapton Chancellor; dam by Imp. Blue Ribbon. The other four heifers are all the get of Imp. Golden Cross, a Brawith Bud bull, a son of the Princess Royal bull, Spion Kop. Three of them are out of extra choice milking dams, whose blood lines trace to Imp. Beauty, by Snowball, and Imp. Princess, by Son of Lancaster, superior milking strains. The other is out of Claret Cup (imp.), a Kinellar Claret. Here are five choice young heifers that will certainly prove good buying. One of the bulls is the get of Imp. Royal Champion, a Marr Roan Lady, and out of Imp. Apple Pie, a Marchioness-bred daughter of the great Ivanhoe. This is a very desirable young bull, exceedingly richly bred. Another is a red son of King of Diamonds =60099=, a Mary-bred son of the Clara bull, Pennon Diamond (81837); dam Princess Alice 6th (imp.); another very choicely-bred young bull, and a good individual. The balance are the get of Imp. Golden Cross. On the dam's side, one of them is out of Viola =65428=, a daughter of Imp. Merchantman. This cow traces to Imp. Princess, and is a splendid milker. Another, tracing to Imp. Princess on dam's side, is out of Lady Aberdeen, a daughter of the Rosebud bull, Golden Nugget. Another, a Cecelia, is out of Heather Blossom 3rd =56098=, an exceptionally well-bred daughter of Imp. Blue Ribbon, a Kinellar Rosebud. Another is a son of Claret Cup (imp.). Here is a very desirable young bull. Another is out of a Roan Duchess dam, whose sire, Nonpareil Archer, was a straight-bred Nonpareil. Two of the others are out of extra good milking dams, whose lineage goes to Imp. Old Willey. The other two are full brothers, both out of Brookdale Gem 2nd, whose imported lineage was a strain noted for their great milking qualities. It will thus be seen that at this sale are some very richly-bred things of pure Scotch breeding, and several bred on strictly dairy lines; an opportunity seldom offered of getting both lines at one sale.

Jerseys & Extra Choice Young Bulls For Sale.

8 and 9 months old, grandsons of the great Financial King, out of large, heavy-milking dams. Inquiries solicited. **ARTHUR H. TUFTS,** Box 111, Tweed, Ont.

Pine Ridge JERSEYS!

Having more bull calves this fall than usual, we will sell them cheap, considering quality. They are bred from our stock bull, Earl Denton, gr. son of the famous Flying Fox. **Wm. Willis & Son, Newmarket P. O. & Sta.**

STONECROFT STOCK FARM,

St. Anne de Bellevue, Quebec.
(Adjoining the new Macdonald College.)
Breeder and Importers of High-class
Ayrshire Cattle, Clydesdale Horses, Yorkshire Swine and Collie Dogs

Anything for sale. We offer especially a few select young bulls to clear cheap. Orders booked for spring pigs.

HAROLD M. MORGAN, Prop. **E. BJORKELAND, Manager,**
Bell Phone connection.

Neldpath Ayrshires

A choice lot of bulls ranging in age from 2, 4, 8 and 15 months. All sired by the world's champion, Imp. Douglassdale W. W. Salantyne, Stratford, Ontario. "Neldpath Farm." Long distance phone.

SPRING BROOD AYRSHIRES.

Produced nearly 7,000 lbs. of milk each, testing 4.9 per cent. butter fat, during the past three years. 30 head for sale before spring. All ages. Write for prices. **W. F. STAPHEN,** Box 163, Huntingdon, Que.

STONEHOUSE AYRSHIRES

On hand for sale: A number of imp. cows and heifers winners of high honors in Scotland & Canada. 4 young bulls bred from champions and winners themselves. Extra choice offerings.

HECTOR GORDON, Howick P. O. & Sta., Quebec

Burnside's Champion Ayrshires

My 1907 importation of 75 head being about all disposed of, I am preparing to import again. Mr. And. Mitchell, the world's most extensive dealer and breeder of Ayrshires, is at present scouring for me the best young bulls from the best herds in Scotland. Send in your order now for a choice bull and a female or two. Bulls will be out of quarantine in time for spring service. Correspondence solicited. Long-distance phone in house.

R. R. NESS, Howick, Que.

KELSO S. F. AYRSHIRES

My winnings at Ottawa this year were: Aged cow in milk, 1st and chs.; dry cow, 1st; Canadian bred cow, 4th; Canadian-bred 3-year-old. 3rd. For sale, anything in herd, both sexes. Extra choice stuff. **D. A. McFARLANE,** Kelso, Que., Athelstane Sta., G. T. R.

Glenhurst Ayrshires

Oldest-established herd in Ontario, Imp. and Canadian-bred. Average B. F. test for the whole herd, 4.3; milk yield, 40 to 60 lbs. a day. For sale: females of all ages, and several young bulls; all by Imp. sire and some out of Imp. dams. **James Bonning, Williamstown P. O., Lancaster Sta.**

SPRINGHILL AYRSHIRES

If you want something really good, we have cows and heifers, all ages, imported and home bred. Winners in any company. Out of dams with H. A. B. official milk records. Imported bulls, two- and one-year-old, "winners." Three extra good Sept. bull calves (imp. in dam). Prices very reasonable, within reach of all.

