

NATIONAL
Separator

mond Mfg. Co. of
Manufacturers of the
and Sewing

an up-to-date machine,
ers in separating cream
force. It is the farmers'
ns easy, skims fast and
perfect cream, contain-
butter-fat desired. It is
n than any other. The
the very best material
struction of a high-speed
proper care should last a
ings are interchangeable
Every machine is guar-
work, and a trial of the
ited before purchasing
ready large sale of the
a growing demand for it,
he Canadian farmers ap-
-made machine that does
d well, and at the same
large profit on the small
for the "National"; try

TEAMERY
CO.,

GUELPH, ONT.,

MPBELL & GLENN,
ALBION ST.,
LONDON, ONT.,

ounties of Middlesex and

Guelph, Ltd.

andsome, staunchly-built,
and harness, at less than
OFITS CUT OFF. We are
Canada—every customer
atalogue free.



the only genuine
take no imitation.

GHTON, ONT.

Feed Cutters.

M'S

and Propeller

ATOR



as proved that THOM'S
successful machine on the
estimonials to prove this.
Carrier feed tables
tured.

EMENT WORKS,

D, CANADA.

THE FARMER'S ADVOCATE

PERSEVERE
AND SUCCEED
FOUNDED 1866
MAGAZINE

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

PUBLISHED AT LONDON, ONTARIO. OCTOBER 15, 1900. WINNIPEG, MANITOBA. No. 512

Land for Everybody.

Free Grants of Government Lands.
Cheap Railway Lands for Sale on
Easy Terms.

GOOD SOIL. PURE WATER. AMPLE FUEL.

Take your choice in
Alberta, Assiniboia, Saskatchewan
or Manitoba.

Most desirable land can be obtained in the Beaver Hill District and along the line of the Manitoba and North-western Railway.
In the Prince Albert, Duck Lake and Rosetern Districts, on the line of the Qu'Appelle, Long Lake and Saskatchewan Railway.
In the Olds District, along the line of the Calgary and Edmonton Railway, about 50 miles north of Calgary.
In Southern Alberta, in close proximity to the Calgary and Edmonton Railway and the Crow's Nest Pass Railway; suitable for mixed farming and ranching on both a large and small scale.
For full information concerning these Districts, Maps, Pamphlets, etc., FREE, apply to

Osler, Hammond & Nanton,
LAND OFFICE,
381 Main St. WINNIPEG, MAN.

FLEMING'S
LUMP JAW
CURE

TRADE MARK.

LUMP JAW

QUICKLY CURED.

A case of lump jaw in your herd means immediate loss; it may mean the infection of the rest of your herd; it may result in the distribution of the germs all over your pastures. All loss and danger can be positively averted by prompt use of

Fleming's Lump Jaw Cure

The only radical cure known. Is endorsed by the most prominent ranchers and shippers of the continent. Easy to use. Is applied externally. One to three applications cure. Leaves jaw sound and smooth. Cannot harm in any way. One bottle usually cures two or three ordinary or one severe case. Price \$2.00. Sold by druggists. Can be sent anywhere by mail.

Money cheerfully refunded if the remedy ever fails.

FREE:—Some important reports and an illustrated treatise on Lump Jaw. Write for them.

FLEMING BROS., Chemists,
St. George, Ont.

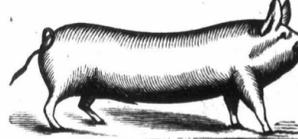
LIVE STOCK AUCTIONEER.
The undersigned is prepared to conduct pure-bred auction sales. 20 years' experience. References: John I. Holson and Alfred Stone, Guelph; Jas. Hunter, Alma, and Mossom Boyd, Bobcaygeon. Thos. Ingram, Care Mercury Office, Guelph, Ont.

PLEASE MENTION FARMER'S ADVOCATE.

CONTENTS OF THIS NUMBER.

EDITORIAL.	PAGE.
THANKSGIVING	591
ARGENTINE SHUTS OUT BRITISH BREEDING CATTLE	591
JUDGING AT THE FAIRS	591
IMPROVEMENT IN FAIR MANAGEMENT	592
THANKSGIVING DAY	592
NEXT YEAR'S EXHIBITIONS	592
TWO POINTS OF SUPERIORITY	592
THE PLACE OF DAIRYING IN THE EVOLUTION OF AGRICULTURE	592
THREE COPIES WORTH ONE DOLLAR	593
STOCK.	
PREMIER ROSS AND THE DRESSED-MEAT TRADE	593
THE LATE GARRETT F. FRANKLAND (ILLUSTRATED)	593
THE CONDITION IN WHICH SHEEP SHOULD BE EXHIBITED	594
P. E. ISLAND EXHIBITION; BRAN AS HOG FOOD	595
OUR SCOTTISH LETTER: MATING THE EWES	595
BELSHAZZAR 1885 (ILLUSTRATION)	595
FALL COLTS PREFERRED: PRINCE DANEGELT (ILLUSTRATION)	595
WANTED—A CHANCE TO VIEW LIVE STOCK	596
APPLES AS FEED FOR STOCK	596
SELECTION OF A RAM; AUTUMN FOALS; SERVICE BULLS	596
A LOSING GAME PERSISTED IN	596
JUDGING LIVE STOCK—SCORE CARD VS. THE OLD WAY	597
BACON IN THE BRITISH MARKET	597
HACKNEY MARE, MONA'S QUEEN, AND HER YEARLING DAUGHTER, TITANIA (ILLUSTRATION)	597
THE "DODDIE" IN THE ASCENDANT	597
PRINCE FRANK'S SON (ILLUSTRATION)	599
SIMON SMART (ILLUSTRATION)	599
PRIZEWINNING AYRSHIRES (ILLUSTRATION)	601
PAIR OF TYPICAL LINCOLNS (ILLUSTRATION)	601
IMPORTED OXFORD DOWNS (ILLUSTRATION)	601
FIRST-PRIZE TAMWORTH SOW (ILLUSTRATION)	602
FARM.	
BRANDON EXPERIMENTAL FARM NOTES	597
MANITOBA NATIVE SQUAW CORN (ILLUSTRATION)	597
WESTERN FAIR MANAGEMENT	597
A COMMENDABLE EFFORT	598
PEAS SHOULD BE TREATED FOR BUGS IN THE FALL	598
FALL WHEAT IN ALBERTA; BREEDING FROM EWE LAMBS	598
THE FOOD OF BLACKBIRDS	598
APPRECIATED IN INDIA	598
BLACK TEETH IN YOUNG PIGS—SPRAY FOR COWS	598
PROVIDE FOR THE ESCAPE OF SURPLUS WATER	599
WORTH REMEMBERING	599
THE RUSSIAN THISTLE AS FODDER	599
C. P. R. GRAINS AND GRASSES	599
MANITOBA PRIZE WHEAT AT PARIS	599
THE FAKER ELEMANT IN THE FAIRS	599
TESTING FARM WATER SUPPLY	599
NOTES ON THE TREATMENT OF FARMYARD MANURE	599
ANOTHER PROTEST	600
DR. WM. SAUNDERS AT THE BRITISH ASSOCIATION	600
LATE FALL PIGS	600
DAIRY.	
THE UDDER AS AN INDICATOR	600
DAIRY COW TESTS AT AYLMER, ONT., AND STRAFFORDVILLE FAIRS	600
CANADIAN CHEESE WINS AT PARIS	601
THE CALF INTENDED FOR DAIRY PURPOSES	601
HIGH-SCORING BUTTER AT PARIS	601
PROTECTING COWS FROM FLIES	601
POULTRY.	
NOTES FOR OCTOBER	601
BEGIN POULTRY-KEEPING ON A MODERATE SCALE	602
COST OF FEEDING SOME CHICKENS	602
FEATHER PULLING	602
APIARY.	
MELTING OLD COMBS (ILLUSTRATED)	602
ENTOMOLOGY.	
RED SPIDERS' INJURIES	602
GARDEN AND ORCHARD.	
FALL WORK IN THE GARDEN	603
EXPERIENCE WITH "BLACK SPOT"	603
IMPORTATION OF NURSERY STOCK	603
QUESTIONS AND ANSWERS.	
VETERINARY:—COWS GIVING BLOODY MILK; INDIGESTION, FOLLOWED BY INFLAMMATION OF THE STOMACH AND INTESTINES	603
MISCELLANEOUS:—BORERS IN PLUM TREES; BROME OR RYE GRASS FOR PASTURE; NO MORE C. P. R. TREE SIRS; TREES FOR LIGHT SANDY SOIL; RIGHTS OF Hired MAN	603-4
MARKETS.	
CHATTY STOCK LETTER FROM CHICAGO	604
TORONTO MARKETS	604
SOUTH AMERICAN DRESSED MEAT LANDED IN ENGLAND IN POOR CONDITION	604
APPLE MARKET REPORT	604
MISCELLANEOUS.	
TREATMENT OF CLOVER OR OTHER SOD LAND IN THE FALL FOR GRAIN OR CORN CROP, ETC.	604
HOME MAGAZINE.	
THE CHILDREN'S CORNER	605
THE QUIET HOUR	606
ONAMEA, HAWAII, H. I. (ILLUSTRATION)	607
POETRY—OLD FAVORITES	607
PUZZLES	609, 610, 611, 613, 614
GOSSIP	609, 610
NOTICES	589 and 590, 608 to 616
ADVERTISEMENTS	

PUBLISHED TWICE A MONTH, AT LONDON AND WINNIPEG, CAN.



This is the ideal bacon hog—160 to 200 lbs. live weight. Yorkshire and Berkshire crosses make the best bacon hogs.

GUARANTEED:
ANALYSIS. PURE LARD, 99.78%
WATER, 0.22%
100%

THE CPC LARD is the finest Lard in this country, guaranteed pure. Ask your grocer distinctly for it, and all other goods with same brand are guaranteed by us.

At our Store, next Post Office, you get all kinds of choice cured and fresh pork products, choicest Sausage and Bologna.

THE CANADIAN PACKING CO.,
P. O. BOX 392, LONDON.

Bigger Profits

Your Cheese, with Butter making will pay you bigger profits if you use WINDSOR SALT—pure, soluble, even crystals. Economical to use.

THE
Windsor Salt Co.,
Limited,
WINDSOR, - ONT.

THE ROB ROY MINES.

ARE YOU SATISFIED WITH 3%

ON YOUR MONEY?

If not, do as others have done who have made money—invest in a sound, substantial Mining Company, where the risk is no greater than in the business you are engaged in, and the profits larger.

One British Columbia stock (Le Roi) was sold here for a few cents a share, and is now worth over \$40 a share.

There are many opportunities for making money in mining if judgment is used. Co-operation is necessary in mining, and those who co-operate on a good thing get rich. If you are interested, drop me a postal (only cost you a cent), and I will give you full particulars. You don't have to invest, and investigation is cheap and profitable.

A. E. Welch, 207 Dundas St., London

BRANTFORD STEEL WIND MILLS

19th CENTURY
GALVANIZED ROLLER BEARINGS
CHICAGO'S FINEST STEEL
20th CENTURY
MY! WHAT A COMFORT THAT BRANTFORD MILL IS

POWER AND PUMPING MILLS
STEEL TOWERS AND FLAG STAFFS
IRON AND WOOD PUMPS
MAPLE LEAF GRAIN GRINDERS
BEE SUPPLIES

OLD SHAPLEY MUIR CO. LTD.
BRANTFORD CAN.

ADDRESS
Belleville Business College.
BELLEVILLE, ONTARIO.

FOUR WELL-EQUIPPED DEPARTMENTS.

You can, by attending the **FOREST CITY BUSINESS & SHORTHAND COLLEGE** London, Ont., acquire a good knowledge of business and shorthand within a reasonable time. Practical teaching. Good equipment.
J. W. Westervelt, Principal.

NOW OPEN.
FALL TERM IN THE
Central Business College,
TORONTO.
Enter any time. Ten teachers. Sixty typewriting machines. Unexcelled facilities for assisting graduates to positions. Write for calendar. W. H. SHAW, Principal.
Yonge and Gerrard Sts., Toronto.

ONTARIO BUSINESS COLLEGE
BELLEVILLE, ONTARIO.

Send for the illustrated catalogue for 1900; 152 pages, specially interesting (32nd year). Address—
ROBINSON & JOHNSON, F.C.A.

NIMMO AND HARRISON
Business and Shorthand College.
No. 15, I.O.O.F. Bldg., Yonge and College Sts., TORONTO.

All commercial and civil service subjects, shorthand and typewriting. Individual instruction. Open entire year. Circular and information free.

"'Tis Better to Have and Not Need, Than to Need and Not Have."

When it looks like rain you carry an umbrella. Some time ago it looked like "business." Those who took our advice and carried a business education are getting the benefit. Those who didn't, wish they had. Get an education that will be of use to you all your lifetime. Our business course is just what you need. Send for catalogue, which contains full information regarding this course, to the

NORTHERN Business College

C. A. FLEMING, PRINCIPAL,
OWEN SOUND, ONT.
Spring Term begins April 17th, 1900.

CENTRAL Business College
STRATFORD, ONTARIO.

A school that is doing the best work in business education in Canada to-day. Our magnificent catalogue gives full information. Send for one. Enter now if possible.
W. J. ELLIOTT, Principal.

LIGHTNING WELL MACH'Y
PUMPS, AIR LIFTS,
GASOLINE ENGINES
THE AMERICAN WELL WORKS
AURORA ILL. - CHICAGO - DALLAS, TEX.

The Razor Steel, Secret Temper, Cross-cut Saw.



WE take pleasure in offering to the public a saw manufactured of the finest quality of steel, and a temper which toughens and refines the steel, gives a keener cutting edge and holds it longer than by any process known. A saw to cut fast "must hold a keen cutting edge."

This secret process of temper is known and used only by ourselves.

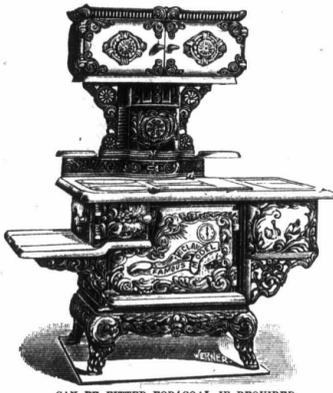
These Saws are elliptic ground thin back, requiring less set than any Saws now made, perfect taper from tooth to back.

Now, we ask you, when you go to buy a Saw, to ask for the Maple Leaf, Razor Steel, Secret Temper Saw, and if you are told that some other Saw is as good, ask your merchant to let you take them both home, and try them, and keep the one you like best. Silver steel is no longer a guarantee of quality, as some of the poorest steel made is now branded silver steel. We have the sole right for the "Razor Steel" brand.

It does not pay to buy a saw for one dollar less, and lose 25 cents per day in labor. Your saw must hold a keen edge to do a large day's work. Thousands of these Saws are shipped to the United States and sold at a higher price than the best American Saws.

MANUFACTURED ONLY BY
SHURLY & DIETRICH,
Galt, Ontario.

"Famous Model" Range For Wood



Brightens Life
— IN A —
Farmer's Home

THERMOMETER in oven door shows EXACT COOKING HEAT for pies, cakes, bread, etc.
VENTILATED OVEN allows of a constant circulation of PURE WARM AIR.
STEEL OVEN BOTTOM (that cannot crack or warp) heats oven quickly.
CEMENTED BOTTOM causes even baking of food.
ASBESTOS OVEN FRONT prevents heat escaping.
EXTRA HEAVY FIRE EXPOSED PARTS.
SECTIONAL FIRE-BOX LININGS AND STOVE TOP THAT CANNOT WARP.

CAN BE FITTED FOR COAL IF REQUIRED.
THE McCLARY MFG. CO.,
LONDON, TORONTO, MONTREAL, WINNIPEG, VANCOUVER.

Government Analysis.

LABORATORY OF INLAND REVENUE,
OFFICE OF OFFICIAL ANALYST,
Montreal, April 8, 1895.

"I hereby certify that I have drawn, by my own hand, ten samples of the

St. Lawrence Sugar Refining Co.'s

EXTRA STANDARD GRANULATED SUGAR, indiscriminately taken from ten lots of about 150 barrels each. I have analyzed same and find them uniformly to contain:

99.99 To **100** per cent. of pure Cane Sugar, with no impurities whatever."

(Signed) **JOHN BAKER EDWARDS, Ph. D., D.O.L.,**
Prof. of Chemistry and Public Analyst, Montreal.

LIGHT YOUR HOME WITH Sunlight Gas



The best light in the world. No more expensive than coal oil.

WRITE FOR PARTICULARS TO
The Sunlight Gas Co., Ltd.,
1, LITTLE ST. ANTOINE ST., MONTREAL

SEE TESTIMONIAL BELOW.

E. GUILLET & SONS,
The Canadian Fur Hat Works,
Marieville, P. Q., June 21st, 1900.

THE SUNLIGHT GAS CO., LTD.,
Montreal, P. Q.:

GENTLEMEN,—We are in receipt of yours of the 15th inst., re enquiry about our gas machine. In reply, would say we are now on with it on the third year, and must say it works first-class in every respect, and I feel convinced there is not a better machine made, and I have seen a good many.
Yours truly,
E. GUILLET.

TORONTO ENGRAVING CO.
92 BAY ST
CUTS BY ALL PROCESSES
LIVE STOCK A SPECIALTY.

Family Knitter
Cheapest, Simplest, Best.
Price, **\$8.00.**
Write for circular.
Dundas Knitting Machine Company,
DUNDAS, ONTARIO.

Excelsior Life Insurance Co.

HEAD OFFICE, TORONTO, ONT.

Best Policies

For protection and investment.
Absolute security. Agents wanted.

WINDMILLS

If you are looking for **Economical Power** You will make no mistake in buying a

Canadian Steel (Gald.) Airmotor

J. W. HUGHSON, Invermay, writes: "I found your mill to be a great benefit to me, and there can't be too much said in its favor. When other mills will not work, it will."

Grinders, Tanks, Pumps, etc.

Ontario Wind Engine and Pump Co., Ltd.,
TORONTO, ONT.

Build your own Coiled Spring Fence at cost of wire only.

THE LONDON Fence Machine

Beats them all
For speed, ease of operation and adjustment, quality of work, and durability.

It stands without a rival
As the best up-to-date machine on the market.

We lead in Coiled Steel Spring and Soft Galvanized Fence Wire. Write for prices.

London Fence Machine Co.

151 YORK STREET,
LONDON, ONT.
Responsible agents wanted.
Mention the ADVOCATE.

Boys for Farm Help.

Farmers, Nurserymen, Contractors and Fence Builders,
HALL'S BEAVER POST HOLE DIGGER, built of solid iron and steel, does the work in anything but solid rock. It pays for itself in one day's time.
Hall & Son,
TORONTO.

BOYS FOR FARM HELP.
The managers of Dr. Barnardo's Homes will be glad to receive applications from farmers or others for the boys who are arriving periodically from England to be placed in this country. All the young immigrants will have passed through a period of training in English Homes, and will be carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. ALFRED B. OWEN, Agent, Dr. Barnardo's Homes, 214 Farley Ave., Toronto. 4-3-0.

EARN MORE MONEY BY HOME STUDY FREE SCHOLARSHIPS
TO A LIMITED NUMBER
IN Electrical, Mechanical, Marine, Stationary or Locomotive **ENGINEERING**
American School of Correspondence, Boston, Mass.

PLEASE MENTION FARMER'S ADVOCATE.

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

VOL. XXXV.

LONDON, ONT., AND WINNIPEG, MAN., OCTOBER 15, 1900.

No. 512

EDITORIAL.

Thanksgiving.

The recurrence of our annual Thanksgiving Day brings with it reminders of the blessings of a beneficent Providence which in large measure have been realized by the Canadian people during the year. Peace and plenty are terms which have for so long a period characterized the condition of our people as a whole, that a comparison with the experience of many other lands in the same period easily leads to the acknowledgment that we have been a highly-favored people. It is true that the war cloud which a year ago had settled over South Africa, menacing the life and liberty of British subjects, and which later on broke in fury over that unhappy country, roused the patriotic spirit of our people and found a ready response to the call for volunteers to defend the honor of the nation, and that as a consequence there are some homes which are saddened by the loss of brave sons who laid down their lives for their country. The bereaved families have the sympathy of all, and the names and self-sacrifice of those who have fallen in the service of the empire will be honored and cherished by our common people. There is, however, great cause for congratulation that we as a Dominion are at peace with our neighbors, and that our country continues to enjoy immunity from the lamentable condition which inevitably comes to a land which is so unfortunate as to be the theatre of war.

The material prosperity which our people have enjoyed for the last few years gives promise of continuing. The farmers of this federation of Provinces have on the whole had a good year, the crops in all but one having been well up to the average of good years. Owing to exceptionally adverse weather conditions, the farms of the Province of Manitoba have not given the usual generous returns for the labor bestowed upon them, but this is a contingency that is liable to fall to the lot of any Province occasionally, and will not seriously check the progress of our Prairie Province, which is rich in its resourcefulness, nor the enterprise of its people, who have full faith in the future of the country and courage to demonstrate their confidence in its resources. Fortunately, a good proportion of its farmers have heeded the admonition to devote more attention to live stock, for which a good supply of feed is on hand, and which will serve a good purpose in this emergency in tiding over a trying year, and will furnish an experience from which lessons may be learned that will be helpful in ordering their future operations.

Live stock in nearly every line has been in active demand at good prices, the market for horses especially having greatly improved, while cattle of the beef breeds, as well as the dairy breeds, have sold readily at satisfactory figures. The dairy business has had one of the best years in its history, the pastures having in most sections kept unusually fresh throughout the summer season, producing a large and steady flow of milk, while prices for cheese and butter have kept at a higher average standard than for years. The demand for pork products suitable for the export trade has been uncommonly good during nearly the whole year, the prices for hogs ruling high almost continuously. As an adjunct to the dairy business, the raising of pigs has been one of the best-paying branches of farming, the by-products of the cheese factory, creamery and private dairy being largely used as food for pigs, and large numbers have been raised and prepared for market at a minimum cost and sold at paying prices.

As indicating the undoubted prosperity with which the country has been blessed, and the wonderful expansion in the export trade of the Dominion in agricultural products in the last few years, it is only necessary to compare the returns

from a few leading articles, showing that our sales of butter during the past year have amounted to over \$5,000,000, while in 1896 they were only \$1,000,000; of eggs, \$1,500,000, as against \$800,000; of cheese, \$20,000,000, as against \$13,000,000; bacon, hams and pork, \$12,800,000, as against \$4,450,000; wheat, \$11,500,000, as against \$5,000,000; poultry, \$2,000,000, as against \$18,000; and apples, \$2,500,000, as against \$1,500,000. Our export trade in live stock to the United States in the same time has grown by leaps and bounds, and while the volume of our exports of beef cattle and sheep to Great Britain (owing partially to unsatisfactory ocean freight rates) has not increased in as great a ratio as could be desired, yet prices during the last year to the feeder have been fairly satisfactory. Importations of pure-bred stock have been on a larger scale than for many years past, indicating an active demand, and while a large proportion of these have been sold to go out of the country, still a considerable number remain to be used as breeders to improve the home stock, and those sold have realized a fairly good profit to the importers.

The influx of population to our western provinces especially, has been a marked feature of the year; a very considerable area of agricultural land having been taken up, and largely by thrifty and industrious people, who are likely to make a success of farming.

We may well be thankful for the high stand taken by our agricultural products in the British market, and of our breeding stock in that of the United States. One of the strongest reasons in the present aspect of our affairs and in the outlook for encouragement is the decided intellectual activity aroused among the farming community, and which is steadily increasing. The farmer, his wife, his sons and daughters, are awake to the importance of true education—more in practical lines, a change which must inevitably come more and more into our educational system, from the primary and public schools up to our colleges and universities. The agricultural press, Farmers' Institutes, associations and conventions, all have their part in this uplifting to worthier ambitions, and as ours is largely an agricultural country, its prosperity is essentially dependent on the character of its agriculture. No country is more healthful for man or beast; no people more active or aggressive, more patient or plodding, more hopeful or self-reliant; and as no other class responds more readily to good times by spending their money freely than the farmers, so no other industry can stand the strain of adversity as well as can that of agriculture. The industrious farmers are the salvation of the country—the farmers feed us all—and their interests are worthy the most intelligent consideration and generous encouragement of those to whom especially the great national interests have been entrusted.

Argentine Shuts Out British Breeding Cattle.

We have it on the authority of the *Live Stock Journal* (Eng.) that the Argentine Government has issued a decree prohibiting the further importation of animals from the United Kingdom of Great Britain and Ireland. Shipments that were on the way when the decree was issued would be allowed to land, provided the animals were free from all traces of foot-and-mouth disease. The step is said to be the result of an outbreak of that disease having occurred among a cargo of fine stock imported to the Argentine from England on one of the steamers. While the cablegram bearing the news to England mentioned only cattle, it is presumed that sheep are also included in the prohibition. This decision on the part of the Argentine Government is felt by British owners of pure-bred herds and flocks to be an unfortunate occurrence, since Argentine has for many years been probably their best customer, especially for high-priced Short-

horns and Lincolns. While it is possible that the movement has something of retaliation in it for shutting out live animals from Argentine, still, at the same time, it is not likely to be rescinded until there is a real need felt for breeding stock from Britain. In view of the situation, then, it would seem an opportune time for our Dominion Shorthorn Breeders' Association to set about, as has been frequently urged, a movement to capture this market which Great Britain is so loath to see slip from her grasp. Canadian breeders have been importing liberally of late years from Great Britain to improve their herds and supply the increasing demands on the continent, so that with none going to the Argentine, they will now have a better choice and more favorable opportunities to buy from the Old Country herds.

Judging at the Fairs.

Now that the leading fairs of the year are over, and the incidents of the showyard campaign are fresh in mind, a review of the judging of live stock, with a view to deducting lessons that may lead to improvement, may not be out of place. While recognizing the hopelessness of ever arriving at a period when the selection of judges can be made wholly satisfactory to all exhibitors, we are yet of the opinion that in no country, on the whole, is more satisfactory judging secured than at the leading Canadian exhibitions. This applies in the broad, general acceptance of competency, as well as of fairness and freedom from bias, and it is a pleasure to recognize and commend the wholesome sense of honor as a rule manifested by the men who accept the generally thankless duty of placing the awards on the score of merit. That mistakes are sometimes made is admitted, but that is only human, and, as no man is infallible, these may well be forgiven when it is evident that they are errors of judgment only, or arise from the accidental overlooking of a defect for the time being, or the failure to give sufficient consideration to some point or quality of merit at the time. Then, there is the question of difference of opinion to be reckoned with, and the possibility that what appears to one a mistake may in the opinion of another seem justifiable and proper. In this, as in regard to most undertakings, it is easier to criticise or to find fault than to do better work, as many a preacher and many a teacher, as well as many a judge of stock, firmly believes, and for this reason they doubtless think, as we are disposed to admit, that criticism might well be characterized by more charitableness than is usually evident on the part of the public and the press.