ROBERT HUNTER & SONS, Maxville, Ont.
Long-distance phone, Maxville 33.

Wardend Ayrshires

We have only four spring bull calves on hand for sale. Will sell them at reasonable prices. Sired by White Prince of Me No 21835, bred by A. Hume, Menie. **F. W. TAYLOR,** Wellman's Corners, Hoard's Sta., G. T. R.

AYRSHIRES

Young bulls from producing dams and same sire, from 7 months up to 2 years. Rare good ones and will speak for themselves. **H. DYMONT, Hickory Hill Stock Farm, Clappison, Ont. Dundas Station and Telegraph.**

RAW HIDES, SKINS, & C.

CONSIGNMENTS SOLICITED.
Write for LATEST PRICE LIST.

E. T. CARTER & CO., TORONTO ONT.

The Largest WOOL, HIDE & FUR HOUSE in Canada

FURS

LOOK HERE

Have on hand bull calves from choice dams, and sired by son of greatest cow in Canada. Bouteje Q. Pieterje De Kol 648 lbs. 7 days; 96 lbs. 1 day. His sire's dam and granddam have records averaging over 26 lbs. butter week. Also choice bulls fit for service. Prices right. **FRED ABBOTT,** Fairview Stock Farm, Harrietsville, Ont.

MAPLE GROVE HOLSTEINS.

Every female in the herd is in the Record of Merit. My stock bulls are backed up by heavy record dams. For sale: A few choice young bulls bred from Record sires and dams. **W. BOLLERT, Cassel P. O., Tavistock Sta.**

Grove Hill Holstein Herd

Offers high-class stock at reasonable prices. Only a few youngsters left. Pairs not akin. **F. R. MALLORY, Frankford, Ontario G. T. R. and C. O. Railway connections.**

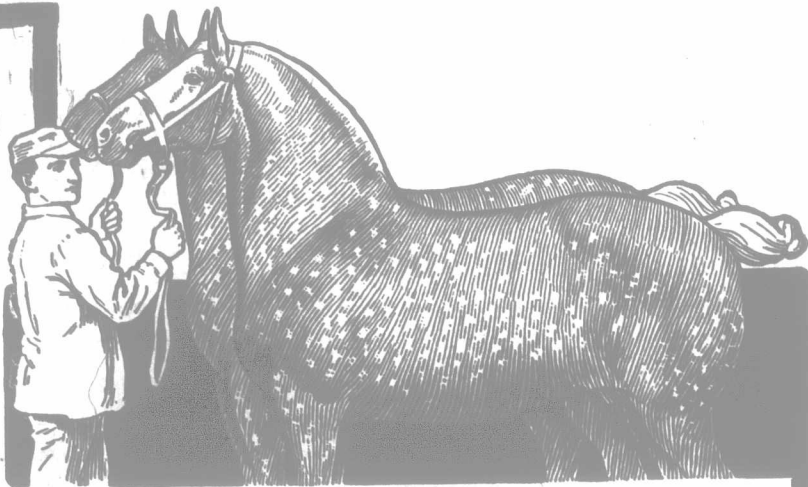
Glenwood Stock Farm—Holsteins and Yorkshires.

Holsteins all sold out. Have a few young Yorkshire sows, about 3 months old, for sale cheap. True to type and first-class. Bred from imported stock. **THOS. B. CARLAW & SON, Warkworth P. O., Campbellford Sta.**

Subscribe for "Farmer's Advocate"

What Horses Need

Conditioning horses for market requires skill in feeding. The stomach of the horse is not suited to the consumption of as much rough fodder as is that of the ox. The ration for the horse then, must be more concentrated—largely grains. But food itself is not more important than is a proper distribution of food after it's eaten. Thus digestion becomes the function to which we look for all satisfactory growth and fattening. Now long-continued heavy feeding may bring stomach derangement, dropsical swellings or even colic. Hence the horse needs a tonic to assist and perfect the digestive process.



DR HESS STOCK FOOD

The prescription of Dr. Hess (M.D., D.V.S.) possesses remarkable tonic properties for either horses, cattle, hogs or sheep. It assists digestion, thus making a greater amount of food available for building bone and muscle or for forming milk and fat. Besides it increases the appetite for roughage. Chemical analysis shows that there is less nutrition lost in the manure when Dr. Hess Stock Food is fed, which proves that more of the food is digested. The ingredients contained in Dr. Hess Stock Food are recommended by the ablest medical writers for improving digestion, purifying the blood, expelling waste material from the system and regulating the bowels.

Sold on a Written Guarantee
100 lbs. \$7.00; 25 lb. pail \$2.00
Smaller quantities at a slight advance. Duty paid.

Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed but twice a day, which proves it has the most digestive strength to the pound. Our Government recognizes Dr. Hess Stock Food as a medicinal compound, and this paper is back of the guarantee.