The question of the number of judges calculated to do the best work and give the most general satisfaction is one that has not been finally settled, and is a perennial subject of discussion and difference of opinion, though it has clearly come down to a question of one versus two, except in the case of two failing to agree, when, if each man holds out for his own opinion, as he should if he has any decided preference, a referee, who is practically a single judge, breaks the tie, though he does not thereby necessarily declare that his favorite in the field has been given premier place. That this is possible was plainly demonstrated at the Western Fair, where, under a single judge, a heifer which at Toronto was placed first by the two acting judges was relegated to fourth position at London, the competition being the same. The reasonable inference is that, if the two judges at Toronto had disagreed on the disposition of first and second honors, and the judge who acted at London had been called as referee, the heifer placed fourth at the latter place would have been second at the former, and we are not sure that even the owner of the two, who was the same in each case, would have said it was wrong, and yet it is clear she was

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

TWO DISTINCT PUBLICATIONS—ONTARIO AND MANITOBA EDITIONS.

PUBLISHED SEMI-MONTHLY, BY
THE WILLIAM WELD COMPANY (LIMITED).

EASTERN OFFICE:
CARLING STREET, LONDON, ONT.

WESTERN OFFICE:
MCINTYRE BLOCK, MAIN STREET, WINNIPEG, MAN.

LONDON, ENGLAND, OFFICE:
W. W. CHAPMAN, Agent, Fitzalan House,
Strand, London, W. C., England.

JOHN WELD, MANAGER.

1. THE FARMER'S ADVOCATE is published on the first and fifteenth of each month. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners, and stockmen, of any publication in Canada.
2. TERMS OF SUBSCRIPTION—\$1.00 per year in advance; \$1.25 if in arrears; sample copy free. European subscriptions, 6s. or \$1.50. New subscriptions can commence with any month.
3. ADVERTISING RATES—Single insertion, 30 cents per line. Contract rates furnished on application.
4. DISCONTINUANCES—Remember that the publisher must be notified by letter or post-card when a subscriber wishes his paper stopped. All arrears must be paid. Returning your paper will not enable us to discontinue it, as we cannot find your name on our books unless your Post Office address is given.
5. THE ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.
6. THE LAW IS, that all subscribers to newspapers are held responsible until all arrears are paid and their paper ordered to be discontinued.
7. REMITTANCES should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.
8. ALWAYS GIVE THE NAME of the Post Office to which your paper is sent. Your name cannot be found on our books unless this is done.
9. THE DATE ON YOUR LABEL shows to what time your subscription is paid.
10. SUBSCRIBERS failing to receive their paper promptly and regularly will confer a favor by reporting the fact at once.
11. NO ANONYMOUS communications or enquiries will receive attention.
12. LETTERS intended for publication should be written on one side of the paper only.
13. 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 ADVOCATE, 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.
14. 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 CO.,
LONDON, CANADA.

not the choice of the London judge for even that position. This is only one instance of a number of reversals of the placing of animals in the various classes at the three principal Ontario shows this year, which are, to say the least, confusing to those who look to the judges for a standard to go by, and it does seem reasonable to expect that competent judges should come more nearly to agreeing on the relative placing of the animals in competition on the basis of merit. Of course, in some instances one animal may go off in condition in the interim between fairs and show to less advantage on its second or third appearance, but this contingency did not apply in the case we have cited. While we have no hesitation in stating our own preference, as a result of experience and observation, for the single-judge system, we have no quarrel with those who prefer to trust to two rather than to one, with the evident expectation that they will agree, but with provision for a referee if they differ. The difficulty in the latter case seems to be that some men lack the courage to disagree, and that compromises are sometimes made which do not reflect the real judgment of at least one of the twain, who may be the better judge and the freer from bias. As an alternative expedient to those who are timid of trusting all to one man who may not prove to be as strong and steady of nerve as is thought desirable, we commend for consideration the practice which we notice has been adopted at one or more of the State fairs over the line, of giving the single judge, if he comes to a hard place where he cannot fully satisfy himself, the privilege of calling in for consultation a breeder from the company of onlookers in whose judgment he has confidence. It may be objected that the judge may be unfortunate in the selection of a counsellor, but the reply is ready that, in the case of two judges who fail to agree, and require an umpire, the choice may be influenced by those less free from prejudice than

is the single judge who has been entrusted with the work and who knows he will be held personally accountable for its prosecution, and cannot shift the responsibility, since he must either have concurred with his chosen colleague or acted on his own judgment alone after the conference. One thing which appears to us important to be kept in view, both in the appointment of judges and in the actual work of judging, is to aim at the encouragement of a uniform type in each breed or class, having due regard, of course, to constitutional vigor and usefulness, and to suitability to the demands of our best markets. With these things in view, the work of the judges should show as much uniformity and consistency in rating as the character of the material brought before them will admit.

The suggestion that judges be required to give reasons for their rating of the prize animals, while it may in theory seem reasonable, is scarcely practicable on a large scale, since it would take up endless time, and, besides, many of the best judges would shrink from the ordeal of a public address, for which they have had no training, and the tendency would be to bring in talkative theorists having hobbies and fads to bolster up, and that class can invariably frame a plausible reason for their work, even if it be wide of the standard approved by well-informed and up-to-date, practical men. The almost universal failure of the score-card system to give satisfaction in the public judging ring, when on trial, well confirms our contention in this regard.

Improvement in Fair Management.

SIR,—I have read and re-read your most commendable and well-written editorial article in Sept. 15th issue, "After the Exhibition," and while I heartily endorse it in the main, still I quite realize the great strain agricultural fair boards are making in order to run their concerns to a financial success, oftentimes accepting money from shady men managing side shows of questionable character, which I do not in any way justify, but rather excuse, because directors are not exercising that careful selection of these that they should. Should an objectionable side show creep in, it should be promptly excluded from the grounds, and it is the duty of the local police in the corporation where the show is held to enforce the law against any gambling devices or games of chance. It is all very well to hold up the Royal Society of England as a model, but we have not arrived to the same plane as it, and we cannot hope to until the same patronage of wealthy and influential people is sympathetically bestowed, as it is in Britain. Can you explain why it is that the "select 400" of Toronto are not to be met in the hallways of the cattle and sheep buildings or at the side of the horse ring at the Industrial? Some few of these people, of course, are to be seen, but no general turnout of the elite. Is it for the reason that we have no "county" folk to set the example—to show that it is the correct thing to give commendation and encouragement to the successful breeders and feeders of prize animals? Speaking (or, rather, writing, in this case) generally, the manufacturing interests were not represented this year, and it looked to me as if the gulf between urban and rural people were widening. Now, if you abolish a certain class of catchy grand-stand performances, as well as the side shows, where is the money to come from to pay prizes? Gate receipts and entry fees will not do it, by a long way. Candidly, I believe that exhibitors of stock, etc., do not pay entry fees in proportion to the prizes for which they compete, probably not over one-quarter of that a man would require to stake to enter a horse in a race.

It would be a distinct gain to many boards, preserving them from falling into ruts, were steps taken to secure the presence upon them from time to time of new men, whose character and capacity would infuse the exhibitions under their charge with a spirit of progress and improvement. I might say still more in regard to this matter, but this is enough to show where I stand. I shall be glad to see you hammer away and set the brains of directors to work to devise improvements in the management of fairs regarding industrial features and in affording opportunities for viewing live stock.

AGRICULTURE AND ARTS.

Thanksgiving Day.

The Dominion Government has fixed Thursday, October 18th, as a day of national thanksgiving throughout Canada.

Next Year's Exhibitions.

The following, from the Toronto *Star*, fairly indicates the sense of the press of that city regarding the Industrial Exhibition, and is an emphatic endorsement of the position taken by the FARMER'S ADVOCATE, in our issues of Sept. 15th and Oct. 1st, regarding the Toronto and other shows:

"The report of the committee of manufacturers, recommending certain ways of making the Toronto Industrial Fair more representative of industrial development, has been received by the Association, and will be considered anon. It may be presumed that the suggestions are not of a nature to be dealt with offhand, but we hope they will not be pigeon-holed for the winter.

"The country never was in so prosperous a condition as this year since the Fair was instituted. The weather during the Exhibition was phenomenally fine, rain falling one forenoon only in the two weeks; yet the total receipts were less than last year. It now seems that the profits were greater than last year; but it is not the profits, but the total receipts, that measure the popularity of the show.

"Before the gates are opened for next year's fair, the criticisms passed on this year's fair must be answered, for it is not the press, but the public, that has grown displeased. The newspapers will show every willingness to acquaint the public with particulars of all reforms and improvements that the managers introduce for next year, and we freely concede that the discussion that has taken place will injure the fair—may do it fatal harm—if those who control the organization ignore a widely-expressed public opinion and jog contentedly around the circle they have been wearing smooth for five years.

"The real question is: Must the new fair bring with it new men, or will those who now run it make it new?"

Two Points of Superiority.

Mr. F. D. Coburn, State Secretary of the Kansas Board of Agriculture, writing the FARMER'S ADVOCATE, under date of October 4th, 1900, says:

"I think I have said to you probably on more than one occasion that, besides making one of the most valuable agricultural and live-stock journals issued anywhere, you put into it some of the best-made illustrations used by any similar publication I am acquainted with."

The Place of Dairying in the Evolution of Agriculture.

BY J. M'CAIG, ONTARIO.

It is not less true of agriculture than of other arts, that the story of its progress is the record of simple products succeeded by complex products, as well as of division and specialization of labor in the making of products. The comparative newness of our country, together with the comparative perfection in agricultural and other arts to which it has so suddenly attained, affords opportunities even within the life of the individual man to observe what the nature of agricultural development has been, for it is doubtless true that in many cases the same men have cleared the land that are now making application of the best and highest intelligence to the special arts of the breeding of choice stock or the making of butter. It is quite plain that the earliest and most primitive and elemental phase of agriculture is the raising of grain. The problem of the pioneer is bread. His earliest enterprise, in a wooded area at least, is the exchange of labor for land by cutting down the forests, the use of which land is the growing of wheat and other grains. In prairie countries the order is the same, for the kind of agricultural operation requiring the least demand of capital from the pioneer is the stirring of the virgin soil. It likewise yields the readiest and largest return for the labor invested. This operation is comparatively simple.

But "Man shall not live by bread alone." This is good philosophy even in a material sense. Apart from its use in conserving soil fertility, stock-raising following on grain-growing is a natural and orderly phase of development, as it represents the progress from simple to complex in product making, for whereas in the grain-growing phase grain is an ultimate product, in stock-raising it is only an intermediate and instrumental one, for instead of selling grain as grain, it is sold as beef or mutton or pork. The production of beef, then, to the best advantage evidently requires greater knowledge and versatility than the production of grain alone. In the early stages of the cattle business we find the cow doing duty not as a producer of beef alone, but as a producer of milk. This is not to say that in the present some cows produce beef only and others milk only. We cannot by any art get rid of the integrity or completeness of the cow kind. Every cow carries flesh, and is to a greater or less degree a milk-making machine. It is nevertheless true that the early cow has a general-purpose character that is to a great extent lost through the operation of the principle of selection to single, special, definite, economic ends in later times. In primitive conditions cattle yield butter, beef, or draw the plow; in modern times they do not draw

Conditions.

Onto *Star*, fairly that city regard- and is an emphatic n by the *FARMER'S* 15th and Oct. 1st, shows:

of manufacturers, making the Toronto tive of industrial y the Association, may be presumed nature to be dealt will not be pigeon-

prosperous a con- air was instituted, on was phenome- on only in the two ere less than last, ofits were greater e profits, but the popularity of the

d for next year's s year's fair must s, but the public, e newspapers will nt the public with improvements that xt year, and we n that has taken it fatal harm—if n ignore a widely- jog contentedly a wearing smooth

the new fair bring onow run it make

Priority.

ary of the Kansas FARMER'S ADVOCATE, 1900, says:

probably on more aking one of the ve-stock journals some of the best- milar publication

the Evolution

io.

ure than of other s is the record of plex products, as ation of labor in mparative newness the comparative mer arts to which rds opportunities ividual man to cultural develop- ue that in many the land that are best and highest the breeding of tter. It is quite t primitive and is the raising of er is bread. His ea at least, is the utting down the s the growing of ric countries the of agricultural mand of capital f the virgin soil. largest return for is comparatively

ead alone." This ial sense. Apart ity, stock-raising tural and orderly ents the progress uct making, for ase grain is an g it is only an e, for instead of eef or mutton or hen, to the best ater knowledge n of grain alone. business we find er of beef alone, s not to say that e beef only and any art get rid of the cow kind. a greater or less t is nevertheless general-purpose lost through the ction to single, later times. In butter, beef, or hey do not draw

the plow at all, and the work of providing beef is deputed to certain classes of the cow kind, that of providing milk to others. There has come about a distinct cleavage in cow society on the basis of characteristic tendencies, depending on early circumstances and accentuated by culture and selection. In other words, the law of specialization so universal in all industry takes another striking illustration from the cattle business.

There is one principle that is the spring of all such change. The character of all production is framed so as to give what mankind judges is the greatest reward for the minimum expenditure of labor. The progress of the world is the finding of the fittest means to satisfy the wants of the world. Biologists who dabble in sociology have hit upon the happy idea of considering the whole world, or the whole of society, as an organism, and of representing such society as showing the same features in its evolution as the single individual animal organism does. The animal organism is simple at first, complex later. It develops organs in accordance with its necessity and circumstances. Such change is the evolution of the fittest instrument for a given end. So in society, the division and specialization of labor are the developing of the fittest instruments to given ends. *In short, the economy of nature is economical.* It must be understood, too, that all change that is the outcome of man's effort is as much nature or as truly natural as the changes that the lowliest of the animal kingdom undergo farthest from his influence or direction, for man is as much nature as is the beast. We feel disposed to believe, likewise, that the differentiation that has taken place in the cattle species is economical. But this is another story, and is not intended for a counterblast against the advocates of the dual purpose cow. What a man keeps, whether beef stock, dairy stock, or a compromise between these, resolves itself into a matter of profit and loss based on his circumstances or his experience with any of these.

The important thing to recognize is that, agriculturally speaking, dairying is a complex business if it is conducted as part of the farmer's operations, as it is for the most part. To the primitive task of growing food, and later of growing animals from the foods produced, is added that of the breeding and rearing and managing of a special kind of cow product not produced for herself, but for an ultimate and more specific product to which she is the instrument, viz., milk. Is it not the case that we cannot even stop here, for milk itself is subject to general or special application as for cheese or for butter? Viewed from the standpoint of the evolution of the milk industry, it must appear that butter is the higher product, because it represents a finer and more discriminating selection of milk components than such as is made in the case of cheese; for in the case of butter the casein elements are rejected. Does it not appear, then, that the butter side of the milk industry is the one towards which effort is going to swing? It will be well for those who see in time on which side their bread is buttered.

Besides the warrant that the universal law of specialization gives to this opinion, we have one still more practical and no less important. This is the law of increasing discrimination in the selection of food products by society. Increased fastidiousness and niceness is a constant law of living. Even though cheese includes as much as is included by butter and cheese together as far as food elements are concerned, yet the tendency is undoubtedly to a discriminatory use of these commodities. It is likewise true that the consumption of the finer product, viz., butter, is becoming more general; it is a staple and ordinary commodity on the table of the ordinary workman where it was once a luxury. This heightening of the method of living is a very decided mark of industrial growth, and the overbalancing of rural population by town population, for though want is a feature of the industrialism of the city, and plenty a mark of rural occupation, yet the living of the country is simple, and that of the city mixed, fastidious and complex.

The recognition of the constant operation of these two grand principles, viz., the natural tendency that all development has to specialization, and the growth of the discriminating habit in the choice of foods, should be to the butter man a solid and substantial encouragement for future expansion and concentration of effort. At the same time, he must recognize that his business is a complex one, depending on the careful breeding or selection of the best milk-making stock, the most economical feeding of these, determined not only by the suitability of foods to desired ends, but by relative suitability according to the market fluctuations; and, finally, he must know how to make and put in the public eye the best grades of the commodity possible, for to the best grade of all commodities comes the largest margin of gain, for they represent the greatest skill.

Three Copies Worth One Dollar.

W. G. POTTER, Winkler, Man.:—"I am a subscriber to your paper, and do not think that one year's subscription would have been lost even if a subscriber did not get any more than the last three copies of the *ADVOCATE*. They were worth more than \$1.00 to any man who owns a farm or has five or six head of live stock."

September, 28th, 1900.

STOCK.

Premier Ross and the Dressed-Meat Trade.

In a recent issue of the *Toronto (Ont.) Globe* there appeared what was evidently a very carefully prepared statement by Hon. Geo. W. Ross, Premier of Ontario, regarding the desirability of slaughtering cattle in the Province instead of shipping them alive to Great Britain:—

"Although the dealers have as a rule done well, they have often been put to inconvenience and loss by inadequate shipping facilities, by heavy freight charges, and sometimes by the loss of some of their cattle in transit. Many cattle dealers seem to think that if cattle were slaughtered in Ontario and cold storage provided for conveying the meat to Great Britain the profit would be greater. Even if the meat sold for a trifle less than it did when slaughtered in Great Britain, the saving in freight and insurance charges would fully make up for the difference.

"I cannot say that the Government has fully matured any scheme to aid in establishing the enterprise. An enterprise of this kind can best be managed by private capital. It is a good rule FOR A GOVERNMENT NEVER TO UNDERTAKE WHAT PRIVATE ENTERPRISE CAN BE PROPERLY ENTRUSTED WITH. I would, however, be prepared to consider any proposition from capitalists of good standing which would furnish reasonable assurance of success. I do not think we could grant a bonus for such an enterprise, but it might be worth considering whether we should not guarantee interest, say at 4 per cent. for five years, on capital to be invested up to at least \$250,000. This would place the enterprise beyond the experimental stage. If successful at all, its success would be assured in five years.

"Last year we exported to Great Britain 115,057 cattle, valued at \$8,564,257. If a slaughter house

year for five years, provided the scheme is well thought out and made a success. Canada is eminently a grazing country. There are thousands of acres in Muskoka specially well adapted for sheep and cattle that could be profitably used for stock-raising purposes. We could easily produce three or four times the amount of live stock now raised by our farmers, and I am confident if they were sure of a regular market, such as a large slaughter house would afford, they would raise a much larger number of live stock. Last year we sent to the United States 86,989 head of cattle, valued at an average of \$16.10 per head. These were used as stockers by American farmers and ranchmen. Instead of sending the young cattle to the United States, our farmers should be encouraged to keep them until they were matured, and consequently more profitable, and ultimately sell them to be slaughtered here; besides, there are other advantages, such as furnishing employment to our own people, freight to our railways, labor for those concerned in transportation, outward freight for vessels which would cheapen the return freight, the utilization of the by-products, such as the hides and tallow, and many other sources of income which naturally arise from a large industry.

"As to the danger of creating a monopoly that would control prices, it does not follow that because we establish a slaughter house the present export trade would be abandoned. If it were found more profitable to ship the live stock, they would be shipped accordingly, and the price of cattle would be regulated, as the price of grain is regulated, by the market value of the commodity in the Old World.

"I cannot see why it should not be successful. We see daily fast freight trains with the names of Armour and Swift passing through Canada bearing the produce of the United States to the British market. Why should we not see freight trains bearing the name of some Canadian company passing over our own lines bearing Canadian produce to the Atlantic seaports? What Americans have accomplished surely Canadians need not shrink from. I see no reason why we should send our cattle to be slaughtered abroad any more than we should send our logs to be sawed abroad, providing we can by our own capital advance them a stage for the actual use of the consumer."

[EDITORIAL NOTE.—The number of cattle (115,000) given above by Mr. Ross as exported last year to Great Britain probably includes those from all Canada (counting in Manitoba and the Northwest) and not from Ontario alone, as we notice that is the number given in the last Dominion Statistical Year-book issued by the Ottawa Government. Mr. Ross is right in assuming that Canada can produce as good an article in beef as any other country, but, as was pointed out in our last issue, our beef stock has been deteriorating and does not now top the British market. This has been due to the development of the dairy industry and the spread of dairy cattle, the use of immature sires and too few good sires of the beef breeds. What the country needs is not less high-class dairy stock, but more first-rate beef stock, because there is ample room in the vast and fertile areas of Canada for both. We agree with Mr. Ross that it would be a better policy for the Canadian farmer to finish his cattle rather than sell stockers to United States feeders.

Capitalists before launching into the dressed-meat industry will need to feel reasonably sure of a regular supply of good beeves in addition to what are likely to go forward to the Old Country alive, as it will probably be deemed profitable to continue that trade. Large numbers of the very best cattle that come into the Chicago and other American markets still go to Britain on the hoof. The promoters of a Canadian dressed-meat enterprise must also be prepared to compete with the immense and powerful corporations engaged in this business at Chicago and St. Louis. Some years ago a Toronto firm tried it on a small scale, but the results were most disappointing. There is room for a great industry here, but it will take time, capital and enterprise to develop. The flourishing condition of agriculture and other Canadian industries doubtless suggests the idea that the present is an auspicious time to promote the dressed-meat enterprise.]

The Condition in which Sheep Should be Exhibited.

At a recent meeting of the Committee of the Irish Cattle Traders and Stock-owners' Association, the president, Mr. William Field, M.P., said that it had been brought under his notice recently at Ball's Bridge that an esteemed member of the Association had exhibited rams and sheep with an unshorn patch of wool left on each. He thought this was a practice that ought to be insisted on at all shows where sheep are exhibited, as it enabled both judges and spectators to estimate the amount of wool which might be expected from any particular fleece, and he regarded this as a matter of much importance on account of the amount and quality of the wool forming a large element in the market value of sheep. He was convinced that the enforcement of the practice at shows would conduce to honest



THE LATE GARRETT F. FRANKLAND.

Ex-Alderman G. F. Frankland, who was one of the pioneers in the exportation of beef cattle from Canada to Great Britain, died at his late residence, in Toronto, Oct. 2nd, aged 66 years. He was a native of Lancashire, England, and emigrated in 1854 to Toronto, where he started business as a butcher. He was a good judge of a beast, frequently officiating in that capacity at Fat Stock Shows, and with an eloquent tongue and facile pen, in season and out of season he advocated the breeding of high-class cattle and other stock. In 1874 he started in the exportation of live stock. In that year he sent to Montreal 270 head of fat cattle. When Sir Hugh Allan, of the Allan Steamship Co., saw the number of cattle, he declared it would be impossible to put so many aboard one vessel, but the same ship has since carried more than double the number. Mr. Frankland crossed the ocean nearly one hundred times, and for many years was widely known as the "Cattle King of Canada."

would command even half the cattle shipped to Great Britain, it would mean nearly 200 head of cattle per day for 300 days in the year. Even the slaughtering of 100 cattle per day would be a pretty substantial industry for the Province. Besides, we exported 458,720 sheep. Provision could be made for slaughtering these also in Ontario, and sending the mutton abroad, as is done by New Zealand and Australia at the present time.

"The people of Great Britain would certainly purchase beef or mutton if sent by cold storage in the manner you suggested. In 1898 Great Britain imported 347,291,952 pounds of fresh beef and 371,168,112 pounds of mutton: of the beef, 257,819,072 pounds were imported from the United States, and 215,447,456 pounds of mutton were imported from New Zealand and Australia and the Argentine Republic. We can surely produce as good an article as either the United States or Australasia, and thus secure our full share of the British market. I think there is no danger of a market if meat of a proper quality is furnished.

"I think it would be to the advantage of the Province to expend as large a sum as \$10,000 per

uniformity of shearing, which was hardly the case at present, and he felt certain that if such a rule were enforced there could be more accurate judging, and in that way enterprising and intelligent stock-owners would be encouraged to propagate from the very best class of animals—wool-growing as well as meat-producing—to the great advantage of the sheep trade of the country. Attention was called to another objectionable feature in the showing of sheep, namely, the frequent use of coloring pigments in oil on the wool of certain breeds, as the practice prevented animals from being shown in their true and natural condition, the latter being obviously what is desirable in the interests of fair dealing.

P. E. Island Exhibition.

This exhibition, which was held from 24th to 28th September, was blessed with the best of weather and was well attended. It is freely admitted that it was the best show ever held on the Island, and in most all lines fairly represented the capabilities of this Province along the lines of stock-raising, dairying, fruit-growing, and the production of general farm produce.

The exhibition building was nicely decorated with flags, which, together with the large and artistic display made by some of our leading merchants, and the beautifully arranged paintings and photos that covered much of the wall space in the galleries, and also the very large and tastefully arranged show of the ladies' fancywork, all combined to make the interior of the building very bright and attractive. The very large exhibit from the Nappan Exp. Farm, containing samples of nearly all the kinds of grain, grasses, roots, vegetables and fruits which are being experimented with there, was a great attraction to visitors. It was very artistically arranged by Mr. Saxby Blair, the horticulturist at the Farm, who had charts placed on the exhibit illustrating the benefit of spraying fruit trees, and giving information as to the kinds of grain and other farm produce that had done best in their experiments for a number of years; also figures showing the great increase and the amount of our exports along dairy and poultry lines. The show of cheese was large; of butter, not so large. Grain made a good showing, but roots, vegetables and garden produce were a smaller show.

STOCK.

Horses were a large show, over 200 being on exhibition. They were one of the great features of the exhibition, all classes and kinds being represented by good specimens.

In the class of heavy draft stallions there were three competitors: McQueen, owned by Joseph Stanley, Charlottetown; Crown Rights, imported from England by the P. E. I. Government last spring and now owned by McKinley Bros., Charlottetown; and Knight of Ardgowan, imported from Scotland and now owned by J. W. Calbeck, Augustine Cove. These were a good lot of draft sires, and were placed as above by the judge. Some other good judges differed with this finding, and thought the last horse should have had a better place in the prize list. In the class of draft stallions not eligible for registration there were some fine ones. The red ticket went to Lucky Jack, by Lucky Lad, a horse that showed up with the best. He is almost within the pale for registration. The blue ticket went to a gray sired by Old Barrister. In the other classes for mares and foals and young stock there were many good ones, the principal prize-takers being William Livingston, William Crumps, John Newson, Thos. Bears. For pair of draft horses not less than 1,300 lbs., J. A. McMillan got 1st, and William Clark, Wiltshire, 2nd. The general purpose class was well filled with a good serviceable lot of young and older stock.

Standard-breds and others.—For stallion three years old and upwards, H. C. Lydiard, Kentville, N. S., took 1st with a splendid animal of the best trotting style and conformation. The 2nd went to Reddin Bros., city, and the 3rd to John McPhee, Preetown, for a horse sired by Parkside. The last horse trotted in the 228 class at the race and came in a good 3rd there also. In the carriage class there was a great array of splendid movers. John O'Brien, Bonshaw, got 1st in the four-year-old stallion class, and in the two-year-old, D. W. White, North River, got 1st. Duncan R. Scott, North River, took 1st in the yearling class. A very nice filly, two years old, owned by D. C. McKinley, North River, took 1st in her class.