Free from the 1st to 10th of each month—Dr. Hess (M.D., D.V.S.) will prescribe for your ailing animals. You can have his 96-page Veterinary Book free any time for the asking. Mention this paper.

DR. HESS & CLARK, Ashland, Ohio, U. S. A.

Also Manufacturers of Dr. Hess Poultry Pan-a-c-e-a and Instant Louse Killer.
INSTANT LOUSE KILLER KILLS LICE.

FAIRVIEW HERD is the place to buy your next bull. I can furnish you with a bull sired by our great herd bull, PONTIAC KORNBYKE, who has 19 daughters in the last year's report that made official records from 12 pounds at less than two years old to over 313 pounds at four years, and the whole number averaged over 4 1/2% fat. No other bull in the world has ever made such a showing in one year. I have just tested another of his daughters that made 26.40 pounds butter in seven days with second calf. I have over 50 cows and heifers in calf to him. Come and look my herd over before making your selections elsewhere. E. H. Bellar, Newcastle, St. Law. Co., N. Y., near Prescott.

Maple Hill Holstein-Friesians

Bull calves from No. 1 dams, sired by bulls with great official backing. Write for prices.

G. W. Glemons, St. George, Ont.

QUEEN CITY HOLSTEINS.

15 young cows from 3 to 6 yrs., due to calve during next 3 mos.; bred to bulls having high official backing. Half of them will supply our requirements. Orders booked for bull calves at moderate prices; also a few bulls ready for service. Farm situated 7 miles north of Toronto, near the Metropolitan Ry. Write: R. F. Hicks, Newton Brook, Ont.

"THE MAPLES" HOLSTEIN HERD

Young bulls fit for service. Bull calves. Also a few choice heifer calves.

Walburn Rivers, FOLDEN'S, ONT.

MAPLE GLEN HOLSTEINS

Herd of 35 head with A. B. O. breeding, backed up by butter tests of over 16 lbs. as a two-year old to over 26 lbs. as a cow. A good herd to select from. Two spring bull calves on hand. A. B. O. test of one is over 26 lbs. for dam and 6. dam. Come and inspect the herd. Any animal will be offered for sale. G. A. GILROY, GLEN BUELL, ONT.

LYNDALE HOLSTEINS!

Bull calves for sale out of cows with records of from 18 to 20 lbs., also 3 heifers coming 2, and a number of young cows in Record of Merit, bred to a grandson of Pieterjie Henger veld's Court De Kol. BROWN BROS., LYN, ONTARIO.

EVERGREEN FARM HOLSTEINS are headed by the richly-bred bull, Sir Merce's Favorite. Dam, Favorite's 7th, and sire's dam, Merce's 3rd, have records averaging 23 1/2 lbs. butter in 7 days—85% fat. Young bulls out of Advanced Registry cows; also young females. F. C. PETTIT, Burgessville, Ont.

HILTON STOCK FARM—Holsteins Cotswolds and Tamworths—Present offering: 30 young cows; a nice lot of young pigs; few boars six months old, and sows in pig. R. O. MORROW & SON, Hilton P.O. Brighton Tel. and Stn.

FOR QUICK SALE.—Choice registered Holstein bull calves at \$25.00 each, sired by Prince Arctique De Kol, whose dam has an official record of over 18 pounds at three years old. Express paid anywhere in Ontario. W. A. BRYANT, Cairngorm, Ont.

HOLSTEINS

We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way: arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Also a few young bulls. 100 head to select from. Imported Pontiac Hermes, son of Hengerveld De Kol, world's greatest sire, head of herd. All leading breeds represented. H. E. GEORGE, Crampton, Ont. Putnam station, near Ingersoll.



RIVERSIDE HOLSTEINS RECORD OF MERIT HOLSTEINS

For sale: Eight young bulls from 3 to 8 months old, out of Record of Merit cows, sired by Johanna Rue 4th's Lad and Sir Pieterjie Poesh DeBoer, whose dam and sire's dam average in official test 25.87 lbs. butter in 7 days, and 87.6 lbs. milk 1 day.

J. W. RICHARDSON, Caledonia, Ont.



Herd 110 strong. Over 40 head now in the Record of Merit. Two of the richest-bred bulls in Canada at head of the herd. For sale: 18 bulls, from 3 months to 1 year of age, all out of Record of Merit cows and sired by the stock bulls.

P. D. EDM, Oxford Centre P.O. Woodstock Station.

GEO. RICE,
Annandale Stock Farm,
TILLSONBURG, ONT.

I will hold my annual sale on Tuesday, Feb. 25, on which date I will sell 15 brood sows and 45 head of imported and Canadian-bred registered Holsteins—28 cows and heifers in milk or with calf, and balance bulls 8 to 14 mos. old. Watch for particulars.

Shropshires and Cotswolds

I am now offering 35 shearing rams and 50 shearing ewes, also an extra good lot of ram and ewe lambs from imported Minton ewes and Butter ram.

JOHN MILLER,
Brougham P.O. Claremont Stn., O.P.R.

WHEN WRITING ADVERTISERS
PLEASE MENTION THIS PAPER

FAIRVIEW SHROPSHIRE

We wish our customers a prosperous New Year. Allow us to heartily thank you for your many kind words of appreciation of sheep sent in 1907. We congratulate ourselves in not having a single complaint of sheep sent out all the year. We still have a few good ewes and ewe lambs, bred to or sired by our famous champion rams, J. & D. J. CAMPBELL, Fairview Farm, Woodville, Ont.

SHROPSHIRE

Choice breeding ewes for sale at reasonable prices. White Wyandottes at all times. W. D. MONKMAN, BONDHEAD, ONT.

FURS WANTED IN ANY QUANTITY OF ALL KINDS HIDES

WRITE FOR
PRICE LIST

SHIPMENTS
SOLICITED

JOHN HALLAM III FRONT ST. EAST TORONTO

Farnham Farm Oxford Downs

We are now offering a number of select yearling rams and ram lambs, sired by imported ram, for dock headers; also yearling ewes and ewe lambs. Price reasonable.

Henry Arkell & Son, Arkell, Ontario.
Arkell, C. P. R.; Guelph, G. T. R.

Southdowns

FOR SALE: 2 imported prizewinning rams, and 60 home-bred and imported ewes. COLLIES.—Puppies by champion sire, and out of prizewinning dam.

Robt. McEwen, Byron, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

ENTICING SERVANT.

If A hires a man for one year for \$10 a month, and a neighbor comes along and offers him \$11 a month, and if the hired man leave A and go to B (1) can A claim damages from B or not?

2. What can A claim?

Ontario.

D. W. R.

Ans.—1. Yes.

2. While A is in a position, legally, to sue B for damages for knowingly enticing his servant away, it is a most unusual sort of action in this country, and what he would be likely to recover in that way would hardly warrant his incurring the incidental trouble and expense.

SPLINT—WORMS IN HORSES—FEEDING FROZEN WHEAT.

1. Good driving horse, seven years old, has hard, bony lump on inside of front leg, about three inches down from knee. Would this be a splint? Hoof on same leg is narrower than the other foot, and goes lame when he strikes a hard piece of road, or balls up with snow. Would you kindly prescribe for both?

2. Which do you think would be the most profitable for man and wife (neither very strong), with small family of boys, on 200-acre farm, to follow mixed farming or to go in for dairying, to keep twelve or fifteen cows? Farm is splendidly watered, and buildings very suitable for dairying; about 100 miles from Toronto market, but near railway. What breed of cows would you advise for dairying, for either buttermaking or selling cream?

3. Last-spring colt (heavy) got very dumpy and dry in hair and very weak last fall. I gave it turpentine and raw oil; afterwards boiled oats and bran for about a month, and it seemed to improve. I thought it had worms. And lately it is getting about the same as it was in the fall. What do you think would be the matter?

4. Heavy mare, in foal, is very dry in hair, and dull; has good appetite, but does not seem to thrive. Would she have worms? If so, what would you give her? Would ashes hurt her? 5. Would you advise feeding frozen feed wheat to horses? If so, in what quantity? How would you feed it to small and large pigs and cows? Would equal parts of bran and wheat be all right?

SUBSCRIBER.

Ans.—1. No doubt it is a splint. No treatment is usually considered necessary. The lump will likely be absorbed and disappear. You had better get a veterinarian to prescribe for the foot, or you might try one of the hoof oils that are for sale.

2. Dairying, combined with hog-raising, is the most profitable line of farming for the average man. Very few dairymen keep pure-breds exclusively, as good grade cows answer as well and are cheaper. All breeds have their excellencies, though, generally, the Jerseys are recommended for butter, and the Holsteins and Ayrshires for milk.

3 and 4. It is quite probable that both colt and mare are troubled with worms. Wood ashes might be tried with safety, we think—a handful in the feed at night. Some think there is nothing better for worms. If no benefit results, try the following standard remedy: Take one and a half ounces each of sulphate of copper, sulphate of iron, tartar emetic and calomel. Pulverize and mix, and make into twelve powders. Give a powder every night and morning till all are taken. After the last powder has been taken, feed only bran for eight or ten hours, and then give one and a half pints raw linseed oil. Feed only bran for twenty-four hours longer. The above is for a mature horse. Give colt only one-third of the dose of both powder and purgative.

5. We would not advise feeding frozen wheat to horses, except in small quantities, mixed with oats, and increased very gradually. For pigs, one part wheat to two of barley, and finely ground. For cows, oats might take the place of barley, with bran added.

Burdock BLOOD BITTERS

CURES
Dyspepsia, Boils, Pimples, Headaches, Constipation, Loss of Appetite, Salt Rheum, Erysipelas, Scrofula, and all troubles arising from the Stomach, Liver, Bowels or Blood.