Standard-breds with certificate from American Trotting Register.—Filly, two years old, John Robertson, North River, took 1st. In the year-old class, John Mooreside, North River, got 1st, and for mare and foal, William Miller, Marshfield, got the red ticket.

The saddle horses were a good class and showed good training, and went along very smoothly at the different gaits at which they were tried.

There were a few good Hackneys shown from Nova Scotia. Kilwick Fireaway 3308, registered in the Hackney Stud Book, England, showed well in his ten-year-old form. He had the high knee action so much admired in carriage horses to-day. He, together with two other good ones, were shown by A. R. McKay, Pictou Co., N. S. William Sutherland, of the same place, also showed some good ones in this class.

Dr. Reid, of Guelph, who has judged the horses at this exhibition for a number of years, gave as his opinion that this was the best show of horses he had ever judged here.

CATTLE.

The show in cattle was the largest and, in many respects, the best that ever were got together on the Island. Some of the best cattle from Nova Scotia were here for the first time and made a strong feature in our show, both in beef and dairy lines. In

Shorthorns, Robert the Bruce, owned by C. A. Archibald, of Truro, N. S., took 1st, and Silver Chief had to be content with 2nd. Henry Lane, Mount Mellick, got 3rd. These were three very fine specimens of beefing cattle, and were brought out in fine show condition. The two first are half-brothers, Mr. Archibald's bull being a year the younger of the two. There were other good ones in this class that were not shown in good enough flesh to get in the inner circle. The other prizes in this class were divided between those mentioned above and Albert Boswell, Edward Wood and Lincoln Irving. C. A. Archibald took 1st for herd, and F. G. Boyver 2nd.

Herefords.—W. W. Black showed a draft from his splendid herd of Herefords, and got all the prizes without competition. These cattle were much admired at this show, especially the splendid bull, Sir Horace, at the head of his herd, which carried a great wealth of flesh.

Polled Angus and Galloways were shown together in the same class. John Richards, of Bideford, got 1st with his grand five-year-old bull, Bonnie Lad, that heads his fine herd. This is a typical Aberdeen-Angus bull and is of good size, weighing at present 2,350 pounds. Mr. Richards had some cows and heifers that would show well anywhere. Senator Ferguson's herd of Galloways were in this competition and carried off quite a few of the prizes.

Ayrshires.—This breed was out in large numbers. They are general favorites with the milkmen and the patrons of the cheese factories, as they are considered good deep milkers, with milk of good average quality, and also considered to be of vigorous constitution and good foragers. Some of the individuals in the showing were of the fashionable type. C. A. Archibald's two-year-old bull, Howie's Stamp, bred by James Howie, Kilmarnock, Scotland, sired by Topsy of Hillhouse, is a bull of grand style and quality. Easton Bros., Charlottetown Royalty, carried off 1st prize in the aged class with their aged bull, Dainty Lad, which is allowed by all to be a grand dairy sire. The other prizes in this section went to James Shaw, Winsloe, and William Miller, Marshfield. First in two-year-old class went to Archibald's Howie's Stamp, and in year-old class F. S. Black took 1st with a nice smooth yearling showing good breeding and fine dairy qualities. Mr. Black was also 1st with bull calf and cow in milk, and C. A. Archibald got the red ticket for two-year-old heifer in milk or calf. The other prizes in this class were divided between William Miller, James Shaw, J. Ferguson, Donald McMillan, Robert Longworth, and those mentioned above.

Jerseys were a pretty numerous class, and some good specimens were shown; but many of them had a somewhat delicate appearance, seeming to lack vigorous constitution. Among the best in this class was an aged bull shown by Alex McPhail, Argyle Shore, which took 1st. For bull two years old, James Essory, Union Road, got the red ticket, and for yearling bull the red ticket went to Peter Adams, Pictou County, N. S. John Wood, James Ropers, William Miller, Wm. Clark, Thomas F. Guard and G. W. Lightizer were also prominent in the prize list in this class.

Guernseys were not a large class, but they were a good serviceable lot, of gilt-edged breeding. E. R. Brow, Charlottetown, took first in aged bull class with Nerius, over McMillan & Dawson's Royal Sovereign, which beat him at Halifax. McMillan & Dawson got 1st for two-year-old bull, and Brow 1st for year-old and calf. In cows in milk the honors were pretty evenly divided between the above-named breeders, who got all there was between them.

Holsteins.—Logan Bros., of Amherst, N. S., showed a fine herd of this breed, of good milking qualities. The bull at the head of their herd was a grand dairy sire, and some of the cows, notably the one that won sweepstakes in the milking competition at Halifax, showed excellent milking qualities. They got all but one of the prizes, and had very little competition.

SHEEP.

The show in this class was very numerous, and the principal breeds were all represented by excellent specimens. The old breeders, such as William Clark (Wiltshire), Albert Boswell (Pownall), John Tweedy (Gallas Point), F. G. Boyver (Georgetown), Henry Lane (Mount Mellick), J. C. Irving (Cherry Valley), and Robert Furness (Vernon River Bridge), and some others, had good exhibits. In **Leicesters,** Henry Lane, A. Boswell and Wm. Clark got most all the prizes. In the **Cotswold** class, John Tweedy's splendid exhibit had a walkover. In **Lincolns,** F. G. Boyver, A. Boswell and J. C. Irving divided the honors.

Southdowns were a small class, and Robert Furness got all the prizes.

Shropshires were a large class, and besides the Island sheep we had a small flock from Pictou, owned by A. McPherson, Rocklin. Three of this flock were imported from England last spring by John Campbell, Woodville, Ont. They were shown in the very pink of condition, and were said to be the best-looking Shrops ever shown in the Maritime

Provinces. McPherson got 1st for aged ram and aged ewes. A. Boswell got a large share of the prizes. Other prize-takers were A. H. Boswell, John Ferguson, and D. P. Irving.

Oxfords were shown by F. S. Black (Amherst, N. S.), Silas Lane (Cherry Valley), and Edwin Edwards (Wiltshire). Most of the prizes went to the two first named.

SWINE.

In this class the show was large and the quality excellent.

Yorkshires.—J. W. Calbeck showed a large number of Yorkshires and got most of the prizes. E. Edwards had some good ones that won some prizes in this class.

Berkshires were shown by R. McPhail (New Haven), H. Lane, R. Douglass (Kensington), R. Drake (Cornwall), James Roper (Charlottetown), and some others; and the prizes were pretty evenly divided.

Tamworths were shown by David Reid (Victoria Cross), James Essory (Union Road), James Roper, and H. F. Wright (Cherry Valley). These made a very strong class. Essory's aged boar was a grand specimen of the long, deep-sided bacon hog. David Reid's was a splendid animal, with great length and depth, but losing a little in width at the hams. Wright's pig, though placed 1st, was not so nice a looker, being rather rougher in the make-up than the others, but nevertheless a good one. Essory got 2nd and Reid 3rd in the aged boar class. For aged sow, David Reid got 1st and 2nd, and 1st for young pair.

NOTES.

Daniel Drummond, Myrtle, Ont., judged the dairy cattle and pigs, and James Tolton, of Walkerton, Ont., judged the beef cattle and sheep. Both gave good satisfaction in their work, and if they failed to please everybody it was not because they did not try to do their work right.

Among the visitors from abroad were H. Wade, of Toronto; John I. Hobson, Guelph, Ont.; R. Robertson, Supt. Exp. Farm, Nappan, N. S.; Saxby Blair, Horticulturist at Nappan; Harry Mitchell, Supt. of Dairying for N. B.; T. J. Dillon, the noted dairyman and cheese exporter. There was a large number of visitors from the other Maritime Provinces, and many sales were made to them by P. E. Island exhibitors.

The exhibit of fruit was the largest and best ever seen here. There were some fine collections of apples from Nova Scotia, which took 1st place; but in plums the Island exhibitors came out ahead. Robert Starr, of Wolfville, N. S., was the judge.

Bran as Hog Food.

Regardless of claims made by the chemist for the high feeding value of wheat bran, because of its albuminoid content, the writer has many times been disappointed at the results when fed to hogs. Even coarse shorts given in abundance fail to produce corresponding gains in weight. Some time ago an American Experiment Station made a test with wheat bran as compared with corn for feeding hogs. Twelve pigs were used, divided into four uniform lots.

The pigs varied in weight from 45 lbs. to 50 lbs. The first lot of these pigs were fed a ration of fermented or sour bran; the second lot was given untreated bran; the third lot had bran and corn meal; and the fourth lot was fed corn meal. The pigs were weighed each week to the end of the experiment. The above ration was fed for ninety-nine days, and then all the lots were fed for twenty-one days more on corn meal.

During the first period the bran-fed lots did not gain very well. They took on fat and growth very slowly. The average daily gain for the 90 days was, for the fermented bran lot, .61 lb.; untreated bran lot, .70; bran and corn meal lot, .76; and for the corn meal lot, 1.08. This was a decided gain in favor of the corn meal, and showed that souring bran had no effect on its digestibility and feeding value.

The second period brought out some points of interest. When corn meal was used as the entire ration, the lot that had in the previous period been fed fermented bran with a daily gain of but .61 lb. now increased at the rate of 1.44 lbs. each day. Likewise, the lot fed the untreated bran increased from .70 lb. as a daily gain to 1.24 lbs. The corn and bran lot increased from .76 lb. to .88 lb. daily gain; and the corn meal lot increased from 1.08 lbs. to 1.38 lbs. daily gain. As long as bran was fed the pigs, the daily gain and increase was small. This was the case even when fed in connection with corn meal. Substantial growth took place during the whole feeding period with the corn meal fed lot.

The experiment clearly shows that bran is desirable as a food for pigs under no circumstances. It is too coarse, and contains too much fiber to be profitably and economically used. The assertion that souring or fermenting bran greatly increases its value does not stand the test in this experiment. In fact, little is gained by fermenting, for during the period a difference of but forty cents was made in favor of the fermented over untreated bran. While there was a profit of \$4.61 in feeding bran to pigs, the profit obtained by feeding corn meal was \$8.91, or a difference of \$4.33. This is too much difference to be a case of error, and it shows that corn meal is superior to bran as a pig food, and that the latter is for the purpose undesirable and unsatisfactory.

Our Scottish Letter.

The prevailing topic of conversation amongst our stock-owners here is not a pleasant one. More than six months ago an outbreak of

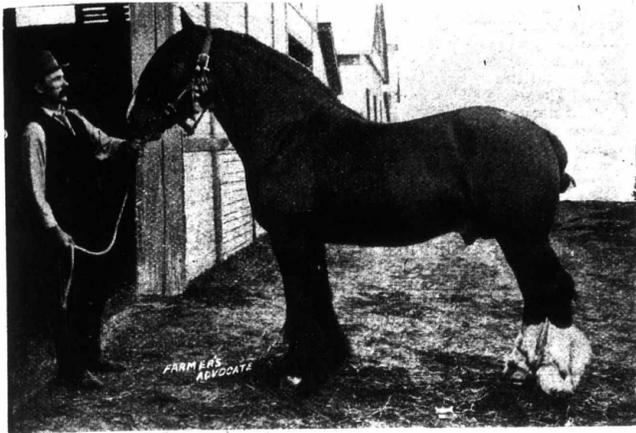
FOOT-AND-MOUTH DISEASE

was reported from Norfolk, and the Board of Agriculture foolishly, as some think, allowed the cattle first attacked to live as they were through the worst of the disease before it was detected. Some time after, another outbreak was reported in the same county, and on this occasion the

other cattle. Where calves are fed off fat at three or four months old, as is the case in some parts of England, the black calves got by an Aberdeen-Angus bull out of ordinary cross-cows have sold as high as £5 a head. At one of the sales, Mr. Schroeter's, down in Sussex, a local fancier paid £19 for a steer calf which he means to feed for the Christmas shows, and £40 was paid for a heifer calf being nursed by her dam. The absence of horns and the high prices given by butchers for these black calves per cwt. make it certain that the breeding area for them will extend.

THE LONGHORNS.

A strenuous effort is being made to resuscitate the famous Longhorn breed of cattle, and the second volume of a new series of its herdbook has been published. About twenty years ago, or it may be more, the first attempt to found a herdbook for them was abandoned. The renewed attempt is highly commendable, but it may be doubted whether any good purpose is served by trying to make this breed popular. Mr. Westman, the Secretary, who is responsible for the recent publication, makes out a fairly good case for them, and certainly shows that as cheesemaking cows they are superior to the Shorthorn, but their hideous horns and hard, unfattenable carcasses are great drawbacks in these days when the demand is all for early maturity. Doubtless, as the breed on which the immortal Bakewell first experimented, one would not like to see the Longhorn extinguished, and they may linger long, but it does not appear to be sound business to breed cattle of their type at this time "SCOTLAND YET."



BELSHAZZAR 13855.

Imported Shire stallion. First prize and sweepstakes at Toronto Industrial, 1900, and at London Western, 1899 and 1900.

OWNED BY MESSRS. HAWDEN & McDONELL, EXETER, ONT.

slaughter powers possessed by the Board were enforced with vigor. After a period had elapsed, during which the local authorities grumbled sorely about the restrictions, these were removed, and the cattle and sheep trade resumed its normal conditions. No more was heard of the disease until some weeks ago, when an outbreak was reported in the district of Holderness, near Hull, in Yorkshire. Once more the strictest measures were taken, and there is no further account of the disease in that quarter. But scarcely had the country time to recover from this scare, when an outbreak was announced in the Vale of Cluyd, in North Wales, right across England from Holderness, and hardly was it in hand when a further outbreak was reported in Wiltshire, and now, one week from to-day, the officials of the Board of Agriculture declared the disease from which lambs in Perthshire were affected to be the dreaded murrain, and to-day (Friday, 28th Sept.), for the first time for seventeen years, no market is being held in Perth, and the whole question of what is to be done is being considered by the leading lights of the Board of Agriculture in London. In connection with the Perth report, the diagnosis of the official experts is being challenged, and there is little doubt that there is some ground for suspending judgment. In the meantime, after the second outbreak in Norfolk, cattle affected with the disease were found to be coming in from Argentine ports, and the slaughtering ports of this country were shut against them. The Argentine authorities have now retaliated and closed the ports of that country to British cattle. This will have an injurious effect on the sales of pedigreed stock, which are due in ten days, and meanwhile the dislocation of trade in Perth and the north is serious. It will be most unfortunate if the diagnosis of the officials is pronounced incorrect, but it would be more unfortunate to have allowed foot-and-mouth disease to pass unchecked. It is better in a matter of this kind to be over-stringent than too lenient.

ABERDEEN-ANGUS SALES.

The series of sales of Aberdeen-Angus cattle conducted by Messrs. Macdonald, Fraser & Co. (Ltd.) has just been concluded. Three sales were held in the north of Scotland, and an equal number in the south of England. It is noteworthy that the best prices, both north and south, have been given by a new patron of the breed, and that his headquarters are in Ayrshire, in the heart of the great dairying districts of Scotland. Mr. Kennedy, of Doonholm, Ayr, is the gentleman in question, and he has made an excellent start, buying good cattle of good breeding and not overfed. He has been guided in his purchases by Mr. Ralston, Glamis, the agent of Lord Strathmore, whose herd is one of the best in Scotland. Generally trade at these sales has been satisfactory, good averages being realized, and some idea of the extent to which the breed is now cultivated in districts widely apart may be inferred from the fact that these sales have this week been held in Buckingham, Sussex, and Stafford, and, with the exception of one or two animals, all of those sold were purchased by buyers in England. Many landed gentlemen find these cattle to thrive well in the south and along the downs, and although the calves at first seem small, the prices given for them by the butchers show that per cwt. or stone they sell dearer than any

business to breed cattle of their type at this time of day.

Mating the Ewes.

Profit in sheep-breeding largely hinges on the proper mating of the ewes at this season of the year. Firstly, there must be no excessive increasing of the flocks, no overdoing of the fields with in-lamb ewes as winter comes on, and crowding later on with sheep and lambs. Secondly, all ewes mated ought to be in sound and thriving condition. Thirdly, the whole flock ought to be young, or, rather, not old. As regards over-stocking the ground, it is very tempting to increase our flocks, as they pay better than most other stock, and so long as there be room for increase without overcrowding, the larger flocks are decidedly advised. Yonder 20-acre unprofitable arable field may, perhaps, be put down to pasture, and will allow of a score more ewes being added to the regular breeding flock, but unless wider runs are given in harmony with the increase of the flock, no profit will be made; that is, of course, if the fields have carried an average of stock before. It is not practicable, as a rule, through decreasing other stock to increase sheep much, because ovines must not form the sole stock of the fields, nor that by a good deal. Neither may sheep-breeding to a profit be conducted if the flocks to which the rams are introduced are not sound in body or limb.

That ever-to-be-dreaded disease, foot-rot, has robbed many a flockmaster very sorely. And farmers have themselves to blame many a time. I have seen actually halty rams turned with sound flocks of ewes. The disease is contagious, therefore only needs wet weather to assist it to run through the whole flock, for that common foot-rot is very contagious is an accepted fact. No flock, therefore, is fit to mate that is not free from the disease, and no ram fit to use that is not sound on his feet. Else it is seen when the ewes get heavy in lamb the disease rages to a disastrous degree, for you may not dress the feet much at that stage of the ewe's pregnancy, lest you cause premature birth. And a dozen more ailments I could name had I space, that sheep are subject to, and which should be held if ruling sufficient to demand the culling of the sufferers from the breeding flocks.

Mating too old or too young animals is a common practice, but it is not attended with profit. The ewe is within the proper age to breed from when a yearling or one-shear year, until the mouth is full, as shepherds term it—that is, until there be eight broad incisor teeth put up. At the latter age she should be culled, because her next movement will

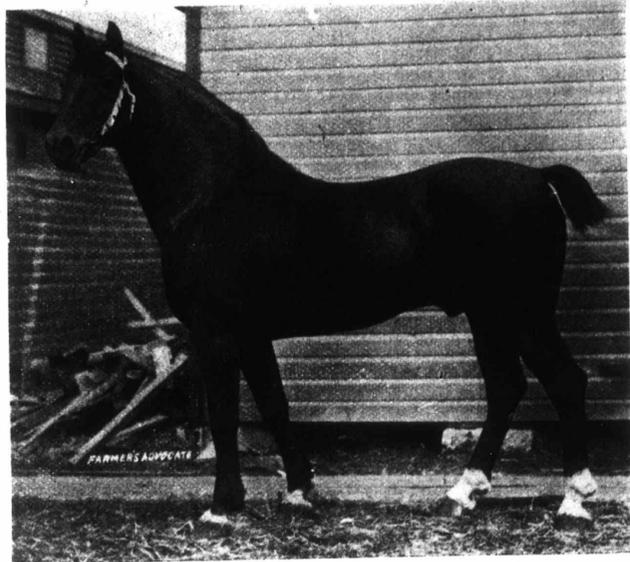
be downhill. The yearling has at mating time two full-sized incisors and six lamb's teeth in the front of the mouth. To breed the best lambs it is essential that ewes be not too old, not too young, yet how often do we see such mated as have teeth wide apart, or in some instances with scarcely any teeth at all.

Then there is the over-impatient flockmaster, who desires to get rich in a hurry. He cannot even wait for the lambs to pass the stage of lambhood before he must needs begin to breed from them. So they are mated when little over six months old, and bring lambs in their yearling season. But there are great losses, taking one year with another. There are bad yearning times, dead lambs, abortion, and puny young lambs brought forth, which, although alive, hardly survive long, because of lack of milk and a bad nurse generally. And even at best the lambs are not fit to bring into the breeding flock at any time, as they do not make average specimens of their race, not one out of twenty. The greatest drawback, however, I have found in this early breeding is the loss of, now and then, the young mother, a drawback which would not befall were it not that mating had been conducted at too immature an age.

While the ram is with the ewes they should be kept in quite a thriving state, but I am not in favor of providing over-stimulating diet. In fact, I am against flushing in its true sense. So long as grass, "seeds," clovers, rape, mustard, and such-like go, the ewe's runs cannot be too fresh and fruitful, but it is better to draw the line at trough food, such as corn and cake. The latter food is over-stimulating, over-fattening, and is sure to be missed afterwards, because you may not continue forcing your flocks at high pressure all through until lambing time. And if you flush and do not keep up the stimulating rations to a considerable extent, your ewes become very poor against yearning time, so that many a mishap and many a complaint befalls, abortion among others, that might have been prevented if more rational feeding had been practised all through. Wherefore it appears that flushing ewes at this season while with the ram does not lead to profit. A good deal more has to be said on profitable sheep-breeding, but must stand over for the present.—*Novus Homo, in Stock-breeder and Farmer.*

Fall Colts Preferred.

Fall colts can be successfully raised if one is prepared to care for them in the right manner. True enough, there are few fall colts raised in this part of the country. I will speak from what experience I have had, and that isn't much. I have raised two fall colts, and I like them better than the spring, for the reason that your mares don't have to work so hard as they do in the spring, and the flies don't have as long to torture the little colts while they are young. Then the next spring when grass comes the colts are a good age to wean and turn out. I think it a good plan to have two or more, so they will be company for each other. I let mine run with the mares all winter, stabling and feeding grain night and morning. I didn't have to work my mares while they were suckling, but better work



PRINCE DANEGELT.

Hackney stallion. First prize and sweepstakes, Winnipeg Industrial Exhibition, 1900. OWNED BY J. T. MOONEY, WAWANESA, MAN.

them in the fall and in the spring and raise colts, too, at the same time. I don't think a brood mare should be worked any during the time the colt is following her, as I think both the colt and mother will do better if not worked, unless it be some light work. I think the greatest reason that there are not more fall colts raised than there are, is because the majority have not tried it, and don't know the advantages of it. J. L. GRIFFIN.

Selection of a Ram.

As the season for mating the flock of breeding ewes in the hands of the average Canadian farmer with a suitable ram for the next year's crop of lambs is the month of October, the following well-considered hints, contributed by an experienced breeder to the *Live Stock Journal*, may be safely commended and accepted:

"No matter what breed is used, there are certain points which ought to be thoroughly looked into before buying a ram. As a preliminary remark, it is curious to notice how seriously buyers take the get-up or dressing of rams. The head is the principal feature which shows what is called character, and ought, therefore, to be thoroughly characteristic of the breed, whether black or white, horned or unhorned, covered or bare of wool. A bold, masculine, and not too small head, with ears of proper length, jaws even, and clean under the throat. No feature is more important to a breeder, for the head will sell or throw away a sheep sooner than anything else. The neck is of great importance, and should be thick, short, and nicely graduated with the shoulders and bosom. It would be too much to review in this connection all the points of a sheep, but they may be condensed into a few inclusive expressions. Thus the ram should be thick in flesh and in outline, massive, and large. He should stand up well and boldly on his legs, and his hocks should be strong and well formed. He should have a leg at each corner of a square frame. He should carry a thick, heavy fleece of the right character, not too long nor too short. The wool should be fine in the fiber, and set on a clean and well-tinted skin or pelt. Every part of a sheep can be criticised, and it is interesting to hear them discussed by good judges. Even after passing a creditable examination, a remark from a good judge will seem as a sort of revelation, bringing prominently forward some feature which had escaped attention, such as a brown or black spot in the wool, a bowed-out joint, or a bad coat. Even judges sometimes pass a point of this kind without noticing it, and happy is the buyer who, when he brings home his purchase, finds it entirely right in all respects. Shepherds are excellent judges, and soon find out the weak point when they begin to hunt for faults. It is difficult to find a perfect ram, neither is it necessary for ordinary purposes. The price runs up in the case of any well-bred ram which can stand the higher criticism of breeders. On the other hand, useful rams can be purchased for £5, quite good enough for ordinary flocks."

Wanted---A Chance to View Live Stock.

The complaint of Mr. S. H. Janes, of Toronto, published in our last issue, regarding the want of proper facilities for viewing the live stock exhibits at the exhibitions, has been repeatedly brought before public attention in the *FARMER'S ADVOCATE*. The following from the *Breeders' Gazette* shows the result of attention to the subject at the recent Minnesota State Fair:

"Never did the skill of American stock breeders receive more adequate recognition at the hands of the public than in Minnesota last week. For once the patrons of the cattle show were provided with as comfortable accommodations as those furnished in the interest of the sports of the race course, and how the people did appreciate it! At times the seating capacity of the big tent was taxed to the limit. If Minnesota's experience last week affords any criterion, it seems clear that State-fair managers can not too soon provide more generous prizes for breeding animals and furnish at the same time suitable pavilions for the judging. The public can be interested. That is certain. At Hamline they sat for hours watching the awarding committees at work. They thronged the arena for two days while the Hereford sale was progressing. They gathered in crowds beneath the canvas when a public discussion—a sort of farmers' institute, as it were—was precipitated by the announcement of the reason for awards given by the judges in the class for feeder's stock bred in Minnesota. Prof. Shaw opened this ball, followed by Craig and Carlyle, and for an hour the subject of good breeding and correct feeding was intelligently and profitably considered. There are things besides balloon ascensions and 'merry-go-rounds' in which farmers can be interested, if fair managers would only provide them."

Apples as Feed for Stock.

There is a large quantity of fallen apples in Canadian orchards this season, and as a large proportion of these are of inferior quality, or badly bruised, they cannot be kept for winter use. Where facilities are available for canning or evaporating fruit, a considerable portion of fallen apples may be utilized in those ways, and by making cider from them, but where it is not practicable to make such disposition of them, they may safely with advantage be fed in moderation to milking cows and young cattle, in connection with some dry feed, as chaff or bran, and to hogs as a portion of their diet. Fed at the rate of half a bushel per day in two feeds to cows, the milk flow will be considerably increased, and the thrift of the animals promoted. While apples fed thus in moderation to cows increases their milk, we have known cases where, from having access to an unlimited supply, the milk has been almost entirely dried up. Frozen apples are unsafe for feed.

Service Bulls.

In order that a stock bull shall be, and continue to be, active and useful as a sire, much depends upon the treatment he receives in his first years, and, indeed, throughout his life or the term of service. For the first eight months no better conditions can be furnished him than the run of a good box stall or large shed, the privilege of sucking his mother's milk or that of a nurse cow, and a plentiful supply of bran and ground oats and corn or peas, fed dry, or slightly damped, upon cut hay or chaff, ensilage or dry cornstalks, together with a liberal allowance of green clover and other soiling crops in season, and of well-cured, early-cut hay, and sliced roots when the season for green crops is passed. A box stall is the best quarters for a bull at any age, and the larger the better, as long as he remains quiet, and with judicious treatment and handling, bulls of the beef breeds rarely get cross. Those of the dairy breeds, being as a rule of more nervous temperament, are more liable to get mischievous, and even vicious, unless carefully handled. They should be trained to being handled, and haltered when quite young, so that they may never learn to know their strength, and should at all times be treated with kindness and firmness. It is not well to play with them or give them unnecessary length of line when leading, and a nose ring should be put in before the bull is a year old and before he is used for service. The mistake of allowing bulls to serve at too young an age is far too generally made, and doubtless accounts for many of them becoming slow servers or unsure later on. In no case should a bull be used before he is a year old, and then sparingly. He should not be allowed to serve more than two or three in a week before he is 14 months old, and in no case should be permitted more than one service during the heat of each cow. It is an entirely unnecessary drain on the system of the bull to allow two or more services, and he will be just as sure a calf-getter from the first, and will continue to be sure longer if limited in each case to one. The question of exercise is important, and is not so easily provided for as one could wish. As a rule, the run of a box stall, with a small yard enclosed by a strong, close fence, is the best arrangement that can be made. Some have adopted, and strongly recommend, exercising the bull on a ring—that is, by stretching a strong wire, with a wire on it, between two posts, and with a rope or chain from the bull's ring to the ring on the wire tether him so that he may walk back and forward for an hour or two each day. Others recommend a contrivance similar to a clothes reel, which whirls around, the bull being tied to it overhead by means of a rope from his ring and allowed to take his exercise in a circle. Still others give the bull his exercise on a tread power, utilizing him to run the cream separator, churn, or cutting box. If none of these devices commend themselves, there is the alternative of a run in the barnyard for an hour or two each day in winter, and in a paddock in summer. Attention should be given the bull's feet to prevent their becoming overgrown, which has a tendency to cause the legs to grow crooked, and hinders the animal from walking as freely and naturally as he should. By the occasional use of a fine saw, a sharp chisel, and a blacksmith's rasp, the hoofs can be kept in good shape. The bull's rations should at all times consist of a mixture of grains in which oats are the principal, and with the addition of a liberal proportion of bran, roots in season, and good hay, he may be kept in healthy and vigorous condition without being made too fat for prompt service, and in the best form for siring healthy progeny.

Autumn Foals.

It was my good fortune one year to secure the services of a young Canadian as general farm help. He was an excellent caretaker of stock; in fact, an all-round good hand. He was strongly attached to his own way, but that did not interfere with my interests, and was a decided benefit. I gave him unlimited latitude in regard to exercising his judgment. That fall I had two mares that foaled late in September. I was dubious at the prospect of caring for fall colts, and expressed my doubts to the young man. He offered to take entire charge of the four equines, with the understanding that I was not to interfere in any way with his management. I had faith in his ability, and consented, merely stipulating for the privilege to note proceedings and take pointers for future use. He repaired an old stable, making it weatherproof and comfortable for his charges during the approaching cold months. This work he did at odd times, not encroaching on his regular working hours. While the fall pasture continued good he kept the dams and progeny in the fields, stabling them at night and feeding liberally of oats and well-cured hay. When taken from the pasture for the winter he gave them extra care. The colts were tied by their dams nights, and not allowed nourishment from the mother, only through the day. I had an abundance of roots that winter, among them carrots, and I also had a good supply of apples. Each noon he filled the feed boxes with cut apples and carrots, with a sprinkling of salt. At six weeks the colts ate freely of oats, and soon began to nibble and relish the "extras" given the mothers. The stable was kept immaculate. The grooming those horses received would have reflected credit on a hostler in an English home of royalty. The first of March he began weaning the colts. They were gentle and well halter-broken. He first led them separately and then together to

water, and on alternate days they were allowed to exercise in a yard while the mothers remained in the stable. They were worked occasionally, but always received the best of care. The next September those colts were the admiration of all my neighbors, and were voted a decided success. I considered the education I had received from my "ideal" help on the care of horses and his conscientious endeavors to earn his salary at all times worth considerable to me, so I presented him with one of the colts. Now, don't all speak at once for the young man's address. He married my daughter, and I gave her the other colt as a wedding present. —Carl C. Congdon, in *Iowa Homestead*.

A Losing Game Persisted In.

Word comes from Toronto market that of the great number of lambs coming forward recently, not nine per cent. are ewes and wethers, which means, in other words, that over ninety per cent. of the thousands of lambs marketed in the chief stock yards of Canada at this season are uncastrated males. Why it should be so is a mystery to us and to many others. The result is, that as the cold weather approaches the lambs become a nuisance on the farms where they are raised, and must be gotten rid of just at a time when every other like farmer is sending his forward. Even if they could be kept separate from the ewes without difficulty, their flesh becomes rank as the season advances, rendering them undesirable for mutton. Were the operation of castration a troublesome or dangerous one, it would justify to some extent the neglect, but as it is neither difficult to perform or attended with much risk, why do farmers permit such loss to continue year after year? Not only would the lambs gain faster and make better mutton, but they could be marketed after the glut season is past, or even be held till spring if so desired, when their wool will have paid for their keep and the lambs themselves developed into top-price mutton carcasses of good weights.

Judging Live Stock---Score Card vs. the Old Way.

I suppose no one will deny that judging of our farm animals has been to a great extent a matter of guesswork. There is not one judge in a hundred that has any definite set of rules to guide him in his awards. There has been a prejudice against the score card outside of the poultry yard, and many good poultry judges do not score their birds, preferring to take them as a whole. We believe, however, that the score card can be made of great value to a judge in any of our stock rings. In the first place, he can take the animal in parts instead of as a whole, and in giving reasons for his awards he can point to the different sections which have been cut or approved of. Take for example the case of a horse being judged at one of our county or township fairs. How often do we see the judge walking round the animal two or three times, and then, after half-an-hour's consultation, making the award without a leg being examined or a foot lifted. Here we find the most important section of the animal formation entirely overlooked, whereas if the score card had been in use, this omission could hardly have taken place. In the best score card for horses, a full quarter of the possible points is given to the legs and feet, and justly so, for there is much truth in the old saying, "No foot, no horse," and it is seldom indeed that a judge can award the full number of points in this section to any animal coming before him. The following card we used in the Old Land 25 years ago in judging the English breeds of sheep: No. 1 Shropshires—Head, ear, and face cover, 15; back (keystone of the arch), 25; leg of mutton, 20; rib up and home, 15; constitution, 10; blockiness, 5; wool, 10. Total, 100. This, however, is only the ideal of perfection, and as no animal reaches this high standard of excellence, no judge can score to the possible limit. We have had judges score up to 95, but this is coming too near the ideal, and we consider 85 to be the limit for all practical purposes. How to cut in scoring is the great "crux" of the beginner in judging by score card. One-third of the possible points in the section is generally held to be as far as one can go in cutting, as the worst animal we meet has the greater part of the possible points still left to him, and the cut has to range from 1 to a third of the full complement of points allowed the section. For example, take the back in the above card, given a full quarter of the possible points. On account of the great comparative value of this section of the animal formation, we can only cut from 1 to 8, notwithstanding the number of deplorable backs which we find in the sheep classes. There are, however, disqualifications in all the classes of stock, which are or should be well known to the judges of each class, and these have to be reckoned with in making the awards, even when the total score would admit of a prize being given. J. G. DAVIDSON.

Simcoe Co., Ont.

A Western States farmer, after listening to a group of neighbors bragging on their big-milking cows, told this one: "I want to tell you about a little piece of bad luck I had with a little Jersey cow of mine last week. She had the misfortune to fall into a well. The second day after the cow had fallen into the well, the whole plan of redemption came to me like a revelation. I just went down in the well and commenced milking that cow, and before sundown I had her floating at the top of the well, and she stepped out and went to grazing as if nothing strange had happened."

Bacon in the British Market.

The change in the mind of the British public in regard to the style of bacon is very marked. The present demand is for meat in which the lean and fat are well mixed; the big, fat hog, which was so popular some years ago, has had to give way to a pig of quite a different build. The modern bacon pig is an animal of great length; it is much deeper in its sides than its predecessor, and correspondingly narrower across the back. It is also light on the shoulder and has less weight of jowl. The

two eye sets were used, we noticed many vacancies in the rows, particularly among early varieties, but this year larger sets were used, and scarcely a vacancy has occurred in the rows.

Field Roots.—Mangels will give somewhat less than an average crop, while Swede turnips and carrots are almost an utter failure, owing to the drought in spring and early summer. Garden vegetables, from the same cause, will prove a very light crop.

Brome Grass.—The first cutting of this grass only yielded about one and one-half tons per acre, but there is a fair crop of aftermath, which promises another ton per acre should the weather ever clear up sufficiently to dry it. The new sixty-five acre pasture field contains two small plots of this grass, and the cattle appear very partial to it, neglecting the native pasture to feed on it. This field encloses a lot of broken land, useless for any other purpose; and having two living springs of water, plenty of shelter, and a variety of grasses, it makes a very satisfactory pasture.

Owing to the drought in the early part of the season, the Brome grass failed to send up seed stalks, and there promises to be a shortage of home-grown seed. A large supply of last year's seed was kept over on this farm, and a number of one-pound packages will be sent out for testing purposes.

Tile Drains.—This wet fall has given our tile drains a severe test. There is about 5,000 feet of various size of tile running through the farm from west to east. These were put down ten years ago, and are still working satisfactorily. Had it not been for this drain, about forty acres of this year's crop would have been floating about in water. The tile is only four feet below the surface in some

Western or any other fair for five years, for the two reasons that the returns did not warrant the expense, and at that time of the year the agents could be more profitably employed in other ways. Mr. Maxwell, the secretary, concluded: "The meeting wishes me, as secretary, to thank you for the treatment received in the past. Should they again desire to exhibit, you will be given ample notice and time to see that suitable accommodation may be prepared. They wish your exhibition every success."

"The charge has also been made that passes are issued indiscriminately. This is not so. Family passes are issued only to the directors and the chief of police. Regular admission tickets are sent to aldermen, members of the Fair Association, railway managers, newspaper men and certain civic and government officials, who of necessity had to attend the fair, and limited tickets were given to the school trustees, members of the Public Library Board, city officials, hospital trustees, and members of Parliament for the western constituencies. Officers of the Association were asked to give passes to persons who had no earthly right to them. They were always refused."

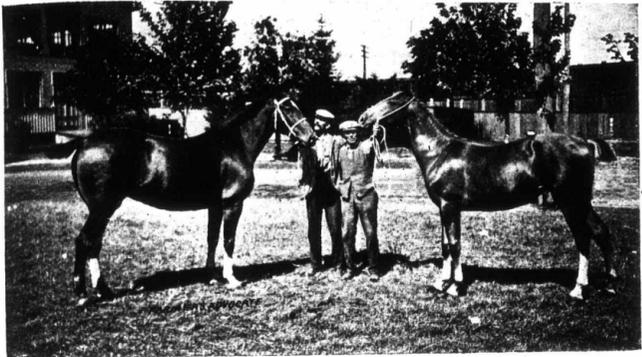
"The matter of side shows was a very serious one, but the onus of deciding whether they were proper must be borne by the police. It was their duty to learn their nature, and if wrong, to eject them. The Association was particular to state in all communications with side-show people and game operators that they must keep themselves within the law. The side shows—that is, good ones—were a necessity, but in future greater vigilance would be exercised."

"The exhibition is conducted as a means of benefiting the city, but it does not get the support from the citizens that it deserves. The directors do not draw one cent out of it. Theirs is all a labor of love. The business men of the city appear quite willing to have strangers come to the fair and spend their money, but they are not ready to help the fair along as they should with patronage and by exhibiting. This is the only fair that does not receive aid from the municipality. Winnipeg fair gets \$5,000 annually from the city, and \$3,500 from the Provincial Government. The Western gets between \$300 and \$400 from the Ontario Government. It is self-supporting."

"Next year a determined effort will be made to bring the citizens out on the early days, Monday and Tuesday, and to bring people here from the United States. In Winnipeg, 6,000 or 7,000 from the States go to the fair there."

"London compares most favorably in the matter of expenditure and economical management."

"The financial statement for 1900 is evidence of the success that attended the Western this year. The Fair Association has a balance of \$1,374.17, after meeting all expenses. The receipts were: Entrance fees, \$1,746.95; privileges and rent of booths, \$4,504.80; gates and grand-stand receipts, \$18,029.55; yearly permits for the use of track and stalls, \$109; special prizes and subscriptions, \$1,425; interest from bank, \$60; total, \$25,935.33. The expenses were: Prizes, medals, judges' fees, \$11,132.35; police, \$300.68; grounds and buildings and general expenses, \$3,741.45; printing, advertising, etc., \$3,025.82; office expenses, \$1,886.88; expenses of various departments, including attractions, fireworks, music, \$4,504.01."



HACKNEY MARE, MONA'S QUEEN, AND HER YEARLING DAUGHTER, TITANIA.

Mona's Queen (by Lord Derwent 2nd) won first for single Hackney mare or gelding, also English silver medal, and Titania (by Squire Rickell) won third at the Toronto Industrial, 1900.

OWNED BY ROBERT BEITH, BOWMANVILLE, ONT.

type of pig which the bacon-curers now find most profitable in their business is one of great length and depth, light in the shoulder and jowl, not too wide in the back, and carrying its width evenly from the shoulder to tail. This insures a deep, long ham, instead of the short, thick one which used to be so general. The back and belly should run in as straight lines as possible.

The "Doddie" in the Ascendant.

As showing how great has been the progress made by Aberdeen-Angus cattle during the past quarter of a century, a correspondent to the *Farmer and Stock-keeper* calls attention to the fact that twenty years ago there were only five breeders of the "comely Doddies" in England, while five years ago there were fifty-seven breeders, and to-day there are over one hundred! This increase is principally attributed to the high price now obtainable for Polled beef in the London market, coupled with the remarkable success achieved by the A.-A.'s at the leading fat stock shows. In this connection we are reminded that these northern blackskins have won the championship of the London show twice in the last three years. In Ireland the progress made by the breed has been almost as marked as on the other side of the Channel. Ten years ago there were not a score of breeders of Aberdeen-Angus cattle in Ireland, to-day there are over fifty! As regards the feeding and early maturity of these Black Polls, the writer in our contemporary has been recently carrying out some experiments, and he finds that well-bred Polled bullocks under twenty months old will, with liberal feeding, make from two and a half to three pounds of increase in live weight, and that animals over twenty months old will make an average increase of 2 lbs. per day.

FARM.

Brandon Experimental Farm Notes.

Our experience, like that of the average farmer of the Province, has been a very discouraging one this year. In early August, the yield of grain promised to be at least an average one, but on the 17th of that month a fierce storm struck the farm, accompanied by hail, and nearly an inch of rain fell in a few hours. This beat the grain out badly, and some of the fields were levelled as if rolled. Since the above date, rain has fallen every few days. Some of the grain is in bad condition.

The yield of fodder corn on the farm is a large one this year. After filling two silos, there is still about three acres stooked for dry fodder. One acre of this is Yellow Dakota Flint, which is expected to give a good yield of matured seed, and the fodder will be used to supplement the very poor straw we are sure to have this year.

A quantity of native squaw corn was grown on the uplands this year. The plants were so short that the fodder was hardly worth cutting, but the ears were fully matured, and we hope to have some seed of this very early variety for distribution. It never fails to mature here, and although not equal to sweet corn for table use, it is so much earlier that every farmer should grow a patch. The ears are very small, but quite interesting, with their various-colored kernels.

Potatoes.—This useful tuber has given an average yield, and all are now packed in bushel boxes in the cellar. Considerable complaint is heard in the neighborhood regarding rot; but the crop on this farm is perfectly free from it and the quality is excellent. In former years, when only one and



MATURED MANITOBA NATIVE SQUAW CORN.

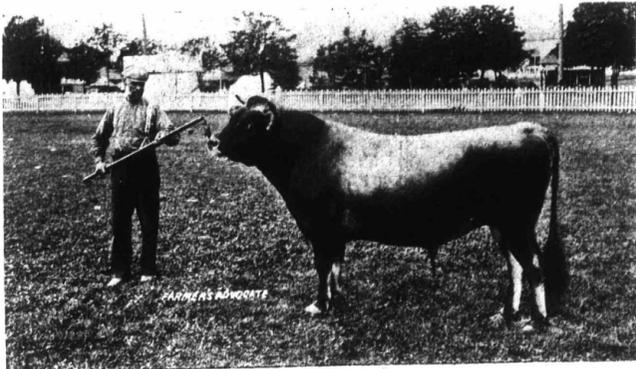
places, but fortunately there are no springs tapped by it; otherwise, I fear it would freeze solid during the winter months, but, as it is, the tile is quite dry by New Year's. S. A. BEDFORD. Brandon Exp. Farm.

Western Fair Management.

Col. Gartshore, President of the Western Fair, makes the following statement regarding the recent exhibition:—

"The impression has got abroad among the farming community that the implement men have not been very well treated by the fair management, and that for that reason alone they were not exhibiting. As far as the implement men are concerned, the fact is that we have never charged them anything but an entrance fee of \$1, for which we furnished them with light, power and space. They also received passes for admission to the grounds according to the number of men they have employed at the fair, and when sufficient passes were not granted, they could have been secured on application at the general offices. The Board may have appeared strict in the matter of passes, but the privilege is one that is very much abused. As for the implement men, I would say that three years ago they complained that they did not have enough room. They said if the Board of Directors would enlarge the machinery hall they would make an exhibit which would startle every person. The Board spent \$2,500 to please them, and they were pleased."

"A letter had been received by the Association that was signed by most of the manufacturers of Canada, that they had agreed not to exhibit at the



PRINCE FRANK'S SON.

First-prize Jersey bull, 3 years old, Toronto Exhibition. First and champion, Western Fair, London, 1900.

OWNED BY W. G. LAIDLAW, WILTON GROVE, ONT.

for the *ADVOCATE*. We are beginning to appreciate its value here as an educator for the farmer, where he can get all the knowledge required to make his farm profitable. A. D. FARQUHAR. Perth Co, Ont., Oct. 6th, 1900.

were allowed to
ers remained in
occasionally, but
The next Septem-
ation of all my
ided success. I
ceived from my
s and his consci-
ary at all times
ented him with
ak at once for the
d my daughter,
wedding present.
stead.

sted In.
arket that of the
orward recently,
wethers, which
ninetly per cent.
sted in the chief
ason are uncas-
o is a mystery to
it is, that as the
ams become a
y are raised, and
ime when every
orward. Even if
the ewes without
ak as the season
able for mutton.
a troublesome or
some extent the
ult to perform or
farmers permit
year? Not only
nd make better
after the glut
till spring if so
ve paid for their
veloped into top-
ights.

Card vs. the

at judging of our
extent a matter of
ge in a hundred
o guide him in his
dice against the
yard, and many
their birds, pre-
We believe, how-
e of great value
ngs. In the first
rts instead of as a
is awards he can
ch have been cut
le the case of a
county or town-
the judge walking
times, and then,
n, making the
mimed or a foot
important section
verlooked, where-
se, this omission
In the best score
he possible points
tly so, for there
o foot, no horse,"
ge can award the
ion to any animal
g card we used in
ing the English
aires—Head, ear,
e of the arch, 25;
me, 15; constitu-
Total, 100. This
ection, and as no
of excellence, no
it. We have had
ming too near the
limit for all prac-
oring is the great
ng by score card.
in the section is
can go in cutting,
he greater part of
n, and the cut has
all complement of
example, take the
ull quarter of the
ne great compar-
animal formation,
withstanding the
ch we find in the
e, disqualifications
are or should be
a class, and these
king the awards,
admit of a prize
J. G. DAVIDSON.

ter listening to a
their big-milking
tell you about a
th a little Jersey
the misfortune to
after the cow had
lan of redemption
ust went down in
g that cow, and
g at the top of the
at to grazing as if

A Commendable Effort.

The Botanical Committee of the Ontario Experimental Union has undertaken a commendable work in preparing and sending out to public schools throughout the country mounted typical specimens of nine of the bad weeds of Ontario and their seeds. Accompanying each collection is sent correct botanical descriptions of the different species, along with suggested methods of eradication for each. The object is that the collection may be put in some safe and convenient place in the school building, that it may be available for reference by pupils and others interested. It is hoped that this small collection may be but the nucleus for the gathering together of a fairly complete herbarium, which the director of the work, Mr. M. W. Doherty, Ontario Agricultural College, expresses his willingness to assist in the way of identifying specimens and giving information concerning them. The presence of such collections in the schools should materially stimulate the study of plants, and particularly of weeds. It is a fact that very much expensive annoyance might be nipped in the bud if every farmer were familiar with the names and habits of growth of all the troublesome weeds in his section of the country. Men so informed will readily distinguish a "new-comer," and so be prepared to exterminate the individual before it has increased so as to render eradication difficult. We have one of these collections before us, which is exceedingly well cured, in natural color and form both of foliage and flower. Each weed is mounted on a large separate sheet of tough paper, and along with each goes a small package of the seeds, as well as the following information: botanical order, scientific name, common name, habitat, name of collector, and when collected. While the plants are well mounted, they could not be expected to withstand much handling or manual examination, so that it would seem wise for the trustees of the various schools to set about getting appropriate cases, with glass fronts, so that the specimens could be seen at any time and all the information necessary gathered from them without doing them injury. Collections preserved in this way and added to year by year cannot fail to bring forth results of very great importance in a very few years.

Peas Should be Treated for Bugs in the Fall.

The pea crop, which we so much value, has received a serious setback during the last few years by reason of the ravages of the pea bug or weevil (*Bruchus pisi*). Various methods have been attempted to overcome this pest, such as late sowing, treating the seed with hot water or carbon bisulphide, and in some cases holding the seed for two years so that bugless peas would be sown. These treatments are all good, but since the insect travels by flight, so long as careless pea-growers allow infested crops to propagate the intruder, so long will even those who sow clean seed have to combat his attacks.

The weevil makes its appearance the last of May or June, according to the temperature of the season, and is ready as soon as the young peas begin to swell to provide for the continuation of the species. The eggs are deposited on the outside of the pods and are fastened there by a viscid substance that quickly hardens. These eggs can be readily seen on the pods during the month of June. They are about a thirtieth of an inch in length, long and slender in form, of a deep yellow color. Sometimes a dozen or more will be found on a single pod. The larva soon hatches out, drills through the pod and works its way into the young berry. The hole in the pod soon grows up, and there is then nothing to indicate the presence of the inhabitants within. The color of the larva is a deep yellow, with a shiny black head. There are often many more larvae on the pod than there are peas within, but there is only one to a berry. The rest perish. The larva continues to feed on the albuminous part of the pea, but rarely touches the life-germ, so that the vitality of the berry is not destroyed. On reaching maturity, it eats a round hole to the outside of the pea, leaving only the thin hull to enclose it, and then passes into the pupa state. It usually remains in this condition until the following spring, then to become the mature weevil. The weevil is of a rusty black color, with several gray spots and bands on its back and wing-cover.

In sections of the country where the pea bug prevails, the peas intended for feed or seed should be treated with carbon bisulphide as soon as threshed in the fall. At this season the insects are thus destroyed in the embryo stage before they have done the peas much damage. The method of treatment is to use an air-tight box that will hold, say ten or twenty bushels, or old coal-oil barrels may be used instead. Whichever is used, fill with peas, and set a dish on top of the peas, containing carbon bisulphide. One ounce of the liquid is sufficient for a bushel. Close the lids as nearly air-tight as possible, and leave for three days, when the chemical will have evaporated and filled the entire space from top to bottom of the vessel not occupied with the peas, destroying every germ of insect life without injury to the peas. Turn the peas out on the barn floor, which will allow the gas to escape. The gas is very inflammable, and therefore should not be approached with a lighted lantern or any other fire. Peas treated in the fall in this way will produce clean seed and make better feed than if allowed to go untreated for a few months.

Fall Wheat in Alberta.

Through Mr. George H. Shaw, Assistant General Freight Agent of the C. P. R., Winnipeg, we have received a very nice sample of fall wheat, grown in the vicinity of Pincher Creek by Mr. C. Kettles, who states that he usually sows from the 15th of July to the 10th of August, and the wheat is ready for harvesting from the 20th of July to the middle of August, and that his yields have run from forty to sixty bushels per acre.

If fall wheat can be successfully grown in Alberta, with such yields as above reported, it should prove much more profitable than spring wheat, which, although worth more money per bushel, seems a very precarious crop in that district.

Mr. Wm. Sharman, of Souris, Man., who has been collecting grains and grasses for the C. P. R. Land Department in Northern Alberta, informs us that he secured some excellent samples of well-ripened fall wheat, and from what he has seen, considers the chances good for growing fall wheat in Northern Alberta. We shall be glad to publish the experience of any who have had experience in the growing of fall wheat.

Breeding from Ewe Lambs.

Now that the craze for early maturity has taken such thorough possession of breeders of all classes of stock, flockmasters are, in many places, commencing to resort to the practice of breeding from ewe lambs as well as from ram lambs. It is doubtful if the practice is one that is to be commended, because experiences go to show that very disappointing results frequently attend breeding from such young animals. Where ram lambs are mated with mature ewes, satisfactory results may be obtained, but one well-known breeder of our acquaintance, who has recently been experimenting with shearing rams mated with ewe lambs in the hope of developing early maturity among his sheep, has had anything but encouraging results therewith, and has now decided to revert to his old plan of using his young sires with mature dams.

Among no breed of sheep is the development of early maturity so much fostered and encouraged as among Hampshire Downs, yet some of the leading admirers of that variety are by no means enthusiastic in their approval of breeding from ewe lambs. Professor Wrightson, who has had considerable experience in the matter, is by no means enamored of the idea, for, as he contends, "nature will not be hurried with impunity, and it is a mistake to make an animal undergo the trials of maternity when it has not itself arrived at half its normal size."

The Food of Blackbirds.

A bulletin has recently been issued by the U. S. Department of Agriculture on the food of the bobolink, blackbirds, and grackles. This bulletin has been prepared by F. E. L. Beal, Assistant Biologist of the Department.

The birds commonly known as bobolinks, meadow larks, orioles, blackbirds, grackles, and cowbirds are all comprised in a group known as the family Icteridae, which is represented in the United States by twenty-nine species and subspecies. In this bulletin are discussed the food habits of the bobolink, the cowbird, the yellow-headed blackbird, the red-winged blackbird, the California red-winged blackbird, the rusty blackbird, Brewer's blackbird, the crow blackbird, and the boat-tailed grackle. These comprise all the important members of the group, with the exception of the meadow lark and orioles. The ravages of the bobolink in the rice fields of the South, and of some of the blackbirds in the grain fields of the Upper Mississippi Valley at planting and harvesting time, are matters of common knowledge, but the other food of these and other species is not so well known.

The bulletin is devoted mainly to the food of the various blackbirds during the summer months, and is based on a careful examination of the contents of more than 4,800 stomachs, representing nine species and several subspecies of American blackbirds. This examination, while confirming to a certain extent the popular estimate of their grain-eating propensities, has shown also that during the season when grain is not accessible these birds destroy immense quantities of seeds of harmful weeds, and that during the whole of the warmer portion of the year, even when grain is easily obtained, they devour a great number of noxious insects. It appears that the vegetable portion of the food usually considerably exceeds the animal, and is chiefly hard seeds. The animal portion consists mostly of insects. The damage done by the red-wings and some other species has apparently arisen from the excessive number of individuals rather than from the habits of the species, and there is no doubt that in the Mississippi Valley the red-wings and yellow-heads, and farther west, Brewer's blackbird, are much too abundant for the interests of the grain-grower. The bulletin is illustrated with 1 plate and 6 text figures.

Appreciated in India.