Burdock BLOOD BITTERS

Mrs. A. Lethbridge, of Ballyduff, Ont., writes: "I believe I would have been in my grave long ago had it not been for Burdock Blood Bitters. I was run down to such an extent that I could scarcely move about the house. I was subject to severe headaches, backaches and dizziness; my appetite was gone and I was unable to do my housework. After using two bottles of B. B. B. I found my health fully restored. I warmly recommend it to all tired and worn out women."

Burdock BLOOD BITTERS

HAMPSHIRE DOWN SHEEP

'Reserve' for Champion in the Short-wool Classes, Smithfield, London, 1906, 1905 and 1908.

SPLINDID MUTTON GOOD WOOL GREAT WEIGHT

This highly valuable English Breed of Sheep is unrivalled in its

Wonderfully Early Maturity.

Hardiness of constitution, adapted to all climates whilst in the quality of mutton and large proportion of lean meat it is unsurpassed, and for crossing purposes with any other breed unequalled. Full information of

JAMES E. RAWLENCE,
Secretary Hampshire Down Sheep Breeders' Association,
Salisbury, England.

Oxford Down Sheep, Shorthorn Cattle Yorkshire Hogs.

Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons** Buena Vista Farm, Harriston, Ont.

Shropshires!

Choice shearing ewes bred to good ram, also ram and ewe lambs. **LLOYD-JONES BROS.,** Burford, Ont.

Cattle and Sheep Labels. Now is the time to get posted. Send your name and address for circular and sample. Write to-day. **F. G. James,** Bowmanville, Ont.

VANITY.
"In writing up the burglary," said the excited caller, "you can say that the thieves in their hurry overlooked \$750 worth of jewelry and solid silver plate in one of the cupboards." "Might that not bring the burglars to your house a second time?" suggested the editor. "I don't care if it does," exclaimed the other. "I don't want the public to get the impression that a gang of robbers can go through my house and only find \$25 worth of stuff worth stealing."

DODD'S KIDNEY PILLS

CURES RHEUMATISM BRIGHT'S DISEASE DIABETES BACKACHE

FOR ALL KIDNEY DISEASES

Exercise of the mother is essential to the strength of the coming kid. An excellent book of 235 pages on the history, breeding and care of the Angora goat may be had from this office; price \$1 (post free).

QUESTIONS AND ANSWERS. Miscellaneous.

PIGS WHEEZING.

Pigs, six weeks old, wheeze heavily; have been running with mother, and also eat with her. Have a dry place to sleep.

W. C. H.

Ans.—These pigs are evidently getting too much to eat, and too little exercise. The feed given the sow may be too rich for the little ones, and may be fed too cold. We should advise weaning them; giving them warmed milk to drink and dry meal, ground oats and bran in separate trough. A teaspoonful of sulphur to each pig given daily for two days in milk will help to purify their blood.

ERADICATING PLANTAIN.

Can we successfully destroy the narrow-leaved plantain, or buckthorn, by cutting closely with sharp hoe, either in fall or spring, or will it be necessary to pull it up? We unfortunately got quite a dose of it in clover seed sown last spring.

G. R. C.

Ans.—If not too numerous, get rid of the plants by cutting beneath the crown with a spud. If too many to be killed out in this way, put in a hoed crop or garden on the infested ground, and cultivate so well that the plants are not permitted to gain a foothold at any time during the season; then rib up with a double-mouldboard plow the last thing in the fall before frost.

GASOLINE ENGINES FOR LAND CULTIVATION.

1. Have gasoline engines ever been used in Ontario as a power for plowing and otherwise cultivating the soil?

2. As horse feed is high in price, and good men are very hard to get, would you advise using one on a farm that crops one hundred to one hundred and fifty acres a year? It takes nearly six horses to do the spring work on this farm, and there is little else for them to do for the rest of the year, except eat. Please let me know as soon as possible.

R. C. D.

Ans.—1. Not to our knowledge.
2. The time has scarcely arrived, we think, when such a change would be advisable. By some alteration in the system of cropping, it might be possible to get along with fewer horses, and keep them employed more steadily. Grow more corn, roots, potatoes, and try to get some land seeded to alfalfa. Mixed farming, with considerable attention to stock husbandry, will afford opportunity for the more regular employment of both men and horses.

BREEDING AND FEEDING GOATS.

I have a young goat eleven months old. I bred her three months ago. Do you think that is too young? How long does it take them after service before they have young? What would be best to feed her before coming in so as to keep her in good order and fatten the kids?

G. E. W.

Ans.—The best authorities state that the female goat (doe) should not, for best results, be bred until she reaches maturity, which is at sixteen to eighteen months. The period of gestation in goats is practically the same as in ewes, 147 to 155 days, or about five months. If bred to produce at one year old, the growth of the mother will be checked, and the kid will not be so strong as one from a more mature mother. There is no better feed for goats than good clover hay, and whole oats and bran mixed; just what she will eat clean at each meal. A half pint of oats, and the same bulk of bran, twice a day, should be enough for one so young as yours, if you have good clover hay. If not, the grain ration should be increased, and a little shelled corn added. Goats require more salt than sheep, and it should be kept in a box where she can take it at will. Exercise of the mother is essential to the strength of the coming kid. An excellent book of 235 pages on the history, breeding and care of the Angora goat may be had from this office; price \$1 (post free).