A. YOCLES, Commissariat, Transport Department, Vaidipur, Kashmir, India: "I thank you very much for your courtesy in sending me the two copies of your excellent publication. The information contained in some of the articles is quite equal to your English contemporaries." August 29th, 1900.

Black Teeth in Young Pigs---Spray for Cows.

With regard to cankerous sore mouth of young pigs, I think this is caused by what is known to us in Huron Co. as black teeth. If the pig's mouth be examined at birth or shortly after, there will be found eight tusks sharp as needles, two upper and two lower on each side of the mouth. Usually these are black or brown, but sometimes they appear white. They lacerate the tongue and the lips of the youngster, rendering them very sore, causing cracks and scabs to appear, and if not broken off at an early date, they soon begin to fight and wound each other about the head and body, which wounds I think are poisonous; in fact, if not broken off at an early date, the black teeth will cause all the symptoms of cankerous sore mouth described by Mr. Hopkins in your issue of Oct. 1st. I always break off the black teeth in my young pigs, at as early a date as possible, always before they attain the age of one week, and if this is done they will not, I think, be troubled with sore mouth. I perform the operation with a pair of small pinchers, breaking the teeth as close to the gum as possible, being careful not to leave any jagged points.

With regard to spraying cows to keep off flies, we have found the following very effective: Fish oil, 2 quarts; coal oil, 2 quarts; crude carbolic acid, 4 tablespoonfuls. Applied with a small tin spraying apparatus. While we only had the horn fly to contend with, two applications each week was sufficient, but when the stable or horse fly appeared it took three applications each week. W. N. C. Huron Co., Ont.

Provide for the Escape of Surplus Water.

The importance of having land ready for cultivation at the earliest possible moment in spring is pretty generally acknowledged by farmers in all climates where the winter consists of wet or freezing weather. The Guelph Experimental Farm in a six years' test learned that barley sown on April 21-22 produced an average of four bushels per acre more than that sown May 9th and 10th; spring wheat produced an average of two bushels more, and oats about three and a half bushels in favor of the earlier sowing. These are telling differences, which are not the only advantages of getting surplus water off the land as early as possible in spring. Thorough underdraining will do much in this respect after the frost is out, but there are very few fields that are not the better of a system of surface water-furrowing, because the later water stands on soil, especially if of a heavy nature, the more inclined is it to become sad, soggy and difficult to work down to a friable condition. In our judgment, a field should not be considered plowed at this season before the furrows between the lands have been given an outlet and all low-lying portions crossed by water furrows, and then, at least, the junctions of the crossing furrows cleaned with a shovel, if the whole cross furrow is not shovelled, which will generally be found to pay. This greatly facilitates the escape of not only the melted snow, but it carries away the heavy showers that would otherwise deter work on the land for hours, and perhaps days, just when the men and teams are ready to go on with the seeding. It will pay to give attention to this matter, as it will help the returns of the 1901 crop and facilitate the farm work, either of which is an important consideration. The general outlet or watercourse must be attended to, that the water from one field may not collect and give trouble on another field on our own or our neighbor's farm.

Probably of greater or more general importance is the matter of having all open ditches and mouths of underdrains cleared of obstructions before freezing-up occurs. We have known whole systems of underdrains to be seriously interfered with by neglecting the general outlet for a few years. All tile drains carry considerable silt, especially in loamy or mucky soils, and when this cannot escape at the outlet, it must bank back until a general clogging results. On a certain farm we have in mind, a change of management occurred, and a definite plan of the drainage system lost sight of for a time. At a certain portion of the lane leading through the farm, the road became impassable with teams for some time every spring. Attempts were made to get the water off by side ditches, but this availed very little. Again the management changed, when it was discovered that a former open ditch close to the lane—the outlet of the drainage system of two large fields—had been trampled by stock, so that there was no free exit for the water, which was forced to ooze to the surface, not only keeping a large portion of land unworkably wet, but spoiling the lane both temporarily and, to some extent, permanently. Since the ditch was cleaned out and the drains opened back a few rods and cleaned, the system has returned to its old-time efficiency; the lane has been firm and passable, and all anxiety for the welfare of the drains relieved, since their condition can be ascertained by a casual observation. This is one instance of which there are many throughout the country. We are all aware that the fall is a busy season, and labor scarce; but this matter of attending to water-furrows, ditches and mouths of drains is of too great importance to neglect. To give no attention to the first is to delay seeding and reduce the yield, and to neglect the last is to undo, to some extent, the efficiency of perhaps an expensive and well-executed system of tile underdrain.

S---Spray for

mouth of young... what is known to... of the pig's mouth... ter, there will be... two upper and... mouth. Usually... sometimes they... tongue and the... them very sore... pear, and if not... soon begin to fight... head and body... us; in fact, if not... black teeth will... rous sore mouth... issue of Oct. 1st... th in my young... e, always before... and if this is done... with sore mouth... a pair of small... ose to the gum as... eave any jagged

to keep off flies... y effective: Fish... ude carbolic acid... small tin spray... d the horn fly to... each week was... horse fly appeared... ek. W. N. C.

Surplus Water.

d ready for culti... ment in spring is... by farmers in all... sists of wet or... perimental Farm... t barley sown on... of four bushels per... and 10th; spring... wo bushels more... bushels in favor of... elling differences... atages of getting... rly as possible in... g will do much in... but there are very... er of a system of... e the later water... heavy nature, the... sad, soggy and... ble condition. In... not be considered... furrows between... utlet and all low... urrows, and then... crossing furrows... le cross furrow is... ally be found to... escape of not only... away the heavy... eter work on the... s, just when the... with the seeding... this matter, as it... rop and facilitate... is an important... let or watercourse... ter from one field... on another field... m.

general importance... itches and mouths... tions before freez... whole systems of... terfered with by... a few years. All... silt, especially in... this cannot escape... k until a general... farm we have in... t occurred, and a... stem lost sight of... of the lane leading... became impassable... spring. Attempts... y side ditches, but... the management... that a former open... et of the drainage... been trampled in... free exit for the... to the surface, not... land unworkably... temporarily and... ince the ditch was... ed back a few rods... ned to its old-time... firm and passable... are of the drains... can be ascertained... is one instance, of... t the country. We... busy season, and... of attending to... ts of drains is of... To give no atten... ng and reduce the... to undo, to some... an expensive and... edrain.

Worth Remembering.

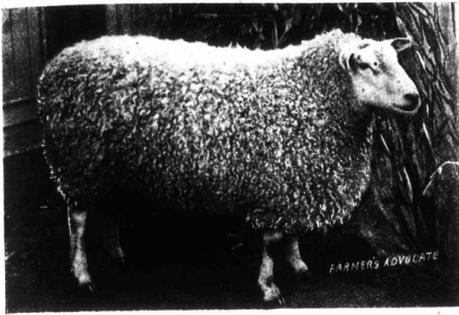
To the Editor FARMER'S ADVOCATE:

GENTLEMEN,—For keeping flies off cows, I have used this summer coil oil, sprayed with a hand sprayer, and I find it kills about one half of them at the spraying. As the cows are tied up, we go over them before milking, morning and night. Oxford Co., Ont. A. HUNTER.

The Russian Thistle as Fodder.

To the Editor FARMER'S ADVOCATE:

SIR,—I notice in the *National Stockman and Farmer* an item under the heading of "Thistle



SIMON SMART.

Two-year-old Leicester ram. First-prize shearing at London, 1899. Now in service at Maple Lodge Stock Farm. BREED AND OWNED BY A. W. SMITH, MAPLE LODGE, ONT.

Hay," where it is stated that some sections of the West have just harvested their Russian-thistle hay, that Russian thistle is becoming an important adjunct to the wintering of stock in some parts of the grazing country, and the note concludes as follows: "And so another supposed evil turns out to be a blessing in disguise." It is well known that some years ago the Russian thistle was accidentally introduced by Russian settlers into certain parts of Manitoba, and that the Provincial Government, with most commendable zeal, made every effort to eradicate this pest before it spread further and became what it has been in some parts of the Dakotas and other western prairie States—a terrible menace to agriculture, settlers having been actually driven to abandon their farms rather than face the work of fighting it. The item referred to above has been sent to me for my opinion. My opinion is simply this: that although it has always been well known, since the so-called Russian thistle has been discussed in Canada, that sheep would feed upon it while in a young and succulent state, yet there are a great many plants which are far preferable to it for this purpose, without the danger which will always be imminent if such an aggressive plant as this is known to be is allowed to spread, which it certainly very easily could do in a prairie country. I deny most strenuously that the Russian thistle is, or ever can be, "a blessing in disguise" for its economic uses. As a means of frightening our farmers to attend more carefully to the weeds upon their farms, this title may perhaps be accorded to it, but as a fodder plant or as a fuel, for which purpose it has also been commended, I claim that it is not worth the while of any farmer in our prairie regions to pay attention to it. The danger from this plant can be easily learnt from correspondents in those parts of Dakota where it still occurs. If farmers in Manitoba require hay, let them cultivate McKiver's western rye grass (*Agropyrum tenerum*) or smooth brome grass (*Bromus inermis*). This will pay them far better, without making them a source of very great danger to their neighbors and the surrounding country. The experience of western farmers with tumbling mustard all through southern Manitoba and around Indian Head, and indeed wherever wheat is grown in the West, should warn them against introducing any such wolf in sheep's clothing as the Russian thistle or any other member of the family of tumbling weeds. Central Experimental Farm. J. FLETCHER.

C. P. R. Grains and Grasses.

During the past season the C. P. R. Land Department have been making collections of grains and grasses from different districts, from which to prepare samples for exhibition purposes. Wm. Sharman, of Souris, has spent several months up in Northern Alberta, superintending the gathering and curing of samples, and in spite of the unfavorable weather, has succeeded in sending in several carloads of excellent material for samples, made up of wheat, oats, barley, peas and rye, timothy, brome and native rye grass, and quantities of native grasses, vetches and pea vines. Among the wheat is some very good samples of fall wheat, Dawson's Golden Chaff, grown near Wetaskiwin. These samples, when nicely prepared, make not only pleasing displays, but they furnish practical object lessons of what are the capabilities of the country, and no doubt serve good purposes as immigration advertising.

Manitoba Prize Wheat at Paris.

Wm. Laugland, of Hartney, who had an exhibit of wheat at the Paris Exposition, and Wm. Stephen, president of the Virden Agricultural Society, which made a collective exhibit of grains and grasses, have received word that awards of merit have been made to their exhibits. Mr. A. K. Hogg, of Bates, in the Carman district, contributed a car of Fyfe wheat in the sheaf, and has also participated in the honor.

The Faker Element in the Fairs.

I am glad to see that the managers of agricultural fairs are getting a "raking over." The storm has been brewing for some time, so they can not be very much surprised at the severity of it. I had not visited the great Western Fair at London for some ten or twelve years till this fall, and what to me seemed the greatest advancement was the faker side shows. As I walked around listening to the noise and looking at the sights, I thought the name Agricultural might as well be dropped from the concern. What with the yelling of peanut men, the jingle of the merry-go-round, the hammering of tin pails, blowing horns and other heathenish ways of attracting attention, it seemed to me a slander on the honored names of Agricultural and Industrial Arts. But when I came to where those "hussies" were cutting up their capers in front of their establishment, and saw how the folks were roped in, I said it was a downright disgrace, and I just wished I was a director for a little while. I would make short work of their gathering in the dimes and so boldly offending the sense of decent people.

Young boys think it quite right for them to see all there is to be seen at the fair. If not, why is it there? Their fathers belong to the show, and they always go, and it is rather perplexing for them to be told that they may look at some things, but not at others.

I know that it will be said by some that we need not look at that which is displeasing, there is plenty of the good to claim our attention. But I think it is wrong to allow the faker fraternity to get their living and spread their filth and vice right under the sheltering wing of the honored names of Agriculture and the Industries. Let them stand on their own merits. If the fair can not live without them, it had better die at once, and die it will unless a change be speedily made, as there are many who say if they have to take as much faker with it as in the last one, it will be no more fair for them. All the talk about the revenue derived is about as rotten as it is in connection with the liquor business. To me there is nothing so humiliating or exasperating in the world as to be told by rulers and governors that this christian country can not be run without the money which it gets for letting that which is the source of all villainies spread itself, to blight and destroy the citizens of our christian country. And it is a libel on the intelligence and purity of the Canadian people to say that an exhibition can not be maintained on the lines of Agriculture, Arts and Industries without the bringing in of that which is debasing and immoral. Parents and children like an outing once in awhile, and for those on the farm what could be better than the fall exhibitions, but unless there is improvement on the one in London this year, both parents and children had better go elsewhere for their outing. Huron Co., Ont. MRS. EVERGREEN.



PRIZEWINNING AYRSHIRES.

Second-prize herd at Toronto, 1900: Yearling bull, White Cockade; imported cow, Eva of Barcheskie; her three-year-old granddaughter, Snowflake; her two-year-old daughter, Eva's White Pearl (first at Toronto and London); and yearling heifer, Little Love (first at Toronto).

PROPERTY OF A. HUME & CO., MENIE, ONT.

Testing Farm Water Supply.

To the Editor FARMER'S ADVOCATE:

SIR, It is with much pleasure that I noticed the timely warning and the good advice regarding the farm water supply contained in your last issue. The question is one of the greatest importance, and merits much more consideration than it at present receives in many of our rural districts.

You refer to the fact that those suspicious of the purity of their supply and desiring an analysis, may forward a supply to the Chemical Laboratory of the Experimental Farm, Ottawa, and that the examination will be made gratis. This is quite correct, but may I be allowed to point out to your

readers that there are certain directions it is essential should be carried out in the collection and shipment of the water sample, and that a copy of these directions will be forwarded to farmers and dairymen on application. I write this note because it very frequently happens that the samples received by us are insufficient in quantity or have been put in bottles not chemically clean, or that dirty and previously used corks are employed, and consequently the samples are worthless for the purposes of an analysis. Yours faithfully,

FRANK T. SMITH, Chemist, Exptl Farms. Ottawa, Oct. 4th.

Notes on the Treatment of Farmyard Manure.

In most countries of the Old Land the value of farmyard manure, or dung, as it should be called, is placed very high. As much as four shillings a yard has been paid for it immediately after being turned, and the incoming tenant has to take all the dung on the farm at a valuation. The usual plan is to cart the manure to the field during the winter, making a special point of driving the teams over the heaps as it is being made to consolidate and pack the pile so completely that when spring comes it will cut like cheese, and no heating takes place. Then, one week before being required, it is turned in five-foot benches, and the heating it gets during this short period suffices to kill all weed seeds, besides leaving the dung in the best possible shape to be put upon the land. This is the next best way to spreading it on the land during winter. There can be no doubt of the advantage of spreading such manure on the land, rather than leaving it in heaps. The part under the heaps is made too rich, and the heap itself is dried out and made much more difficult to spread. The writer has had the experience of dressing a grass field heavily with fresh, long dung in the early winter, and in spring raking the whole of it as clean as possible with the sulky rake, and putting it into the turnip drills, the result being a double crop of hay and no appreciable difference in the turnips from those manured directly from the yard. The following crop of barley and seeds, however, showed the want of the soluble constituents which were washed from the dung during the winter and spring months. Perhaps the best way of all, however, to make and keep dung is to leave it in the pen where it is made until it is required to put upon the land. The surface of the pen can be bedded or covered with straw once a day, and the droppings levelled and spread equally, so that the pen can be filled without leaving loose spots, which would heat and spoil before spring. We find, moreover, that the animals kept in such pens are singularly free from attacks of rheumatism during the severe cold of the winter months. We have noticed hundreds of attacks of this troublesome complaint following the cleaning out of pens during the prevalence of extremely cold weather, not only here in Canada, but even in the Old Land, where the climate is much more moderate. It is surprising how comfortable the animals can be made in a pen such as we have above described. The urine voided by the animals prevents anything like heating of the dung, but there is always a gentle waruth, which is very pleasant to the animals when lying down. By dehorning and feeding in loose boxes as above, one can hardly imagine the advantage obtained over the tying-up method, with the daily cleaning out and great waste of the valuable constituents in the

manure through exposure and leaking, not to speak of the opening of the doors and the consequent chilling drafts to the animals in a comfortable stable. J. G. DAVIDSON. Simcoe Co., Ont.

Another Protest.

To the Editor FARMER'S ADVOCATE:

SIR,—I must say I was very much pleased with the stand you have taken in denouncing fakers and side-show attractions. I believe they are a disgrace to our boasted Canadian civilization. They cannot be banished too soon. Sincerely yours, W. K. NEWTON. Norfolk Co., Ont.

Dr. Wm. Saunders at the British Association.

The annual meeting of the British Association for the Advancement of Science was held a short time ago, at Bradford, England, and a copy of the *Observer* newspaper of that place to hand contains an excellent report of the proceedings of several sessions. At one of these, Dr. Wm. Saunders, Director of the Dominion Experimental Farm, read a comprehensive paper, entitled "Results of Experimental Work in Agriculture in Canada under Government Organization." After describing the inception of the Farms, he dwelt at length upon the investigations carried on in connection with the use of fertilizers, plowing under green clover, fall plowing and early seeding, selection of varieties of seed, growing fodder crops, fruit culture, tree-planting, and the destruction of noxious insects and combating fungous diseases.

In the lengthy discussion which followed, Dr. Saunders was very highly complimented upon his excellent paper. It was pointed out that in England the policy is to encourage more largely local effort, as there is practically no experimental or educational work of an agricultural character in that country entirely maintained from Government sources. Among other observations made were the following by Prof. Somerville, Professor of Agriculture at Cambridge:—

"At present in England there were eight or nine institutions that received Government support in the shape of annual grants. These grants, supplemented by local support, were sufficient to provide a staff of instructors and also facilities for the conduct of experiments. The educational work was carried on on orthodox lines, and the experimental work was devised and carried out on the initiative of the workers at the various centers. The result achieved during the last few years had been very extensive and had led to a belief on the part of the farmers themselves that the work was of distinct value to agriculture. But the value of the work was not so much in the way of placing models and examples, as it were, before the farmers as in making the farmers think in a way they had not thought in the past. Agriculturists, if they were not stirred up in some way, were apt to go along on lines that they had followed in the past. In many cases these lines were satisfactory, but also in many cases it was likely that improvements would be effective. When the farmers saw that these improvements led to better results, they began to devote more intelligence to their business. He considered that the work done in Canada was extremely valuable to farmers in this country, and he believed great advantage would be derived from the improvements in the variety of cereals and other plants. In the United States, also, especially in Wisconsin, valuable work had been done in the direction of improving the yield of cereals, not by extending the area planted, or by better manuring and tillage, but entirely by introducing new varieties of seeds. The improved yield from new varieties was often perfectly astonishing, and that without any increased expenditure on labor or manure. With regard to the advantages Dr. Saunders found could be derived from growing clover along with cereals, that was a point that had strongly been insisted upon by Humphrey Davy in the first decade of the present century, but he (the speaker) did not think the practice would be of value in this country, for the simple reason that the best farmers here hoed their wheat, and of course it was impossible to hoe the wheat if the clover plants were sown along with it. He did not propose to make any attempt to criticise Dr. Saunders' paper, which deserved the most careful consideration, and would no doubt prove of very great value to English agriculturists."

In an editorial review of the foregoing session of the Association the *Bradford Observer* says:—
"Economics yesterday spelt Agriculture. There was a paper in the afternoon which might have attracted the merchants and manufacturers of Bradford if they had thought that the scientists could teach them anything about 'Trade Fluctuations' which was worth a guinea to learn, but all through the morning the farmer held the field—or, rather, the floor—where the attendance was very scanty. One of the marvels at the Chicago World's Fair was a cheese (22,000 lbs.) about as big as the great tun of Heidelberg. It came from Canada, which country exported in 1898 more than three and a half million pounds worth of that esteemed comestible, besides much butter and innumerable quantities of pork butchers' stock. This for a country next door to Chicago itself was no small triumph. How was it brought to pass? Largely, argued Dr. W. Saunders to his fit, though small, audience in the Mechanics' Saloon yesterday, by the institution under the auspices of the Dominion Government of experimental farms. In 1881, Canadian agriculture was in a bad way: in 1886 these farms were started, and in twelve years they had given the Canadian farmer so many wrinkles that he was able to achieve the record above noted. It scarcely needs to be added that the agricultural economists present were entirely impressed with Dr. Saunders' argument, and considered that experimental farms under the aegis of Mr. Walter Long were just the thing needed to set the British farmer on his feet again. Professor Hall maintained that systematic and continuous research in the dark could only be prosecuted permanently and adequately under State patronage and control, the professors of the agricultural colleges being primarily engaged

with pedagogy, and the personally-equipped farm being subject to the vicissitudes of its owner, as the case of Rothamsted has recently reminded us.

"Subsequently Professor Hall rather knocked the bottom out of his plea for State aid by recounting some experiments admirably conducted under the auspices of the South-eastern Agricultural Society with the object of ascertaining whether the British farmer could successfully set up as a sugar-planter. The eventual conclusion was negative, on the ground that although beet could be grown in the southern parts of England with as good a yield as that of the Continent, the margin of profit would be eaten up by the cost of carting it to the mill. This is a conclusion corroborated by the experience of not a few Prussian growers. But in Professor Hall's case it was reached by a thoroughness of testing and a carefulness of calculation which suggest that the existing experimental stations in this country are doing very good work."

While in many ways our Experimental Farms have been an admirable object-lesson, and an incentive and aid to progress in several of the directions above specified, Canadians who know the actual history, for example, of the development of our great cheese and bacon industries, will be somewhat amused at the *Observer's* inference, that these were brought about by establishing experimental farms.

Late Fall Pigs.

As a rule, it is preferable to have fall litters farrowed in September or early in October, which gives them time to lay a good foundation for a healthy and robust constitution, with plenty of muscle and strength of bone, by allowing them ample exercise in the pastures during the first two or three months of their life. They will then be in a condition to take on flesh rapidly when confined to the pen in winter, and will be less liable to become crippled by rheumatism than will pigs farrowed later in the fall and which cannot have the necessary exercise to develop strength. When litters come late in the fall or in the early winter months, they must have the best care and treatment possible under the circumstances. This includes a warm and dry pen for the sow when the time of farrowing approaches, and some extra attention to the little ones for the first few hours or, it may be, days after their birth, to give them a good start in the world. The sow should be fed sparingly of sloppy food for the first few days, and her feed increased gradually in quantity and strength as the pigs grow older and their strength more heavily by tugging at her for nourishment. Care should be taken that the pigs get some exercise daily after they are a week old, by letting them out with the sow for a run of a half hour or an hour on fine days, or if the weather will not admit of this, they should be encouraged or compelled to exercise in the pen. The pigs should, when three weeks old, have a section of the pen set apart for themselves by a low partition, with the bottom board six or eight inches from the floor, so that they can go in and drink warm milk from a low, flat trough, which the dam cannot reach, and thus taught to eat before they are weaned. The weaning should take place at about eight weeks old, and the milk supplemented by a little shorts or ground barley or oats with the hulls sifted out. Gradually kitchen swill may take the place of the milk if there is not enough of the latter for the youngsters. A mixture of hardwood ashes and salt should be constantly kept in a low trough or box in the pen, from which the pigs may partake at will. Where corn cobs are on hand, wholesome charcoal can be made by burning them and, when well charred, throwing water on them, and pigs will eat these with a relish. It is better to feed so as to encourage growth and not fatness in the first three or four

months, and then to feed more liberally in the finishing period to prepare the pigs for market. It is wise also to avoid feeding much cold sloppy food in cold weather, as it is liable to cause indigestion and disease. Some very successful feeders feed meal dry in winter and give the drink in a separate trough, and if no more is given at a time than is taken up clean, the results are more likely to prove satisfactory, and if the pigs are given a run out on the ground on fine days for a short time where they can bite the earth and get a little grit, it will be found helpful in keeping them healthy. The treatment of breeding sows in winter to carry them through cheaply and in the best condition for successful breeding of spring litters is another subject, and one which may be summed up in a few words by the admonition to give ample room for exercise in a yard or field and feed mainly on whole or pulped mangels, with a slight mixture of shorts or meal, to which may profitably be added clover leaves or clover hay that has been passed through a cutting box. A few handfuls of corn or peas thrown around on the ground once a day will keep the sow in exercise and encourage mastication of her food, which will promote proper digestion and prove of advantage in its effect upon the coming litter.

DAIRY.

The Udder as an Indicator.

While every cattle fancier recognizes the relative value of all the various points that go to make up an ideal whole, nearly every one has a particular point upon which he lays great stress in judging a dairy cow. I must confess that I am very partial to one special feature of every dairy cow. That point is not the color of the inside of the ear, nor is it the escutcheon, nor the length of the tail, nor the size of the umbilical, but it is the udder and its veins. The mammary gland is, in my estimation, the most reliable indication of a dairy cow. I think it may be considered more important than all others combined, in point of estimating actual production.

We may, and frequently do, see cows with an ideal head, neck, body, etc., but if her udder is not well developed the cow is a failure in direct proportion as this important feature is lacking. But do we ever see poor producers with well developed udders? It seems to me perfectly natural that as milk is secreted in the mammary gland, the greater development of that organ, the greater will be its product. I think that we, as breeders of dairy cattle, should pay more attention to the development of udders in our ideals of breeding. In order to do that, however, it would be well to have some expression as to what kind of an udder is ideal in shape, size and composition.—*Professor Howard.*

Dairy Cow Tests at Aylmer, Ont., and Stratfordville Fairs.

We publish herewith a tabulated report of milking competition or dairy contest, held at the East Elgin County Fair, Aylmer, Ont.; also the Stratfordville Fair.

The scale of points used was the same as at the Provincial Winter Show, with the exception of a slight change for days milking, one point for each twenty days in milk being given. This change was made on account of the test being for a shorter period than at the Provincial Show.

The fair at Aylmer came at a time when some who had intended to enter were filling their silos, hence the competition was not very strong. The tests were conducted by Mr. R. W. Stratton, of the O. A. C. Dairy School at Guelph.

AYLMER, SEPT. 19TH, 1900. TEST, TWENTY-FOUR HOURS. ONE-COW TEST.

RANK.	NAME OF COW.	OWNER.	Lbs. milk.	Per cent.			Lbs.			Points for			Total points.
				Fat.	S.	N. F.	Fat.	S.	N. F.	Lbs. Fat.	S. N. F.	Days Milking.	
(1)	Daisy B.	W. Bingham	36.00	4.6	9.62	1.656	3.463	33.120	13.852	1.35	48.322		
(2)	Becky	J. Lawrence	26.75	4.5	9.25	1.204	2.474	24.080	9.896	6.30	40.276		
(3)	Rosa	E. Caverly	28.00	4.0	9.32	1.120	3.116	22.400	13.034	2.00	38.064		
(4)	Molly	W. Hay	17.00	3.7	9.17	.629	1.539	12.580	6.236	7.10	25.816		

STRAFFORDVILLE, SEPT. 26TH, 1900. TEST, SIX HOURS. ONE-COW TEST.