Elmhurst Berkshires

We have a number of choice young boars ready for service. Some imported, others imported in dam—also from imp. sire and dam—which we will price right for quick sale. Write us for what you want.

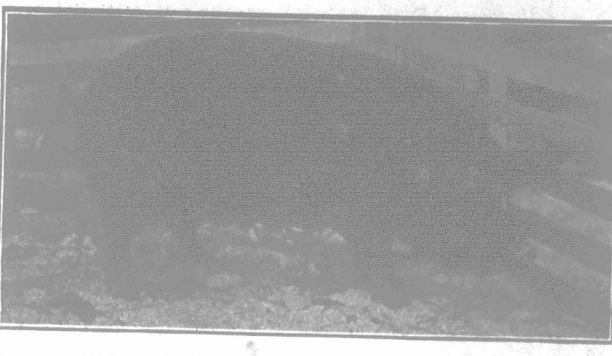
H. M. VANDERLIP,

Importer and Breeder, CAINSVILLE P. O., BRANT CO.

YORKSHIRES of Choicest Type and Breeding.



I have on hand 75 brood sows of Princess Fame, Cinderella, Clara, Minnie, Lady Frost and Queen Bess strains. My stock boars are true to type and richest breeding. For sale are a large number of sows bred and ready to breed, boars fit for service, and younger ones of both sexes. Pairs and trios not akin **J. W. BOYLE, P. O. Box 563, Woodstock, Ont.**



Large English Berkshires

for sale from imported stock. Sows with pig and pigs for sale. All ages. At reasonable prices. Guarantee satisfaction. Boars and sows delivered at Woodstock station, C. P. R. or G. T. R.

JOSHUA LAWRENCE,
Oxford Center, Ont.

Cedar Lodge Yorkshires

100 head brood sows (imp.) and the product of imp. stock, weighing from 500 to 800 lbs. each. Stock hogs by imp. sires and dams, very large and full of quality. Young stock of both sexes constantly on hand for sale. Pairs not akin. Satisfaction guaranteed.

P. O. COLLINS, Bowesville P.O., Ont.
Manotick Sta., C.P.R.

For Sale—Ohio Improved Chester Whites, the

largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old, pairs not akin; express charges prepaid; pedigrees and safe delivery guaranteed. Address **H. C. GEORGE, Putnam, Ont.**

Yorkshires—Boars ready for service; sows ready to breed, and bred; young pigs just weaned and ready to wean. Cotswold and Shropshire rams, yearlings and lambs, registered. GEO. M. SMITH, Mayville, Ont.

MONKLAND YORKSHIRES

are the easily fed, quick maturing kind. The sort the farmers want. All ages for sale. 100 sows bred now.

JAMES WILSON & SONS, FERGUS, ONTARIO.

Large White Yorkshires!

Am offering at the present time a choice lot of boars ready for service, from imported stock, also young pigs of both sexes, not akin. Prices right, and quality of breeding unequalled. Write or call on

H. J. DAVIS, WOODSTOCK, ONT.

OAKDALE BERKSHIRES

Largest Berkshire herd in Ontario imported. For sale: Sows bred and ready to breed, boars ready for service, and younger ones, all ages, richly bred on prize-winning lines and true to type. Everything guaranteed as represented. Long distance phone. **L. E. MORGAN, Milliken P.O., Co. of York.**

Yorkshires and Tamworths—Either bred, any age, both sexes; sows bred and ready to breed. Yorkshires bred from imp. sire and dam. Tamworths from Toronto winners. Pairs not akin. As good as the breed's produce. **CHAS. CURRIE, Morrilton P.O., Schaw Sta., C.P.R.**

Meadowbrook Yorkshires. Young stock of both sexes. A number of sows old enough to breed, all sired by Imp. Dalmeny Topman. Everything guaranteed as represented. **J. H. SNELL, Hagersville P.O. & Station.**

CHESTER WHITE HOGS

The largest herd of bacon-type Chester White hogs in Canada. Strictly high-class have won highest awards. Young stock of both sexes always on hand. Satisfaction guaranteed.

ROBERT CLARKE, 41 Cooper Street, Ottawa, Ont.

Glenburn Herd of Yorkshires

Winner of gold medal three years in succession. 8 young boars from 8 to 9 months; also 75 young sows, from 6 to 12 weeks old.

David Barr, Jr., Box 3, Renfrew, Ont.

LARGE ENGLISH YORKSHIRES.—We have a limited number of choice young pigs for sale, bred from our choicest sows and got by the imported boar, Dalmeny Joe 13577 and Broomhouse Beau 14514. Pigs from the latter won all the first prizes at the Ottawa Fat Stock Show last March for the best dressed carcasses, and sweepstakes over all breeds or grades. We guarantee satisfaction in all mail orders. **JOSEPH FEATHERSTON & SON, STREETSVILLE, ONT.**

SUNNYMOUNT BERKSHIRES!