(1)	Locker	E. Jackson	6.25	3.4	9.17	.215	.571	4.250	2.224	9.50	16.024
(2)	Spot P	J. E. Pauling	5.50	4.4	9.52	.240	.526	4.840	2.094	8.60	15.344
(3)	Jersey P	"	4.75	5.1	9.52	.243	.452	4.840	1.808	8.75	15.408

STRAFFORDVILLE, SEPT. 26TH, 1900. TEST, SIX HOURS. THREE-COW TEST.

(1)	Bluey	J. A. Jackson	12.50	3.7	9.12	.465	1.175	9.250	4.710	8.25	22.210
	Spot Jack		15.00	3.3	9.07	.450	1.395	9.900	5.440	10.00	25.340
	Brown		12.25	4.0	9.75	.490	1.194	9.800	4.776	9.75	24.326
71.876											
(2)	Spot J	L. Johnson	8.25	2.9	9.60	.233	.792	4.760	3.168	6.30	11.250
	Gib		10.75	4.1	9.35	.470	1.061	9.460	4.024	7.25	20.730
	Floss		12.25	4.3	9.37	.528	1.148	10.530	4.592	6.95	22.072
57.066											
(3)	Black	E. Jackson	10.25	3.6	9.25	.360	.941	7.380	3.724	8.95	20.124
	Red		8.50	3.5	9.32	.295	.802	5.950	3.268	7.15	16.368
	Winkle		7.75	1.8	9.35	.135	.726	2.790	2.894	5.95	11.684
48.076											
Susan	T. H. Mason	7.00	3.1	9.10	.280	.630	4.700	2.540	10.00	17.300	
Lip-sit		7.50	4.1	9.27	.305	.663	6.120	2.782	5.15	14.312	
Ruby		8.25	2.0	8.65	.160	.713	3.900	2.844	6.15	12.604	
41.296											

Canadian Cheese Wins at Paris.

A letter received by the Department of Agriculture, at Ottawa, shows the great success of the Canadian exhibit of cheese at the Paris Exposition, and the prospects for the growth of the trade of Canadian cheese in France. The following are extracts from the letter from Mr. W. A. McKinnon, in charge of this portion of Canada's exhibit:—
 "In the permanent international competition, Canada's exhibits of dairy products, including butter, factory and cream cheese, were awarded

in the pail, just where you want it. If our readers will test this method they will make enough by it to pay for a farm paper during their lifetime. The plan is simple and feasible, and thoroughly practicable. There is no chance for any loss in it, and every chance for profit.—*Wallace's Farmer.*

High-Scoring Butter at Paris.

F. W. Culbertson, buttermaker of the creamery at Sherman Mills, Me., was among those who sent butter to the Paris Exposition, it scoring perfect on all points except flavor. Mr. Culbertson won first premium on tub butter and first premium on prints at the Eastern Maine State Fair, on butter made the same as that sent to Paris, except that two-fifths more salt and color were used. His method of buttermaking is given as follows: We have 67 patrons, 20 of whom bring milk to the factory to be separated. This we run through the Alpha separator, at 77 degs. F. Some of the other patrons have farm separators, and others the deep-setting Cooley system. I steam out the pipes, tempering vat and separator bowls, cream and milk cans. The cream is cooled to 68 degs. and ripened with a 15-per-cent. starter. The gathered cream is put into the partly-ripened separator cream.



PAIR OF TYPICAL LINCOLNS.

Second-prize winners in class at Toronto, and were in first-prize flock. BRED AND OWNED BY EXHIBITOR, JOHN T. GIBSON, DENFIELD, ONT.

the highest possible diploma, the grand prize, and with the maximum number of points. Other grand prizes were awarded, but Canada alone received the maximum rating. One of the most gratifying results of the display is that Felix Potin, easily the first of high-class grocers in Paris, a member of the International Jury and a man who handles only the finest goods, and is exceedingly hard to please, has placed an initial order for Canadian factory cheese. This house is so important that if it can be induced to take up any new article in the trade, the success of that article is considered assured; it is, therefore, at once a tribute to the quality of Canadian cheese and a good augury for the establishment of a trade with France in that product. Among the qualified critics were the United States Commissioner of Dairying, the British and Danish jurors, the director of British dairy at the Exposition, and a number of Swiss exhibitors from the famous Gruyere district. The exhibits of Gruyere cheese aggregate 95,000 pounds, together with an assortment of various fancy kinds in smaller quantities. The fact that it was deemed wise to go to such expense shows the importance of the Swiss cheese trade with France, and the fact that competent judges think Canadian cheese can supplant Gruyere in public favor shows the great field open for this branch of Canadian commerce."

The Calf Intended for Dairy Purposes.

One of the main difficulties in making dairying a success is the difficulty of securing the best machinery, not of iron or steel, but of flesh and blood; in other words, the best dairy cows. Such cows can not easily be bought, for the men who have ability to produce them know their value and their profit. Practically, the farmer who wishes a herd of choice dairy cows must grow them himself. While it is a difficult matter, it is not so difficult as one would imagine if he would but go at it in the right way.

The easiest way to secure this is to buy heifer calves from the best dairy herds in the neighborhood. These can always be bought, if not pedigreed, at reasonable prices. If a farmer will buy a dozen calves from reasonably good dairy cows, which can be found in almost any dairy neighborhood, and will feed them properly, and when they are fifteen or sixteen months old mate them properly with a sire whose dam and grandam have been good dairy cows, he will stand a chance of having half a dozen paying dairy cows in the lot and a progeny with dairy instincts.

What do we mean by feeding them properly? Feed them mainly on clover hay, corn fodder, and oats, with from one-third to one-half as much corn as oats during the cold weather in the winter season. If he finds that they get quite fat on this ration, leave the corn out altogether. Do not aim to make them fat, but aim to keep them growing. When turned on grass, without grain, next summer, let them get as fat as they like. There is no danger of grass fat hurting any breeding animal.

When they produce their first calves, break them to milk at once, and feed liberally, grass or no grass; feed all they will eat of a properly-balanced dairy ration. If any of them are disposed to get fat, feed and milk all the same, but sell these to the butcher. Keep the cows that remain thin in flesh on full feed and a full flow of milk. You will find on testing that they are good milkers. The cow that when in good health and on full feed fails to get fat usually does so because she puts the milk

for use. The cream used for this butter was 28 per cent. butter-fat, and churned at 54 degs., the butter coming in 54 minutes in granular form, one-half the size of wheat kernels, and the buttermilk looked watery.

I ran off the buttermilk and washed once with pure spring water at 52 degs. by revolving the churn slowly one-half minute. The water was then drawn off, leaving the butter medium dry, when I weighed and salted one-half ounce to the pound, and worked on a Mason worker two minutes; it was then set in the cooler about five hours, when I worked it again for two minutes more, and then put back into the cooler until the next morning, when I again worked it two minutes more, the butter being dry, mellow and waxy, and the grain like broken steel.

The tubs were soaked over night in cold water with some salt in it to form a weak brine. I rubbed salt on the sides of the tub and lined it with parchment paper, packed the butter solid, stroking the top off even and lapping the paper from sides of tub one-half inch over the butter, put on a cloth circle and some salt, then a parchment circle on top, and using universal tub tins to nail on cover, bending tub tin five degrees with my fingers, so the nails would be driven into the tub straight and not pull out of the tubs. The butter was colored one-half ounce to 100 pounds of butter. This butter was of light color, and salt, only about one-half as much of each being used for this Paris Exposition as for our trade in Maine and Boston. The butter scored perfect except flavor, which lost inevitably by changes, travel, and length of time before being scored.—*Chicago Dairy Produce.*

Protecting Cows from Flies.

The question of flies on stock—particularly the horn fly on cattle—has for the last few summers set many minds at work considering what is best to do about it.

Not only has there been serious loss from cows failing in milk, but young cattle and finishing steers stood still or receded during the three or four weeks the past summer when the flies were at their worst. During the past summer, Prof. W. L. Carlyle, Wisconsin Experiment Station, conducted an experiment to determine the relief from flies by stabling. Fourteen cows were divided into two lots as nearly equal in every respect as possible. During the daytime lot 1 was kept in a small paddock having an abundance of shade, and lot 2 in a comfortable stable provided with screen doors and windows. In other respects the two lots received the same treatment. The cows in lot 1 were constantly on the move fighting flies, while those in lot 2 were practically free from them. During the four weeks which the experiment lasted, lot 2 (stabled) consumed 835 lbs. more of green sorghum and sweet corn than lot 1 and lost on an average 19 lbs. more in live weight per cow. Comparing the results of the first two weeks of the experiment with the results of two weeks preced-

ing, the yields of milk and butter-fat of lot 1 decreased respectively 40.4 and 2.16 lbs., and of lot 2, 56.7 and 0.81 lbs. Similar results were obtained in comparing the first and fourth weeks of the experiment.

POULTRY.

Notes for October.

October is the month to prepare for winter. If you neglected to whitewash your coops last month, it is not too late now; add an ounce of carbolic acid to each pailful of wash. Gather your road dust and fill your dust boxes full; also store an extra supply of this valuable article for winter use. Remember that next month it will be too late. Repair your houses, windows, roofs and doors, and make all weather-tight. Kerosene your roosts, upper and under sides. Separate your early-hatched pullets, placing the number in each coop you wish to leave there all winter. They will soon begin to lay, and must not then be moved. Weed out all deformed and useless chickens; cull close; do not feed dead wood. Keep only your best specimens for next spring's breeders. Watch your moulting hens, and if some look and act dull, and their combs are dark, put a little tincture of iron in drinking water.—*Country Gentleman.*

Begin Poultry-keeping on a Moderate Scale.

Especially among beginners in poultry-raising, too little attention is given to the dangers of overcrowding, and too many chickens are annually lost through the ills and diseases which come from this cause. It is amazing to see with what rashness beginners approach the poultry business; calculations are made on raising up into the thousands of chickens the first year, with the result that the enterprise is abandoned, or nearly so, before the end of the first twelve months. The experienced and practical poultryman requires no advice on the subject. A word of warning to others may result in some good by showing the importance of commencing on a moderate scale and enlarging as experience dictates. As a matter of fact, the man who produces five hundred thoroughly good chickens in a season is doing quite a business in poultry, and where this is done, there certainly is a much better chance for the producer to go forward to larger numbers successfully than where more is attempted at the beginning without proper calculations as to the ultimate results.

Trouble arises when too much stress is laid upon numbers and too little upon quality. A flock of one hundred chickens properly housed and cared for will at maturity show a larger profit than three times that number stunted and poorly matured through unwholesome restrictions in their housing, range, or food.

Liberal range is of first importance, for without it we cannot get best results in fertility and vigor. Close confinement not only tells upon the growth, but the plumage and health which go with larger, freer range. It is true that as many eggs can be got from hens kept in close confinement and fed stimulating forcing foods as can be had from fowls having larger range. There is, however, something further than the mere point of egg production to the average poultryman. This is the reproduction of the flock, and it is impossible with any animal living to get the same strength and vigor and the same proportion of desirable reproduction where the parent stock have not suitable exercise, abundant fresh air, and proper food. Thus, while satisfactory egg production may be had from the closely-



IMPORTED OXFORD DOWNS.

Shearling ram and pair of shearling ewes, first-prize winners at Toronto and London. PROPERTY OF J. H. JULL, MOUNT VERNON, ONT.

confined birds, every fact goes to prove that a very few generations of this method of keeping will undermine and ruin the constitution of the birds; there will be a falling off in reproductive vigor, the eggs will be more infertile, germs will be more and more lacking in stamina, a larger percentage will fail to reach the piping stage, and a greater pro-

FOUNDED 1866

liberally in the s for market. It cold sloppy food cause indigestion and feeders feed ink in a separate t a time than is e likely to prove ven a run out on e time where they e grit, it will be althy. The treat- r to carry them st condition for tters is another summed up in a g iver ample room l feed mainly on slight mixture of fitably be added has been passed ndfuls of corn o d once a day will courage masticate proper diges- s effect upon the

Indicator.

gnizes the relative t go to make up has a particular tress in judging a am very partial dairy cow. That of the ear, nor is of the tail, nor the the udder and its in my estimation, dairy cow. I think ant than all others actual production. see cows with an e her udder is not e in direct propor- lacking. But do h well developed ly natural that as gland, the greater eater will be its eeders of dairy n to the develop- eeding. In order wily to have some udder is ideal in fessor Howard.

Mer, Ont., and Hirs.

ed report of milk- held at the East t.; also the Straf- he same as at the he exception of a one point for each This change was ing for a shorter ow. a time when some filling their silos, very strong. The W. Stratton, of ph.

	Days Milking.	Total points.
52	1.35	48.322
46	6.30	40.276
44	2.00	38.064
36	7.10	25.816

21	9.50	46.024
14	8.60	45.344
88	8.75	45.408

00	8.25	22.2100
20	10.00	25.3420
76	9.75	24.3276
		71.8796

80	6.30	14.2510
04	7.25	20.7304
12	6.95	22.0772
		57.0616

24	8.95	20.1224
18	7.15	16.3368
84	5.95	11.6384
		48.0976

80	10.00	17.3080
12	5.45	14.3812
11	6.15	12.6044
		44.2936

portion of those which pip will fail to get out and be strong, lively chickens. Of those that do hatch, a larger percentage will die, even where the parent stock are kept under the proper conditions. To get good market results, free range is not absolutely necessary, but we think there is little question that free, green range is the ideal condition for breeding birds, though fowls kept under moderate confinement, with an abundance of green food or a good grass run, will produce better hatching eggs than those deprived altogether of these conditions.

In discussing the subject of feed and range for commercial poultry, in the *Reliable Poultry Journal*, Mr. Geo. Pollard, an extensive Massachusetts poultryman, says:

"The very best market poultry which is produced comes from birds raised on a green range and fed largely on corn or corn meal and some form of animal food. It is altogether a mistake to suppose that in ordinary locations fowl can pick up enough worms, insects, etc., to supply them with the requisite animal food to give the quickest and most profitable growth. The same holds true of prolific egg production. To get the best results in either case, a liberal supply of animal food in some form must be provided. This matter of green range is one which has dashed the hopes of many a fancier who breeds and raises white birds. It is almost impossible to get birds that will stand the range necessary to get the best fertility and stamina in the breeding stock and yet hold the color of the plumage down to that whiteness which alone wins over every other consideration in the show room. There is no question whatever in the mind of the writer that the White Wyandottes and White Plymouth Rocks are being badly strained as practical birds through the intense desire to meet the views of poultry judges with regard to whiteness of plumage, while at the same time there is a strong desire to keep up the best points of their breeding value by the only way in which it is possible to do so, and that is by abundant green range, both for breeding birds and for chickens designed for the production of vigorous breeding stock."

Cost of Feeding Some Chickens.

To make the most profit out of chickens, they should be fed with such food as will provide the quickest growth, yet at the same time not cost too much. If one has the right kind of fowls, they can be fed very cheaply. For instance, a lot of Barred Rock and Brown Leghorn chickens hatched about June 15 were fed exactly the same. The Barred Rock eggs were laid by pullets not a year old, the pen being headed by a cockerel about a year old. The Brown Leghorn eggs were from old hens, the pen being headed by a cockerel. I set twenty-eight Rock eggs and hatched twenty-six chickens. The other 21 chicks in the experiment were Leghorns.

The chicks' first feed was a cooked cake made out of specially prepared food. Then they were fed a little bran and shorts, mixed quite dry. As soon as they were old enough they were given a few oats; after a while a few peas were added. Here is a table showing the exact amount of food consumed:

Kind of food.	Amount.	Cost per cwt.	Total cost
Prepared.....	10 lbs.	\$ 1 00	\$ 0 10
Shorts.....	102 "	75	764
Bran.....	34 "	60	204
Oats.....	136 "	85	1 12
Peas.....	90 "	1 00	90

Total cost of feed consumed, \$3.09.

This cost of \$3.09 is from June 15th until Oct. 3rd, or a little better than 6½c. each. On Oct. 3rd, the Barred Rock cockerels weighed an average of five pounds each, and the Brown Leghorns three pounds each, thereby showing the difference in weight for the same amount of feed consumed. They had pure water before them at all times. By this method of feeding I lost but one chicken, and it was not right when hatched.

S. H. W.
Huron Co.

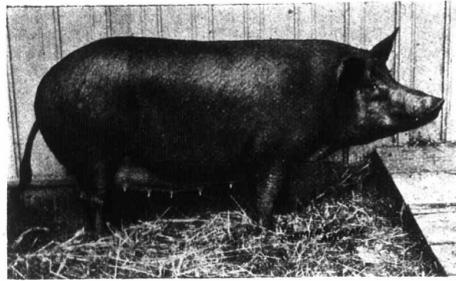
Feather Pulling.

Our attention was drawn to some bad cases of feather pulling and eating a short time ago on visiting a poultry farm where chickens were confined in coops and fed on a mixture of corn, oats and barley in a moistened state. They received no green food nor animal matter of any kind, but to the latter they were helping themselves on the mutual plan. Many were plucked bare in spots, and then they were not satisfied. Another flock confined in a roomy pen, but fed the same as the cooped birds, were active in the same business, but to a lesser degree, probably because they could more easily escape from each other. In a large, outdoor yard, without green food of any sort, was enclosed a flock of old hens that had been used as sitters. These were right into moulting, which was being materially aided by the same vice as those in the coops and pen. The pulling, however, was not confined to the old, loose feathers, but the bristling array of sprouting quills supplied a temptation not easily overcome.

It is only a short step to acquiring the habit of pulling the feathers for the sake of eating them alone. Once the habit is acquired, there is only one effective means of prevention, if the bird is to be allowed to live. A "poultry bit" must be provided, which will effectively prevent feather-pulling. Bits are sold by all poultry-supply houses, or can easily be made at home. A good bit is made

of a piece of soft leather, sufficiently large to prevent the fowl from closing its beak tight enough to pull a feather, but not large enough to interfere with feeding. This bit is placed in the mouth and held in place by a piece of wire passed through the base of the comb. Another, and perhaps better form of bit, consists of a piece of soft wire bent to fit the upper bill, hooking into the nostrils.

Before applying the bit as a preventive remedy, make sure that the trouble you are dealing with is the feather-pulling habit and not due to depluming mites. When depluming mites are present, the fowls will often stand about picking at each other and occasionally pulling feathers. They evidently do this in the endeavor to relieve their mates from the irritation caused by the presence of the parasites. Any considerable bare area or bald spot on head and neck, breast or abdomen, should lead to an examination for the detection of depluming mites. Often the fowl will be seen pulling its own feathers, and will act uneasy, picking at itself about abdomen and vent and upon the breast. The bared area may not show any unhealthy skin, and may be partially covered with stubs and broken feathers. Examination of the bird will, if mites are present, show little scaly masses about the roots of the feathers around the margin of the bald spot. If these masses of scales are crushed, they break up into a powder composed of mites and debris. The mites are easily seen in the powdery mass by using a magnifying lens. These mites are readily spread through a flock by contact with infested birds. Anointing the infested area with sulphur ointment, or with one per cent. carbolized vaseline, taking care not to cover a large area at one time (as it may injure the bird), will destroy the mites. Another effective remedy is washing the fowl with warm soapy water containing creolin or sheep dip. Use two tablespoonfuls of creolin or sheep dip in half a gallon of water for the first bath. Rinse the bird thoroughly with warm soapy water, and again with pure, clean warm water. Dry the bird with a soft cloth, and keep in a warm place until the feathers are perfectly dry. This will kill all the mites on the fowl, but will not improve the appearance of the plumage. In addition to fighting these mites on the fowls, the poultry house must



FIRST-PRIZE TAMWORTH SOW.

Two years old. Toronto and London Exhibitions, 1900.
PROPERTY OF JOHN C. NICHOL, HUBREY, ONT.

be disinfected and cleaned thoroughly, to destroy any mites which may be harbored there. When any mites are destroyed, vigorous means should be adopted to get rid of them, as they ruin a fowl's plumage. Every case of supposed feather-pulling should be examined for these mites "on suspicion."

APIARY.

Melting Old Combs.

BY MORLEY PETTIT.

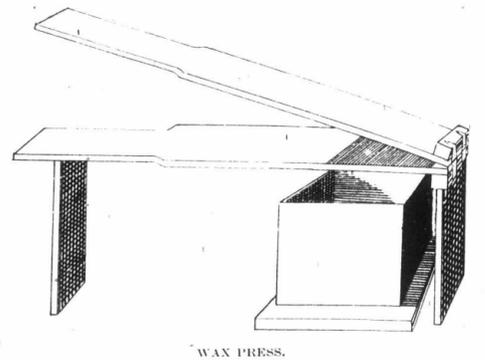
Late October and early November should be spent in winding up the affairs of the apiary. All hive parts which have been used during the summer should, before being stored for winter, be scraped clean of lumps or ridges of wax and propolis. Especially should the combs not in use be sorted and the exposed parts of their frames scraped before storing. While doing this, quite a lot of beeswax can be kept separate from the propolis and saved.

We divide combs into three classes: 1st, brood combs; 2nd, extracting combs; and 3rd, combs to be melted up. Brood combs may have a few drone cells in one lower corner, but otherwise must be all workers, be straight, and contain very little pollen. 2. Combs used for extracting may be partly or wholly of drone comb, but should contain no pollen. If a comb would belong to this class except for patches of pollen, cut them out and let the bees fill up the holes next summer with new comb.

In class 3 are the ones rejected from 1 and 2; combs heavy with pollen, old, crooked and unfinished combs. These are cut out of their frames and melted up. Where two or three rows of cells next the top bar are good worker cells, leave them in the frame as a starter for the new comb next season. These useless combs, and all odd bits of wax, may be melted and purified into nice bright cakes of commercial beeswax.

First put them into a rather long, narrow box, and pour cold water over them to clean them as far as possible of pollen and whatever else the water will carry off. Chop them fine with a spade, and scrape to one end of the box, which has been raised higher than the other to allow the pollen-water to drain off. Change the water often for two or three days until the mass is thoroughly soaked and washed. Then put it into a caldron kettle, with enough water to float it nicely. The kettle should be in an arch, which prevents the fire coming higher up the sides than the level of the contents, else the wax may burn at the edges. When the mass has boiled well for a few minutes, press out the pure wax.

To do this you need a bag of burlap, such as binder twine is shipped in, about 10 in. x 18 in., with



two loops at the top to hold it open by when pouring in the hot wax. The press is made of two strong boards, 1 in. x 1 ft. x 5 ft., laid one on the other, and strongly hinged together at one end, the other ends being trimmed down for handles. Sharpen a board and drive it into the ground beside the kettle for the press to rest on, and another for the end of the lower handle. Let an assistant hold the bag open while you dip it about three-fourths full from the surface of the kettle with a dipper, then lay it in the press with the open end folded under. Strips of wood ½ inch square and ¼ inch apart are nailed across the lower jaw of the press where the bag rests on it. Under the press a tin box about 20 inches each way has been set to catch the wax as it runs out. Press by putting your weight on the upper lever; shift the bag, and press again. This may be repeated until the beeswax is practically all out. Empty out the refuse which remains in the bag, refill from the kettle and press again. Repeat the operation until nothing remains in the kettle but hot water. Now wrap the box in old quilts or anything to hold the heat and cause it to cool very slowly, to allow any dross which may still remain to settle to the bottom of the wax. If it remains liquid for several hours before forming a cake, the under side will be found coated with a dark substance, which should be scraped off before selling the wax.

Be sure to choose a still, mild day for melting up old combs. With a cold wind it is almost impossible to get the wax pressed before it "freezes" all over the press and hangs in icicles in the box.

ENTOMOLOGY.

Red Spider's Injuries.

In various localities in the Province of Manitoba there have been noticed during the past summer, on many plants, but particularly upon raspberries, roses and plum trees, diseased and blotched leaves which were either entirely yellow or spotted. In most instances this injury was thought to be by a new fungous disease, but upon examination in all cases submitted, the cause of the trouble was found to be the spinning mites, which are classed in a general way under the head of "Red Spiders." It has been observed that these insects increase much more rapidly and do more injury in hot, dry seasons, and during the hot months of the summer, than in the cool, wet seasons. The larger number of complaints came in from Manitoba during the month of August, and were most of them concerning attacks upon raspberries. The leaves were noticed to turn yellow and then dry up, at first on the old wood, and later the leaves on the young shoots were also affected, and there was considerable anxiety as to whether the fruit crop for next year would be affected. On some canes, where all the leaves had been destroyed, it was noticed by Mr. G. H. Greig that new leaves were coming out again towards the end of August. Mr. Lyall, of Portage la Prairie, reported that raspberries, sweet peas and many other plants throughout his neighborhood were badly affected.

The abundance of red spiders in Manitoba and in many parts of the Northwest Territories during the past season is doubtless due to the exceptional drought which has prevailed throughout the West this summer. There are always a certain number of these spinning mites to be found on vegetation in all parts of Canada, but when the conditions are favorable for their increase, they multiply with incredible rapidity, and become a very trouble-

some pest of the fruit-grower and gardener, particularly in greenhouses. The female lays from five to ten eggs a day for about two weeks, the eggs hatch in three or four days, and the insects are full-grown in about ten days. The eggs are laid in large numbers upon the food-plants, and the mites nearly always occur on the under sides of the leaves, beneath a light web, which is spun over the lower surface of the leaf. The name red spider has been given because some of the forms are of a bright scarlet color. By far the most numerous form is white, with small, dark marks on the back, and the insect has a greenish color after feeding on vegetation. These insects are exceedingly small and difficult to detect without a magnifying glass. Like all the true mites, they have four pairs of legs when mature, and only three pairs up till the last moult. Red spiders are often the cause of considerable loss among small fruits, bushes denuded of their leaves neither maturing their fruit properly during the year of attack, nor laying up nourishment enough to bear well the following season. The harm they do is sometimes great, because they are small and difficult to notice, and are thus frequently overlooked until a considerable injury has been done to the foliage of the plants upon which they occur, and secondly, because they are very difficult insects to destroy. There are two methods of combating them. The first consists of spraying the affected plants with an emulsion of coal oil and soap suds, or coal oil and milk, and the other of dusting the bushes with a dry application of sifted wood ashes, lime or powdered sulphur, or a mixture of one of the first two of these substances with the last named, in the proportion of one pound of powdered sulphur mixed with ten or fifteen of finely-slaked lime or wood ashes. This must be thrown well up under the leaves, and three or four applications must be made at short intervals. When red spiders have occurred one season, they are liable to appear again the next year, and although this is by no means certain, it is well to be sharply on the lookout to treat plants early in July, as soon as the mites are noticed on the lower leaves.

Central Experimental Farm. J. FLETCHER.

GARDEN AND ORCHARD.

Fall Work in the Garden.