Boars fit for service sows safely in pig, young sows 4 months old, young sows and boys 3 months old, imported in dam. **JOHN McLEOD**
Importer and breeder, Milton P. O. and Sta., C. P. R. & G. T. R.

Willowdale Berkshires

are unsurpassed for quality and breeding. Young stock, all ages, for sale reasonable. Satisfaction guaranteed. Long distance telephone in residence. **J. W. LSON, Importer and Breeder, Milton P. O. and Station, G. T. R. and C. P. R.**
When Writing Mention this Paper.

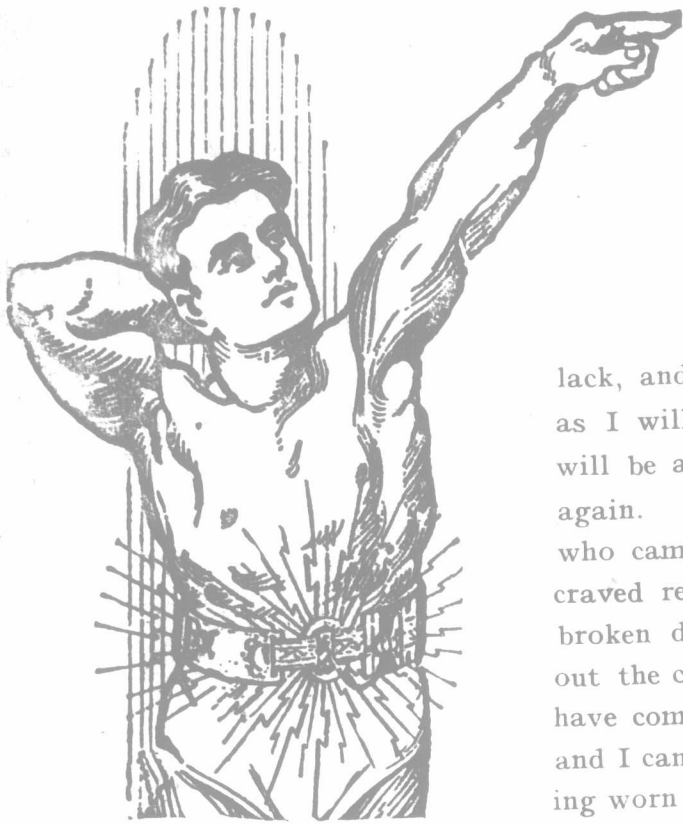
FAIRVIEW BERKSHIRES

Bred from imported and Canadian-bred sires and dams, and bred on prize-winning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boars. **HENRY MASON, SCARBORO P. O. Street cars pass the door**

Duroc-Jerseys Boars fit for service. Sows ready to breed. Several sows in pig, also younger ones. Imported Canadian Boy 19997 heads on herd. **MAC CAMPBELL & SONS, Harwich, Ont.**

"Ever try an automobile, Judge?" said a friend.
"No," replied the Judge, "but I've tried a lot of people who have."

"WHY AM I WEAK?"



That is the question which every weak man puts to himself. If you have thought much of your trouble you know that the force which keeps up the health and strength of your body is nothing more or less than electricity. All the motive power in your body is born of electricity. That is what you lack, and that force given to your weak organism as I will give it, will renew your strength. You will be able to enjoy life. You will be strong again. I can point with pride to hundreds of men who came to me after having failed to get the craved results from drugs and other treatments, men broken down, sleepless, short of memory and without the courage and energy of strong people. They have come to me almost without hope, discouraged; and I can point to these men to-day, after their having worn

DR. McLAUGHLIN'S ELECTRIC BELT

happy, enthused and shouting with gladness in the possession of the full vigor of perfect manhood. These men will at any time be glad to tell you what I have done for them.

"I am well satisfied with the results of your Belt. I have quit wearing it now as I am feeling all right again, and am able to do a fair day's work without that tired feeling, aching hips and legs, which troubled me so much; my appetite is really good. I have no stomach trouble as before. Yours respectfully, HENRY DICKER, Coulson, Ont."

"Your Belt has done wonders for me, and I am more than pleased with the results, for without it I do not believe I could ever have done another day's work in my life. I shall ever praise your Belt to all sufferers of Rheumatism, and can safely say that your Belt will do all that you say it will. You can print this for the good of others, if you wish." PETER L. HARRIS, Murray, Ont.

"I have had your Belt for two months and am glad to say that I am improving every day. My back was sore from the constant drain; now the pain is all gone, and I feel like a new man. I am still using the Belt every night, and I am sure I weigh ten pounds heavier." CLIFF HUXTABLE, Amherst, N. S.

The confidence I have in the wonderful curative powers of my Belt allows me to offer any man or woman who can give me reasonable security the use of the Belt at my risk, and they can

Pay When Cured

This appliance has cures in most every town and city in the country, and if you will write to me I will send you testimonials, given to me by people that are probably well known to you. My Belt not only cures weakness, but Rheumatism, Sciatica, Lumbago, Backache, Kidney Trouble, Nervousness, Constipation, Indigestion and Stomach Trouble. I have a beautiful illustrated book, which I will mail, sealed, to any address FREE. This book is full of lots of good, interesting reading for men. Call to-day. If you can't call, send coupon for Free Book.

DR. M. S. McLAUGHLIN,
112 Yonge St., Toronto, Can.

Dear Sir,—Please forward me one of your Books, as advertised.

Name

Address

Office Hours: 9. a. m. to 6 p. m.; Wednesday and Saturday until 8.30 p. m.

A VICTUAL POINT.

English Emigration Agent.—Cancel your passage? Why?

Doubtful Starter.—Chap's just told me that when it's one o'clock here, it's only four in the mornin' over in Canada!

Emigration Agent.—Well! Well! And what difference does that make to you?"

Doubtful Starter.—Catch me goin' to a place where ye've got to wait all that time for dinner every day!—[London Bystander.]

A quaint superstition is prevalent in many English villages. When a woman is going to be married every effort is made to prevent her from seeing her wedding ring before the ceremony, as it is considered that a sight of it except at the altar is bound to bring bad luck.



Tudhope Sleighs

It takes more than good material to make a good sleigh. Experience and expert workmanship are equally important. All three go into every Tudhope Sleigh.

Since 1855, Tudhopes have been building the best sleighs in Canada. And Tudhope Sleighs for this winter are the best that the Tudhopes have ever built.

TUDHOPE No. 42

A popular style for all uses. XXX Hickory Shafts, Runners etc. Steel-braced throughout. High spring back. All mountings nickel plated on brass.

Write for free copy of the Tudhope Sleigh book, showing illustrations of this and other Tudhope Sleighs.

THE TUDHOPE CARRIAGE CO., Ltd. GERRIA, Ont.

When Writing Advertisers Kindly Mention "The Farmer's Advocate."

QUESTIONS AND ANSWERS. Miscellaneous.

RAISING CALVES—BONE SPAVIN.

1. Will you kindly outline formula for raising young calves, so as to keep them healthy and in proper thriving condition?
2. Has blistering for bone spavin been generally satisfactory in removing the enlargement? If so, please prescribe method. NEW BEGINNER.

Ans.—1. See article by Geo. Rice in January 23rd issue, page 121.

2. Yes, if taken in early stage. If advanced, firing and blistering are necessary, and not always successful in removing enlargement, but generally in curing lameness. Repeated blistering with two drams each biniodide of mercury and powdered cantharides; lard, two ounces, are necessary; first clipping off the hair.

PEAS, BUCKWHEAT AND CLOVER FOR NEW BRUNSWICK FARM.

1. Will grass peas give as good results under the same conditions as Prussian Blue, as I think the straw of the former would be better to feed to sheep? The grain we would use for poultry.

2. I intend to sow the peas on land which last year was in oats, and previously pastured for several years. I turned up a good layer of humus when I plowed this fall, and I intend to apply 500 lbs. of kainite with the peas. Next year give the same dressing, with buckwheat seeded to clover, thus following the system of Schultz, of Lupitz. It has made a great success in Germany, and is mentioned in Bulletin No. 97, issued by the Department of Agriculture, Ottawa. What is your opinion of the idea?

3. We have been giving our laying hens as grain ration, equal parts of buckwheat and peas, as we have plenty of them. Would there be any objection to peas, as I do not see them mentioned in any of the poultry rations given in various papers? They have had apparently very good results, as the eggs are large and the hens lively.

4. We have no clover. Would peas take the place of it in protein supply? The farm is run out, and our principal stock is poultry and sheep. Peas and buckwheat grow better than anything else, with less manure. The land is sick of hay and oats, and a little potash generally has good results. F. H.

Ans.—1. A few years ago, when the pea weevil was so troublesome in Ontario, there was quite a boom in the growing of grass peas, which were sown with the oats and yielded fairly well in one or two dry seasons. Then came some moister summers, and the grass peas grew excessively to vines, yielding very unsatisfactorily of grain. Subsequently the all-but-total disappearance of the weevil permitted the return to the culture of round peas, and, at present, grass peas are seldom heard of in this Province. Poultry authorities assure us that grass peas are more valuable for poultry feed than ordinary peas, providing the hens relish them.

2. The proof of the pudding is in the eating. The application of kainite should prove of great advantage to the peas, as all legumes commonly respond well to applications of potash. The main difficulty we should anticipate would be in securing catches of clover with buckwheat, although some correspondents of "The Farmer's Advocate" have reported successful seedings of clover with buckwheat.

3. The ration of buckwheat and peas should be fairly satisfactory, the best evidence of which is the fact that you are getting eggs, and your hens are healthy. The ration that gives the results is the one to use.

4. Peas, like clover, are very rich in protein, and pea straw is especially well adapted to take the place of clover for sheep; while the addition of a small quantity of the grain also gives good results. We would not, however, advise extensive growing of peas, buckwheat and clover. Reasonable variety is always advantageous, both for soil and stock.