The autumn being a busy season on the farm, too often the garden patch is left till spring in the same condition as when the crops were removed. On light, well-drained soil, there is not so much objection to this as where the land is of the heavier class. We recently paid a visit to an extensive market garden near London, the soil of which is chiefly of the stiff clay sort. It is all thoroughly underdrained with three-inch tiling, thirty feet or less apart in some lower portions. To have proper underdrainage is of first importance, as by thus lowering the water table, the space for root range is very much increased, and with all vegetables this is of greater moment than we are inclined to think. The roots of beets, carrots, tomatoes—in fact, of all vegetables—run down several feet in search of food and moisture in porous soil, so that the deeper the open soil the greater the field given the plants from which to appropriate food.

Another important factor in a successful garden is to keep the soil well stocked with humus in decaying vegetable matter. To this end the proprietor of the garden referred to used stable manure, spent hops, etc., liberally, and not only that, but he grows and plows down heavy crops of lucerne clover, the roots of which going down several feet produce a good effect in opening the soil for the circulation of air and moisture. The lucerne is usually plowed down in spring for late crops. Before winter sets in all land for onions, beets, potatoes and other vegetables is well manured and plowed in narrow lands well set up to facilitate drainage. For such crops as cabbage and cauliflower, and where the soil is particularly heavy, the surface is plowed into drills by throwing two furrows together or by cutting and covering. The object of this is to increase as much as possible the surface exposed to frost, so as to destroy the grubs that infest these plants, and also to mellow the soil by the disintegrating action of the frost.

As is becoming the general custom among good gardeners, onions are grown year after year on the same soil: the land is worked only a few inches deep; just when the manure is worked in before winter, and it sometimes pays to add a sprinkling of bone dust when the crop is planted in spring. This crop, like wheat, requires a firm, rich soil, with a mellow but firm seed-bed.

The asparagus bed requires different treatment from any of the other garden crops. Before winter, all that is done is to trim off all the plants about level with the ground and leave till spring, when the surface is cultivated and a dressing of salt given.

In the garden, as elsewhere on the farm, care should be taken to turn under or burn up all weeds, stalks, leaves, vines, etc., in the fall, thus destroying the harbor for many insect and fungoid pests. This applies to the raspberry patch, from which all dead wood and vines infested with anthracnose or fungus should be cut and burned. The vines showing anthracnose should have been removed immediately

after the crop was taken, but where it was then neglected, it should be attended to now. Affected plants are easily recognized by cracking and bending or breaking over about half way down the stalk, and at this season clusters of eggs can frequently be seen at one end of the cleft in the stalk.

Some points were gathered in the storing of celery, of which an excellent crop was receiving its final banking on October 6th. By the way, this crop delights in a deep, rich, friable soil, well stored with humus. Even black swamp land will produce good celery, but it must be well underdrained. This crop is taken up about the end of the period of growth and stored in cellars with earth floors. It is set upright and packed closely together in rows two feet wide, separated by boards. When it is to be kept till late winter, it should be packed in not wider than 14-inch rows, so as to avoid decay as far as possible. The cellars we visited had shelves about 3½ feet up from the floor. These will be covered with a 3-inch layer of soil before the celery is put in. One object in packing the stalks closely together is that the green ones may become blanched. This goes on for two or three weeks after the crop is stored, when good ventilation must be allowed, as much heat is generated. As the cold weather approaches, the ventilators must be closed up. The ideal temperature for a celery cellar is about 35 degrees Fah., at which the stalks will keep throughout the winter in first-rate condition.

Experience with "Black Spot."

This disease is exceptionally abundant in Nova Scotia the present season upon almost all varieties of apples, and this, in many cases, in spite of the fact that the orchards were sprayed. Yet, a careful study of the spraying in the different orchards, and a consideration of the season just passed, will in almost every case give us the explanation of the lack of success in spraying, and in addition, some valuable points for future use. The spring opened with an usual spell of wet weather which lasted until nearly the end of May, at which date the blossoms were almost ready to open. From this time on, throughout the season, the weather has been almost ideal, with scarcely enough rain to keep crops growing at their best. Under these conditions one would expect that the growth of the "black spot" fungus (*Fusicladium dendriticum*) would be much more rapid; that it would spread faster in the early spring than later, and that early spraying would be necessary in order that apples should be free from this disease, since spraying is always a preventive and not a cure. And what have been the facts? During the early rainy spell, very few orchardists did any spraying, for the reason that even when it was not raining the soil was so wet as to make it difficult to get into the orchard, and as a result very few orchards were sprayed until after the blossoms fell. In a few cases, however, growers were sufficiently enthusiastic to spray between the showers, and did the usual spraying before the blossoms opened. In almost every case where an orchard was thus sprayed once or more before the trees blossomed, the fruit is fairly free from the "black spot," but where these early sprayings were not made, the fruit is badly spotted in spite of later sprayings. Two instances will illustrate this. Mr. John Donaldson, of Port Williams, sprayed his orchard twice, once before the blossoms opened and once after they fell, with the result that he has a very clean crop of apples. One of his neighbors sprayed his orchard three times, the first application being just after the blossoms had fallen, and the other two at intervals of ten days or two weeks, and yet his apples are very badly spotted. These are only fair samples of the general experience of Nova Scotia growers the present season, and though there are the usual instances of inexplicable failures (at least, inexplicable from the known facts), yet, in general, the year's experience, if rightly interpreted, strengthens, rather than weakens, the cause of spraying.

F. C. SEARS.

School of Horticulture, Nova Scotia.

Importation of Nursery Stock.

It has been officially announced that the Dominion Minister of Agriculture, Hon. Mr. Fisher, has completed arrangements for the fumigation of fruit trees at the ports of entry where, under the San José Scale Amendment Act, nursery stock may now be imported into Canada. These points cover all the important places in Canada where fruit trees are brought in from the United States and other countries from which such importations were prohibited owing to San José scale. Superintendents have been appointed and fumigating chambers built at St. John, N. B.; St. John's, Que.; Niagara Falls and Windsor, Ont.; Winnipeg, Man., and Vancouver, British Columbia.

The season this autumn during which the importation of trees will be permissible is from Oct. 1st to Dec. 15th. The treatment of all trees is done entirely at the Government's expense, and although the gas used is intensely poisonous, it can be applied by experts such as the Government superintendents with perfect safety and to the destruction of all insect pests.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

COWS GIVING BLOODY MILK.

T. M., Bruce Co., Ont.:—"You would much oblige by giving a remedy for the following trouble: We have two cows giving bloody milk out of one quarter of their udder for a week. One is much worse than the other, giving nearly pure blood sometimes, and it is with great difficulty that the clots can be got from her sometimes. Is it caused by a rupture of a blood vein?"

[Bloody milk is caused by rupture of small vessels in the udder, caused either by external violence or inflammation of the gland, or a congenital weakness. Milk the affected quarters three times daily. Feed lightly, so as not to cause a large secretion of milk. Give three times daily as a drench: 1 oz. tincture of iron, shaken up with a pint of cold water. If the weather remain warm, it will be good practice to bathe the quarters with cold water. The condition is very liable to recur.]

J. H. REED.

INDIGESTION, FOLLOWED BY INFLAMMATION OF THE STOMACH AND INTESTINES, IN STEER.

F. R., Brant Co., Ont.:—"I turned my cattle into the orchard on Saturday. On Monday they all, except the cows, seemed sluggish, and did not get up until late in the morning. On Tuesday they seemed all right, except one which did not go off with the others. However, he got up when I went to look at him, and I drove him, with a little coaxing, down the lane towards the others. Next midday we found him dead. When turned over, some bloody water ran from the mouth, and part of the back bowel was projecting from the anus. When opened, the gray cutaneous lining of the first and second stomach would peel off and tear at the merest touch. A small part of the jejunum was a dark red. In the orchard and clover stubble adjoining, to which the cattle then had access, is a swampy place where much peppermint grows. Is it likely that the animal had eaten some poisonous weed? If so, could you give me any idea of what the plant might be, that I might look for it, and much oblige."

[Your steer evidently got something to eat that caused indigestion. It may have been the change of food, especially if the clover mentioned was plentiful. A sudden change of food often causes digestive trouble. The others that showed symptoms of sickness either had not eaten so much or had sufficient vitality to recover. It would have been good practice to have given each animal that showed signs of sickness a good purgative of Epsom salts at once: 1 to 2 lbs., according to size. It is not probable the animals got any poisonous weed, but the digestive trouble caused inflammation of the mucous membrane of the digestive tract, resulting in death.]

J. H. REED.

Miscellaneous.

BORERS IN PLUM TREES.

D. McG., Bothwell Co., Ont.:—"What remedy is there to destroy borers in plum trees?"

[When borers have become established in plum trees, the only practical means of combating them is either to cut them out with a sharp knife or else to follow them up in their burrows with a piece of wire. Injuries from this insect may be prevented by applying, late in May or early in June and again about three weeks later, a strong solution of soap suds to which has been added a little crude carbolic acid. This mixture is made by mixing one quart of soft soap or about a pound of hard soap with two gallons of soft water, heating to boiling, and then adding a pint of crude carbolic acid. This should be thoroughly applied with a rough brush after the loose bark has been scraped off. The object of the application is to prevent the laying of the eggs from which the grubs hatch.]

BROME OR RYE GRASS FOR PASTURE?

R. S., Sheep Creek, Alta.:—"I wish to seed down a large field for pasture. Which do you prefer for this purpose, Western rye grass or Brome grass, and how should I prepare the land and sow the seed?"

[For hay purposes there is very little difference in the value of Brome grass and Western rye grass, but for pasture Brome grass is decidedly the best of the two. If Brome grass is used it is not essential that you take off a hay crop. Our usual plan is to plow stubble during the months of May or June, harrow once, sow the seed broadcast at the rate of 15 pounds per acre, then harrow a second time. A number of weeds will come up before the grass is seen. These should be mown down, leaving the cuttings on the ground. Sometimes it is necessary to run a mower over the land a second time. By the end of August the grass will be sufficiently established so that you can turn your stock upon it and it can be pastured until winter. We do not find it a good plan to sow grain with the grass seed, as the grain takes so much moisture that the grass is stunted.]

S. A. BEDFORD.

Brandon Exp. Farm.]

NO MORE C. P. R. FREE SIRES.

E. E. G., Russell, Man.:—"Having seen in the columns of your valuable paper that the C. P. R. has in the past made a practice of furnishing the farmers of Manitoba with pure-bred sires, I would like to know if they still continue the practice, and if so, how would a person go about getting an animal? Wishing the FARMER'S ADVOCATE every success."

[The above question was submitted to Mr. F. T. Griffin, Land Commissioner of the C. P. R., who answers as follows: "I understand that it is not the intention of the Company to distribute any thoroughbred stock next season."]

TREES FOR LIGHT SANDY SOIL.

W. S., Stockton, Man.:—"I wish to plant out a buff of trees, interspersed with shrubs, on light sandy land. Will you kindly suggest some suitable varieties of trees and shrubs for this purpose, and also state whether I should replace the light soil with black loam or use manure to enrich the land; also, what tree would you recommend to sow on this class of soil?"

[The following trees do well on sandy soil if the land is well cultivated: Russian poplar, Siberian poplar, common native poplar, spruce, and ash-leaved maple. The following shrubs can be planted in among the trees: Artemisia (old man), spiraea, lilacs, and caraganas. If the soil is very light, a little black loam should be mixed with it; if only fairly light, a good coat of thoroughly-rotted manure spread all over the land should be sufficient; but the principal dependence should be in cultivating. Not a weed or blade of grass should be allowed to rob the trees of moisture. Ash-leaf maple seed is the only one that should be sown on this class of soil. S. A. BEDFORD, Brandon Exp. Farm.]

RIGHTS OF HIRED MAN.

SUBSCRIBER, Deloraine, Man.:—"Will you please inform me through your paper if a man hired to a farmer by the year is supposed to be on the farm every Sunday to do the chores. If he goes to church in the afternoon and does not get back till dark, can he keep back his wages for lost time?"

"2. If a team of horses runs away and hurts a man in my employ, am I supposed to pay him his wages while he is not able to work?"

"3. How many holidays is a man supposed to have, hired by the year?"

[When a man is hired by a farmer as an ordinary laborer, he is supposed to do the customary work on a farm, which will include the chores on Sunday, and if he wishes to have Sunday off, he should stipulate for that when making the agreement.

2. When an employee has a temporary illness, under a permanent contract, the master is liable for the wages, but not where he is engaged by the day or week.

3. A man hired on a farm is not legally entitled to holidays.]

MARKETS.

Chatty Stock Letter from Chicago.

FROM OUR OWN CORRESPONDENT.

Following table shows current and comparative live stock prices:

Beef cattle.	Extreme prices now.	Top Prices		
		ago.	1899	1898
1500 lbs. up.....	\$5.20 to 6.00	\$5.75	\$6.95	\$5.75
1350 to 1500 lbs.....	5.00 to 6.00	5.85	6.85	5.80
1200 to 1350 lbs.....	4.60 to 5.90	5.80	6.55	5.70
1050 to 1200 lbs.....	4.40 to 5.80	5.75	6.40	5.60
900 to 1050 lbs.....	4.35 to 5.60	5.55	6.25	5.50
Fed Westerns.....	4.75 to 5.65	5.70	6.95	5.65
Stillers.....	5.10 to 5.50	5.30	5.55	5.00
Stockers and feeders.....	2.50 to 4.75	4.75	4.75	4.70
Hogs.				
Mixed.....	5.00 to 5.35	5.70	4.75	3.92
Heavy.....	4.85 to 5.42	5.62	4.75	3.92
Light.....	5.10 to 5.45	5.70	4.80	3.92
Pigs.....	3.50 to 5.15	5.25	4.75	3.75
Sheep.				
Natives.....	2.50 to 4.15	4.25	4.10	5.00
Western.....	3.00 to 4.25	4.25	4.00	4.60
Yearlings.....	4.00 to 4.25	4.25	4.10	4.15
Native lambs.....	3.50 to 5.40	5.75	5.35	6.35
Western lambs.....	4.00 to 5.10	5.25	5.15	5.60
Feeding sheep.....	3.25 to 4.00	4.00	3.80	4.30
Feeding lambs.....	4.10 to 4.75	4.70		

A well-known feeder from Cass County, Iowa, had in four cars of good heavy cattle. He says the cost of feeding cattle and corn are too high for feeders. Old corn 30c. to 31c., and new corn starting at about 25c.

Another Chicago man, back from a trip to one of the best feeding regions of Iowa, says he was surprised to see the number of good heavy cattle that were fed for a year, which feeders feel will not pay out at present prices.

The big cattle feeders are holding on to some of their big droves of cattle, that ordinarily would have been marketed several months ago. These cattle are getting heavier every day, of course. When the complaint of buyers is that many of the best cattle are already too heavy, with corn sure to be dearer, it looks as if buyers ought not to be too severe upon owners of big cattle, or next year they will be looking in vain for the kinds they now say are "too heavy."

The bulk of the store cattle are selling 25c. to 40c. lower than a year ago, though the top price for good feeders is not much different.

Hog prices are not to be complained of. The packing season is well on, and instead of packers being able to make the usual breach in prices, they find themselves confronted with moderate supplies of good hogs, a big demand from all quarters, with diminishing instead of accumulating stocks of provisions, and what looks like another "corner" in mess pork.

Sheepmen are confronted with the high-feed problem, and are wondering whether they will be repaid for putting so much money into making mutton. The demand for feeding sheep and lambs is so strong as to leave a very small margin between prices for such stock and the ripe, heavy sheep and lambs. For instance, some feeders recently offered \$1.70 for 1,500 Utah lambs, that sold to slaughterers in the Chicago market at \$1.75.

The general live-stock situation looks fairly good, but it will take some nerve to do business this winter.

Toronto Markets.

The falling off of the supply of cattle fit for export is very marked in the monthly returns. There is no doubt that this class of cattle will have to be better fed and of better quality to make the trade remunerative. There has been more money lost in the export cattle business than any other that we know of; more men gone under than we care to recount. Mr. Wm. Levack has paid the penalty of ruined health and depleted fortune. A more shrewd buyer and better judge of export cattle does not attend this market. His failure is announced to the amount of over \$100,000, whereas he could have left off business two years ago with twice the amount in hard cash.

Export Cattle.—One hundred and seventy U. S. cattle were unloaded, rested and fed at the market, a very choice lot of cattle. Such a number is never seen on this market Canadian-bred. We only wish that our farmers would take the same pains to breed up their cattle as they have done in the past few years to improve their hogs. As one of the men said on looking over our pens: "My word, what a level lot of hogs you do get. They must be culled before they reach this market." He was surprised when we informed him that they were our general run. Owing to the lack of offers, export cattle fell off 20 cents per cwt. since our last report. They are now quoted, for choice, at \$1.30 to \$1.50 per cwt. Light export cattle sold at \$1 to \$1.25, and have gradually come down from \$5.10 per cwt. to two weeks, and have gradually come down from \$5.10 per cwt. to \$4.25 per cwt. Mr. McLaughlin sold 8 export, 1,211 lbs. each, at \$4.25 per cwt. Mr. A. Ironsides sold three loads of Manitoba cattle, 1,175 lbs. average, at \$3.40 to \$3.75 per cwt. Mr. A. M. Buck bought one load of exporters, 1,250 lbs. average, at \$4.50 per cwt.

Butchers' Cattle.—Loads of good butchers' cattle sold readily. These equal in quality to export, weighing 1,000 to 1,100 lbs., sold at \$4.40 to \$4.60 per cwt. Good butchers' cattle sold at \$4 to \$4.25 per cwt.; medium butchers' mixed steers, cows and heifers, \$3.50 to \$3.75 per cwt. Some common butchers' cattle sold down to \$3 per cwt. Very poor rough cows, scrub bulls, sold down to \$2.50 and \$2.75 per cwt. Mr. Alex. Levack bought 25 butchers' cattle at \$3.50 to \$4 per cwt.; Mr. Crawford, two loads of butchers' cattle, 1,000 lbs. average, at \$4.25 per cwt.

Bulls.—Heavy export bulls sold at \$4.12 to \$4.25 per cwt.; light export bulls at \$3.12 to \$3.35. Messrs. Dunn Bros. bought 11 feeding bulls, 1,100 to 1,200 lbs. average, at \$3 per cwt. Mr. Halligan bought five loads of feeding bulls at \$2.50 to \$3.25 per cwt., average 1,100 lbs. each.

Feeders.—Good heavy feeders, extra quality, for feeding purposes, in demand. Those weighing 1,100 to 1,200 lbs. each sold well, at from \$3.60 to \$3.75 per cwt. Light feeders, steers weighing from 700 to 900 lbs., sold at \$3.25 to \$3.50 per cwt. Mr. Hunnisett bought three feeding bulls at from \$3 to \$3.25 per cwt., average 1,140 to 1,250 lbs. each.

Calves.—Good veals wanted. Very few on offer, at from \$3 to \$5 per head.

Lambs.—Spring lambs were easier, at from \$2.50 to \$3.25 per head; per bunch at \$3.75 to \$4 per cwt.

Cows.—A steady demand for choice milkers and springers, only 12 on offer; top price \$50 per head, at from \$30 to \$45 each.

Hogs.—Deliveries very light; 781 on offer; all sold at firm prices. Best select bacon hogs, singers, not less than 160 lbs., not more than 200 lbs., and of good off cars, at \$6.25 per cwt. The above indications that competition amongst the packers will force the price up again. We look for \$6.50 next week, and a further advance next. In fact, should not be surprised to see the price go again as high as seven cents. Thick fats sold at \$5.50. Unculled car lots sold at \$6 to \$6.20 per cwt. We heard of one lot of hogs fetching \$6.40 per cwt., but not confirmed. It was reported on the market that the London and Ingersoll were paying \$6.40 for choice, but it could not be confirmed by telegraph. We advise all holders to sell at once.

	Comparative prices to-day.		Same date last year.	
	2 weeks ago.	last year.	Oct. 11, 1899.	Oct. 11, 1898.
Export cattle.....	\$ 4.10	\$ 4.37	\$ 4.35	\$ 5.10
Butchers' cattle.....	4.25	4.25	4.40	4.35
Stockers.....	3.10	3.10	3.40	3.50
Feeders.....	3.80	4.00	4.00	3.50
Sheep.....	3.40	3.50	3.50	4.37
Hogs.....	6.40	6.25	3.80	3.80
Lambs, each.....	3.50	3.50	5.00	4.00
Milk cows, each.....	50.00	50.00	45.00	45.00

Dressed Hogs.—Prices for dressed hogs firmer, deliveries about 500; sold at \$8.25 to \$8.50 per cwt. for choice, bright stock. This is an advance of 25c. per cwt. since my last report, and prospects good.

St. Lawrence Market.—Receipts of farm produce were larger; 6,000 bushels of grain, and large quantities of fruit, vegetables, etc.

Wheat.—One thousand five hundred bushels of wheat sold at 69c. to 69½c. per bushel. Two hundred bushels of red sold at 69c. per bushel. One thousand bushels of goose wheat sold at 69½c. per bushel.

Barley.—One thousand bushels of barley sold at 49c. to 45c. per bushel.

Oats.—Two hundred bushels of oats sold at 28c. to 29c. per bushel.

Rye.—Three hundred bushels of rye sold at 53c. to 54½c. per bushel.

Hay.—About 15 loads each market day, sold at \$11 to \$13.50 per ton.

Straw.—One load sold at \$11.50 per ton.

Butter.—Deliveries large, prices a little easier, at 29c. to 26c. per lb. for choice creamery.

Eggs.—Choice new-laid eggs are scarce. Prices advanced, at 17c. to 18c. per dozen, and at 22c. to 23c. per dozen from farmers.

Poultry.—There is always a good demand for choice, well-fed poultry. The Canadian Produce Co. have removed to larger premises on Front street, and are now prepared to take all on offer for export. Dr. Boulbee is the head of the firm, and devoting all his time and energy to the export trade, as well as fattening by the cranning process. Messrs. Gurn & Harris will again ship turkeys for the Christmas trade in the Old Country. They are asking for 25,000 choice young stock, to be delivered the first week in November, at their abattoir at the cattle market. Chickens, per pair, 60c.; spring chickens, per pair, 80c.; turkeys, per lb., 11c.; ducks, per pair, \$1; geese, per lb., 9c.

Skids.—Alsike, choice, per bushel, \$8; alsike, good, No. 2, \$7.25; red clover, \$6.25; timothy, \$1.80.

Hides and Skins.—Hides, No. 1, per lb., 7½c.; hides, No. 1, green, 6c.; hides, No. 2, green, 7c.; hides, cured, 7½c.; calf-skins, 8c.; lamb-skins, each, 70c.; wool, fleece, 16c.; wool, unwa-shed, 10c.; wool, pulled, 18c.; wool, extra, 21c.

South American Dressed Meat Landed in England in Poor Condition.

Since writing the item appearing in the Stock department of last issue, referring to the shipment of dressed beef from Argentina to England, word has come that this consignment arrived at Liverpool in a somewhat damaged condition, a portion of it being unfit for food.

The meat was kept in chambers in which the air was sterilized at a temperature about twenty degrees above freezing point. It would appear that on the voyage the shipment suffered from a defect in the application of the system, which, however, the patentee is hopeful of remedying before the next attempt is made.

Apple Market Report.

Messrs. Simons, Shuttleworth & Co., Liverpool, cable today's (Oct. 12th) apple market as follows: "Baldwins, Golden Russets, and Spies, 14s. 6d. to 17s.; Greenings and Ribstons, 14s. to 16s.; 20-oz. Pippins, 17s. to 19s.; Snows and Kings, 18s. 6d. to 21s.; Cranberry Pippins, 18s. to 20s.; Seeks, Canada Reds, Phoenix, 13s. 6d. to 15s. Only fancy, sound fruit made top prices; lower grades and conditions 1s. to 3s. less than lowest. Market opened weak, but closed stronger." Messrs. Garcia, Jacobs & Co., London, cable their apple market: "Baldwins, 13s. to 15s.; Kings, 17s. to 19s. Market is active, and prices firm." High prices will no doubt restrict consumption, and we may see a break in prices before the end of October, although the Halloween demand will probably prevent its being serious.

MISCELLANEOUS.

Treatment of Clover or Other Sod Land in the Fall for Grain or Corn Crop, Etc.

As the work of taking off the crops of grain, etc., has been finished, and as in the majority of cases the harvest has been a bountiful one, the next thing to do is to prepare for a continuation of our successes next year also. To accomplish this and obtain the best results, most of us will have to break up some of our clover or other sod fields, and the question naturally comes to our mind, what is the best treatment of a sod field for a grain crop next season? My way of treating it would be to thoroughly manure it first, spreading the manure as evenly as possible, in the latter part of September or early in October, and then plow it, laying each sod squarely on its back as may be. Then, as soon as I am through with my plowing, I would thoroughly harrow it. This treatment excludes the air, and in a great measure the water also, and while the sod rots nicely, it does not become sour. In the spring I would re-plow it, using a gang plow, set very shallow for grain, but for corn or other hoed crops I would simply thoroughly cultivate it.

If stubble land is tolerably clear of weeds, and we intend to grow grain on it next season, I would adopt the same measures that I would with clover sod; but if it was bad with weeds, I would disk harrow it first, as soon as the harvest was off, and again as soon as the weeds began to grow, allowing it to lie until spring, when I would plow it in the ordinary way. If the stubble land intended for next year's corn or other hoed crop is dirty with weeds, my first effort must be to destroy these as effectually as may be, and to accomplish this I would adopt the following measures: First, gang plow it, not more than four inches deep, having first put on all the manure I could afford. Then I would thoroughly harrow it and sow to fall rye. As soon as the rye was well rooted I would turn my cattle onto it and pasture it until the snow came and covered it. Thus, while it affords pasture, the cattle are top-dressing it with another coat of manure. In the spring, as early as convenient, I would turn the heavy mat of rye sod under, plowing about six inches deep. This treatment will turn up and thoroughly mix the manure first plowed under in the fall, which will become immediately available for the young plants, while the heavy mat of rye turned under will ferment and act as artificial heat in the early, cool nights and days for the roots of the growing crop while it is decaying. In my opinion, this treatment is much more profitable than the sowing of millet, buckwheat, etc., except in the case of very poor, light land, and no means of fertilizing it. Then, I believe it would pay to gang plow it, and after harrowing thoroughly, sow to rape and pasture a sufficient number of sheep on it to keep it eaten down. By this process he gets feed for his sheep which they will relish, and their droppings enrich the land in a most effectual manner.

There is one mistake made by many farmers to which I would like to call your readers attention. It is the pasturing of stock on fields of clover in this year's seeding. This should never be done. In the first place, the tramping of cattle soddens and sours the land, making it unhealthy for the young clover plants. It also punctures the land, leaving holes for the water to lie in in the late fall, which freezes and causes the death of the plants all around them. In the second place, the plants need all the shelter which their first year's growth will afford to protect them in the winter. If the field is pastured and the clover is eaten down close instead of being left to form a mulch for the tender young plants and a protection from the cold, the farmer who practices this will be surprised next season with the poor crop of clover he has. As a matter of fact, it would pay much better to add mulch in the form of manure than to take away its natural protection.

I have been asked my opinion re harrowing, top-dressing and the sowing of clover and other seeds in old worn-out pastures late in the fall. I would say that I believe it would be a waste of time and material to do this in the fall. The proper time to do this is in the early days of September, when the clover seed is ripe and Dame Nature goes forth to sow. I never missed improving an old pasture by thoroughly harrowing in the early part of September, sowing broadcast and mulching with fine manure, and harrowing to cover seed with a green top of a tree weighted with a small log. Then, the first shower which comes, the seed sprouts and takes root, and there is sufficient warm weather left to give it a chance to grow and get well rooted before the bleak, late-fall cold days come.

SAM PETERS.

Perth Co., Ont.



THE CHILDREN'S CORNER.

The Lookout Regiment.

Names of new recruits are: Lida Bowman, Ethel Letson, J. H. Pilkey, Hilda Beaumont, and Jean Rogers.

I must congratulate the company in West Montrose; it is now the largest in the regiment. How would you like to choose one of your number as captain, and let him report progress as to the work you are doing? I think it would be nice to find some child who is likely to be overlooked by Santa Claus, and get a big stocking filled for him by Christmas time. The stocking could be made of black or colored print. Let me know if you decide to do this, and I will gladly send a contribution.

Don't forget that the "Child-Hero Competition" closes on the 1st of November. I am constantly getting letters from children who say they always like to read about the Lookout Regiment. I hope you will all be on the lookout for a chance to play Santa Claus this Christmas. It is great fun if you begin your preparations a good while ahead, then you haven't to hurry at the last.

May I ask J. M. Matchet to let me know whether the prize sent several weeks ago arrived safely? The other prizewinners have acknowledged theirs.

Cousin Dorothy.

Five Little Brothers.

Five little brothers set out together
To journey the livelong day.
In a curious carriage all made of leather
They hurried away, away!
One big brother and three quite small
And one wee fellow, no size at all.
The carriage was dark and none too roomy,
And they could not move about.
The five little brothers grew very gloomy,
And the wee one began to pout.
Till the biggest one whispered, "What do ye say?
Let's leave the carriage and run away!"
So out they scampered, the five together,
And off and away they sped!
When somebody found that carriage of leather,
Oh, my, how she shook her head!
'Twas her little boy's shoe, as everyone knows,
And the five little brothers were five little toes.

A Sailor Lad.

"When shall we know the enemy has given in?" asked a lad, a tailor's apprentice, who had run away from his trade and entered the navy as a common boy, about the year 1680.

"When the flag is hauled down," answered a sailor, "the ship will be ours."

"Oh, if that is all, I'll see what I can do."

At that moment, the ship that the lad was on was engaged in a terrible fight with one of the French squadrons, that lay yard-arm to yard-arm next, and were both obscured in the smoke of each other's guns. In an instant the lad had mounted the shrouds, passed from the yard of his own ship to that of the enemy, and with quick agility ascended to the maintop-gallant masthead, struck and carried off the French flag unseen by anyone, and worked his way back to his own ship in safety. Before he reached the deck, however, the English saw that the enemy's flag had gone, and shouted, "Victory, victory!" The French crew, seeing their color gone, and thinking it had been struck down by the admiral's orders, fled from their guns, and a panic ensued, during which the English boarded the French vessel and captured her.

In the midst of it all, the new boy came down the shrouds with the French flag wrapped around his body, and showed it with glee to his messmates. The news quickly spread to the quarter-deck, and the blushing boy was led into the presence of the admiral, who not only praised him for his bravery, but made him then and there a midshipman. Promotion followed promotion after that, and the tailor's apprentice was afterwards known as Admiral Hopson, one of England's most gallant sailors.

—From "Heroes of Britain."

A Japanese Game.

This game is called "Yimari." It is played with a soft rubber ball. All the children stand in a circle. One player begins the game by bouncing the ball on the ground; if it rebounds against his hand, he hits it again. Probably it will rebound in front of another player, who hits it, and so the game goes on without scrambling or pushing. Any player who fails to hit the ball when it bounds in front of him moves out of the circle and plays no more. The last one left wins the game. Try this game some day when you are tired of the old ways of playing ball.

Epitaph on a Schoolboy.

This epitaph was copied by Bishop Warburton from an old church in England:

"Here lies, to parents, friends and country dear,
A youth who scarce had seen his 17th year;
But in that time so much good sense had shown
That Death mistook 17 for 71."

THE QUIET HOUR.

My Brother's Keeper.

"Rest not in hope want's icy chain to thaw
By casual boons and formal charities!
Learn to be just, just through impartial law;
Far as ye may, erect and equalize;
And what ye cannot reach by statute, draw
Each from his fountain of self-sacrifice!"

I promised to tell you something about the effort that has been made, during the last ten years, to cheer and uplift the poor of New York. As I said before, we can only take a peep at a few of the improvements, for their number is countless. Perhaps the greatest help has been given by men who try to do things on a strictly business basis, giving justice rather than what is usually called charity: men who have built model tenements, which bring in three or five per cent, instead of fifty, in which human beings may live decently and comfortably. Some of these are provided with plenty of baths, free library and reading rooms, and a laundry, where the lodgers can wash their clothes, with every convenience (a great improvement on the old custom of doing the washing in the living-room). All the advantages of these large and comfortable buildings may be had for very reasonable prices. They are not an encouragement to pauperism, but rather help those who are willing to help themselves. The inmates of such tenements are expected to be respectable and self-reliant, and to honestly pay for what they get. Compare these handsome houses, with their small, but clean, comfortable and well-lighted bedrooms, with the old tenements in the "Mulberry Bend." These used to be "jammed with a reeking mass of human wrecks, that huddled in hall and yard, and slept, crouched in shivering files, all the way up the stairs to the attic."

The great lesson of the brotherhood of man is beginning to be learned, and it needs to be pressed home to each one of us, for we are only too ready to fancy, as the first murderer did, that we are not responsible for our brother's welfare.

Special efforts are being made to help the children, who were formerly crowded out of the schools by the thousand. Many millions of dollars have been spent during the last few years on schools; and their need of healthy, happy play is also recognized at last. Playgrounds are springing up in the most crowded localities, where playgrounds were never dreamed of ten years ago. If no other spot can be found, they are perched up on the roofs of the schools. Gymnasiums and skating rinks are not now the luxuries of the rich only. Newsboys are provided with hotels of their own, where they are given a lift if they need it, but are expected to pay back every cent advanced to them. They are so proud of the trust reposed in them that they very seldom fail to justify it. One boys' club started with a handful, and can now count thousands of members. The rough gangs that used to educate boys to be loafers, thieves and vagabonds have evolved into clubs which bring out all the manliness that lies hidden under a rough exterior.

The necessity of doing something for the children is evident when the police records describe the arrest of "burglars" six and seven years of age! A gang of five was once arrested in a bunch, five criminals, all about eight years old! Those rescued by the Children's Aid Society have a very different record; they nearly all turn out respectable and honest.

The worst tenements, which were fairly rotting to pieces, have been pulled down, and small parks have, in many cases, taken their place. Marvellous indeed is the reformation worked by those bits of green. One of the most energetic reformers, who had worked hard to secure these parks, returned after a short absence, to find one in what had been perhaps the worst spot in the city. It was real grass, grass in the "Mulberry Bend!" His delight could not be satisfied with the sense of sight, he must walk on it to assure himself that it was not a dream. Suddenly a policeman's cane was laid smartly across his back, and he was startled to hear the angry command: "Hey! Come off the grass! D'ye think it's made to walk on?"

However, as he says, he had his revenge, having just had a hand in marking five blocks of tenements for destruction, to let in more light. Where they had been, parks were to be made, where the sign, "Keep Off the Grass!" should never be seen. He tried to explain this to the policeman, but all the answer received was a gruff "G'wan now! I don't want none o' yer guff!" The old saying, "Cleanliness is next to godliness," has a good deal of truth in it, too. People are improving since they got a chance to wash themselves. "The great unwashed" prefer to be clean, if they get half a chance. The free river baths admitted more than five million customers during one summer.

A great deal has indeed been done, but there are still many dreary lives both in city and country. Are we doing our share towards brightening them? Are we obeying the command, "Bear ye one another's burdens"? Christ left his glorious home in heaven that He might help men in the truest way—that is, by becoming one with them and sharing their sorrows. Many noble men and women

have followed His example; they could not enjoy luxury while their brothers and sisters were hungry and forlorn. It has been said: "Charity in our day no longer means alms, but justice. The social settlements are substituting *real touch* for the machine charity that reaped a crop of hate and beggary. They are passenger bridges, not mere shuttles for the delivery of coal and vegetables—bridges upon which men go *over*, not *down*, from the mansion to the tenement. We have learned that we cannot pass off checks for human sympathy in settlement of our brotherhood arrears. The Church is hastening to enter the life of the people." We may not be able to devote our lives to this work, but we can all do more than we have done. If the effort should cost us a sacrifice of time or money, or even of a little personal comfort, shall we not say with David: "I will not offer burnt-offerings to the Lord my God of that which doth cost me nothing." No sacrifice made for God is left unrewarded. In this case, certainly virtue brings with it its own reward, for

"All worldly joys go less
To the one joy of doing kindnesses."

Christmas will soon be here. Are you going to make it only a time for presents and extra good food for those who live well all the year 'round, or are you going to stretch your circle of Christmas brightness so that it may include some of the "other half"?

"That vast throng,
The multitude of peoples, nations, tongues,
Shall stand before His throne, and every act
Of human kindness He will own as His,
And crown, as service rendered unto Him."

Recipes.

TO KEEP KNIVES FROM RUSTING.

Rub a little sweet oil on the knives before putting away. Wrap in tissue paper, and keep in a dry place. If the rust has fixed on any of the knives, rub with coal oil.

HASHED MUTTON.

This is a nice way for using up cold mutton. Slice a good-sized onion into a saucepan with a bit of butter. Stir all together until nicely browned. Cut up your meat, and add it to the onions, stirring it until browned also. Cut up a few carrots and turnips in nice pieces, and add them. Now barely cover with water, and simmer very slowly for two hours. Thicken with a little flour, and season to taste. Put in a little browning, if not brown enough, and serve.

LIGHT PUDDING IS VERY WHOLESOME.

Ingredients—Quarter of a pound of bread-crumbs, quarter of a pound of flour dried and sifted, two ounces of sugar, quarter of a pound of mutton suet, four tablespoonfuls milk.

Method—Put suet, bread-crumbs and flour in a basin, beat the eggs and sugar well together, add seasoning and milk, stir well into the dry ingredients, and steam in a buttered mould for an hour and a half. The mould should have a buttered plate and cloth on the top to prevent the water from getting into the pudding.

RECIPE FOR SHORTBREAD.

Mix together ½ lb. flour and 2 ozs. sugar. Rub finely into it 4 ozs. butter. Then begin to knead it hard with your hands till it begins to bind together. No moisture required. Work at it till it is quite soft and easily shaped without cracking. Make it oval or round, as you please, and crimp the edges. Put a piece of buttered paper on a baking tin, place on it the shortbread, and bake in a slow oven till quite brown (pale). It will take about an hour to one and a half. Move it carefully off the paper, and let it get cold.

TO KEEP CISTERN WATER SWEET.

Most housewives know how rapidly the water in a cistern collects impurities, and they also know what a troublesome, though necessary, task the cleaning out of that cistern is. Well, it need not be done nearly so often if you get 6d. worth of charcoal; fasten it up in a muslin bag, with one or two stones, and suspend it in the cistern. The stones keep the charcoal immersed in the water, from which it seems to attract all impurities. If it is renewed say once a month, the cleaning out of the cistern, under ordinary circumstances, need only be done once a year.

A WORD TO THE COOK.

Don't forget to put an apple in your cakebox. Cake can then be kept for weeks without getting stale. Poultry, when served cold, is much improved in appearance by being glazed. Half an ounce of gelatine dissolved in a pint of water and colored with extract of beef makes an admirable glaze. Small glass jars or large tumblers are better than china for jam pots, because should the preserves not keep well, it will be immediately detected. If baked potatoes are wanted in a hurry, boil the raw potatoes for about fifteen minutes, and then place them in a hot oven until done. Cooked in this way, they will be quite as nice as if all the cooking were done in the oven.

Policeman (to tramp)—"I want your name and address." Tramp (sarcastically)—"Oh, yer do, do yer? Well, me name is John Smith, and me address is No. 1 The Open Air. If yer call on me don't trouble to knock, but jist walk in."

Onamea, Hawaii.

This is a world of contrasts, and all the more beautiful because it is so. We are told that not even two leaves are exactly alike in form and shape, even upon the same tree; no two minds in such thorough accord as to be as one, and that even when two pairs of eyes gaze upon the same landscape, the one pair will see beauties to which the other pair is blind, all of which preamble goes to show that the *Advocate* is only following the law of Nature in presenting from time to time in pictorial form some of earth's varied scenes, leaving its readers free to choose which pleases them best. In our last issue we took them in fancy to the mountain peaks of our magnificent Rockies. This time we ask them to come with us to beautiful Hawaii, the "Paradise of the Pacific." Our picture is a fairly typical one of the islands of the Hawaiian group, about midway in the North Pacific, upon which civilization had left no mark until after their discovery by Capt. Cook, some 120 years ago, although in some vague records and charts, hidden away amongst the archives of Madrid, it is surmised that the Islands had at least been sighted by Gaetano about two centuries earlier. Evidently, the rest of Europe knew nothing about them, and the Spaniards themselves must have forgotten their very existence. Capt. Cook at once realized the importance of their position and the value of their resources. Barring a little thievishness, hardly to be wondered at under the circumstances (for it is opportunity

mental eye, the white sands girdling the Island of Onamea, to hear the refrain of the blue waves lapping the shore, to feel the breeze which causes the featherlike palm branches to sway gracefully over head, and to almost long for a plunge into the placid waters of the North Pacific. We say "almost," because a sea bath even at Hawaii is not without its drawbacks. The playful and voracious shark has to be reckoned with, and although the natives are reckless and frequent bathers, and white people are assured that if enough of them go in at one time, or even that one of them may venture in alone provided he makes a tremendous "splashing" of the water, yet we would not advise our readers, should they find themselves on the shore of Onamea, to take any risks. Go to Hawaii, if our picture tempts you to do so, but "ware sharks!" H. A. B.

Wedding Presents.

We have all of us read of, and sympathized with, the newly-married couple who, on "taking stock" of their wedding presents, found that they had seventeen butter dishes, twelve pickle stands, twenty-three butter knives, and ten dozen doylis. The tale may be slightly exaggerated, but there can be no doubt that many young people just starting housekeeping find themselves considerably embarrassed by the number of similar

Spoiling Love Matches.

When your son goes a-courting, or some young man surprises you by paying attention to the little girl you have always thought of as "little Fannie," pause awhile before you decide on opposing their desires and thwarting their hopes. And do not set your face against the match, and make the young people miserable, unless it is really right that you should do so.

There is so much sweetness in the continuance of one's first love—in having nothing to look back upon—no regrets, no old love-letters to tear up, or locks of hair to put in the fire.

A life hardly goes quite right that is cut down to the very roots, and allowed to grow again. Don't say "No" because you do not like the young man's grandfather, or because there was difficulty twenty years ago about that acre of marsh land, or because there was an argument between your aunt Priscilla and the girl's second cousin Sally, which ended in their not speaking to each other, and in saying a good deal against each other to make up for it.

Old feuds, old prejudices, of the stupidest sort, have parted many a pair whom heaven evidently intended to join together. And there are sour old maids and wicked old bachelors who might have been good, happy old couples now if some other old couple in the past had not interfered without good reason.



ONAMEA, HAWAII, H. I.

which makes the thief), the natives appear to have been hospitable and friendly, and Capt. Cook considered them of a type superior to the Polynesians, with whom he had become already acquainted. The newcomers, history tells us, were not wholly without their share of acquisitiveness. If the natives coveted their more civilized weapons and tools, they, on their side, coveted and possessed themselves of the tempting fruits and foods which the Islanders offered in exchange. Reprisals followed, stringent laws had to be enacted, and it was in the carrying out of these laws that Capt. Cook lost his life, "stabbed from behind with one of the iron daggers he had so extensively used in bartering with the natives." To the older folks, who were geographically fed upon the old discarded school-books of the past, Hawaii was known better by the name bestowed upon it by its discoverer, viz., the Sandwich Islands, but if they have followed its history since Capt. Cook cast anchor there, when he was searching for a northern west passage around America, they will know that the Hawaii of to-day has gone through many vicissitudes, survived many internal disruptions, and is a flourishing little Republic, with nearly every advantage offered by the advanced civilization of this more fortunate

The peaceful picture we present to you creates almost a longing to visit Hawaii. It needs but little effort of the imagination to see, with the

articles—many of them of doubtful utility—of which they find themselves possessed. It is, I admit, a dilemma which it is difficult to avoid. Occasionally a younger sister of the bride can be "confidentially" consulted, and a hint obtained as to what present would be really acceptable. Then, again, old friends can study utility more than mere acquaintances. I know a dear old maiden lady, with a very large circle of friends, whose wedding gift is invariably a complete set of brushes—hair brushes, clothes brushes, boot brushes, and brooms of various descriptions. Her present is always acceptable, for it saves the young people buying such articles; and in every part of the house there is something which serves to keep the kind donor's memory green.

Another useful present for a bride is a toilet glove box, with a few pairs of really good gloves in it. The French have a proverb which tells us that a woman who is well gloved and well shod is well dressed; and to the young woman whose dress allowance is somewhat limited, such a gift is doubly welcome, as it saves her pocket, and helps to make her "look nice" during the visits which she pays after her return from the honeymoon.

The principal thing to be studied is the suitability of the gift to the social position of the recipients. Wedding presents should be chosen with care, and with strict regard to the daily requirements of the home which they are to grace.

Good Health.

DAMP ROOM.

To ascertain whether or not a room is damp, about a couple of pounds of fresh lime should be placed therein after hermetically closing doors and windows. In twenty-four hours it should be weighed, and if the lime has absorbed more than about 1 per cent. of water, the room should be considered damp, and classed as unhealthy. "Family Doctor."

GIVE CHILDREN FRESH AIR AND SUNSHINE.

Children should live out-of-doors. They ought to be brought up in the fresh air and sunshine. Without it they droop and die, for "life is a sun child," and its beginnings cannot thrive deprived of its native element. In childhood the foundation is laid for mature life. Pale, delicate, hothouse children, when brought up in the heated atmosphere of the luxurious modern home, have no stamina for the future. A robust, hardy childhood, secured by plenty of outdoor life, even in cold weather, simple, nourishing food at regular hours, without meat, cake, sweets or pastry, clothing that permits of perfect freedom in the making of mud pies and other childish delights, besides the "early to bed" of the old nursery rhyme, would help to lessen the terrible mortality among children, and insure to them some backbone for the needs of adult life.

POETRY---OLD FAVORITES.

Kissing's No Sin.

Some say that kissing's a sin;
But I think it's none at all,
For kissing has won't in this world
Since ever there was twa.
O, if it wasna lawfu',
Lawyers wadna allow it;
If it wasna holy,
Ministers wadna do it.
If it wasna modest,
Maidens wadna take it;
If it wasna plenty,
Puir folk wadna get it.

—Anonymous.

The Chess-Board.

My little love, do you remember,
Ere we were grown so sadly wise,
Those evenings in the bleak December,
Curtained warm from the snowy weather,
When you and I played chess together,
Checkedmate by each other's eyes?

Ah, still I see your soft white hand,
Hovering warm over Queen and Knight;
Brave Pawns in valiant battle stand;
The double castles guard the wings;
The Bishop, bent on distant things,
Moves, sidling through the fight.

Our fingers touch, our glances meet,
And falter; falls your golden hair
Against my cheek; your bosom, sweet,
Is heaving. Down the field, your Queen
Rides slow, her soldiery all between,
And checks me unaware.

Ah me! the little battle's done;
Dispersed is all its chivalry,
Full many a move since then have we
Mid life's perplexing checkers made,
And many a game with fortune played;
What is it we have won?
This, this at least,—if this alone.

That never, never, nevermore,
As in those old still nights of yore,
(Ere we were grown so sadly wise),
Can you and I shut out the skies,
Shut out the world and wintry weather,
And eyes exchanging warmth with eyes,
Play chess as then we played together!

—Robert Bulwer-Lytton.

The Groomsman to His Mistress.

Every wedding, says the proverb,
Makes another, soon or late;
Never yet was any marriage
Entered in the book of fate,
But the names were also written
Of the patient pair that wait.

Blessings then upon the morning
When my friend, with fondest look,
By the solemn rites' permission,
To himself his mistress took,
And the destinies recorded
Other two within their book.

When the priest fulfilled his office,
Still the ground the lovers eyed,
And the parents and the kinsmen
Aimed their glances at the bride;
But the groomsman eyed the virgins
Who were waiting at her side.

Three there were that stood beside her;
One was dark and one was fair;
But nor fair nor dark the other,
Save her Arab eyes and hair;
Neither dark nor fair I call her,
Yet she was the fairest there.

While her groomsman—shall I own it?
Yes, to thee, and only thee
Gazed upon this dark-eyed maiden
Who was fairest of the three.
Thus, he thought: "How blest the bridal
Where the bride were such as she!"

Then I mused upon the adage,
Till my wisdom was perplexed,
And I wondered, as the churchman
Dwelt upon his holy text,
Which of all who heard his lesson
Should require the service next.

Whose will be the next occasion
For the flowers, the feasts, the wine?
Thine, perchance, my dearest lady;
Or, who knows? it may be mine,
What if I were—forgive the fancy,
What if I were—both mine and thine!

—Thomas William Parsons.

Reminiscences of Tennyson.

Of the winning of Emily Sellwood much will ever remain untold, wife and son preserving what is surely a wise reticence regarding a long period of trial in the closest relationship of the poet's life. For Emily Sellwood and Alfred Tennyson had met in 1830, when she was seventeen and he twenty-one. Arthur Hallam, we are told, was then staying at Somersby with the Tennysons, and asked Emily Sellwood to walk with him in the Fairy Wood. At a turn of the path they came upon Alfred, who at the sight of the slender, beautiful girl of seventeen, in her simple gray dress, suddenly said to her, "Are you a Dryad or an Oread wandering here?" Once before their orbits had almost crossed, for in his boyhood Tennyson had taken music lessons from Mr. Smalley, a well-known teacher in Horn-castle; and there may still be seen the house where Emily Sellwood lived as a girl, with its attic windows looking down on the market stalls.

Miss Emily Sellwood was the daughter of a solicitor at Horn-castle, Mr. Henry Sellwood, who came of a good old Berkshire stock. She was also niece of the great Arctic explorer, Sir John Franklin, who was Mrs. Sellwood's brother. It was in 1836 that the love of the two made itself mutually felt, when Louisa Sellwood married Charles Tennyson and Emily was her youngest sister's bridesmaid.

Tennyson narrates the incident in one of his sonnets. Before the ceremony Emily had been weeping, till her sister, smiling, said her—

"No tears for me!
A happy bridesmaid makes a happy bride."

But weary years had to come between ere the bridesmaid became the bride. An engagement was entered into; but Tennyson was not in a position to marry, and here it was that he faced the severest temptation of his life. Had he chosen to publish then, he might have married; had he chosen to write prose articles for the reviews even, many an editor would have been pleased to add his name to his list of contributors. But Tennyson would not. In a smaller man such a resolve would have been intellectual coxcombry; in Tennyson it was the intuitive recognition of his high calling, the answer to the whisper that lingered in his ear from his dawn of life, steadfast obedience to the command from far, far away to follow the gleam. Great gifts had been given to him to use worthily, and he set his face against giving to the world what he considered immature work. How far Emily Sellwood upheld him in his determination we cannot know for certain, for the extracts from their correspondence published in their son's "Memoir" contain little that is personal; but of her loyalty to his decision we have abundant proof. Her family, however, viewed the matter from a different standpoint; it was hardly to be expected that the poet's sense of consecration would be favorably regarded when it appeared to involve the sacrifice of his betrothed. And so, in 1840, when the prospect of Tennyson making an income sufficient to support his wife or, for that matter, any income at all—seemed to be as remote as ever, the engagement was broken off by the lady's relatives; and Miss Sellwood and Tennyson silently acquiesced. Ten ripening years passed, and it was in the spring of 1850 that Tennyson next met Miss Sellwood at Ship-lake-on-the-Thames. Separation had only drawn the two closer together, and the way now seemed clearer. Tennyson had three hundred pounds in bank; Moxon, his publisher, advanced another three hundred pounds; and Mr. Sellwood found the household furniture. It did not promise luxury, but it sufficed, and an early date was fixed for the wedding.

In Ship-lake Church, with its tower half-clothed with ivy, rich in painted glass windows and carved oak ornaments, on the 13th of June, 1850, Alfred and his betrothed were wed. The cake and the dresses arrived too late, and Tennyson used to remark that it was the nicest wedding he had ever been at. The only guests were the bride's father, some of the Lushingtons, and two or three other friends.

It was at Tent Lodge, Coniston, that Carlyle first met Mrs. Tennyson; and he was touched with her thoughtfulness in closing a window on hearing him cough. When introduced he slowly scanned her from head to foot, and then gave her hand a hearty shake. To Mrs. Carlyle he wrote—

"Alfred looks really improved, I should say; cheerful in what he talks, and looking forward to a future less detached than the past has been. A good soul, find him where or how situated you may. Mrs. Tennyson lights up bright, glittering blue eyes when you speak to her; has wit, has sense; and were it not that she seems so very delicate in health, I should augur really well of Tennyson's adventure."

Carlyle was right. Of all the great literary men of the nineteenth century, not even excepting Robert Browning, Tennyson was most fortunate in his married life. "The fear of God," he said in after-life, "came into my life before the altar when I wedded her." In all things his wife was his adviser. "I am proud of her intellect," he said.

William Wordsworth died on April 23, 1850, and there were not a few candidates for the vacant poet-laureateship. The label of tongues was great; but Tennyson was the popular favorite, and in the early winter came the offer of the appointment. The Queen had not forgotten the idyllic charm of "The Miller's Daughter," and Prince Albert's admiration of "In Memoriam" was profound. Tennyson records that the night before the offer reached him he dreamt that Prince Albert came and kissed him on the cheek. It is interesting to note that although the Queen and Prince Consort were well acquainted with Tennyson's work, some members of the Government were not. "We know nothing of this gentleman," wrote Lord Palmerston to Samuel Rogers. "Are his writings such as befit a laureate to the Queen?"

Tennyson's acceptance was by no means a foregone conclusion. "I have no great passion for Courts," he said, "but a great love of privacy. It is, I believe, scarce £100 a year, and my friend R. M. Milnes tells me that the price of the patent and Court-dress will swallow up all the first year's income." He wrote two letters, one accepting and one refusing, remaining for a time undecided which to send.—From "Tennyson," by Eran J. Cathbertson.

Mrs. Sweeney—"But phat about the squarin' av the board and lodgings for the fortnight before yez go?" Pat (bundle under arm) "Well, indade, Mrs. Sweeney, I've never bin in the habit av squarin' any wan, to tell yez the truth; but if ever I do make a beginnin', take my oath for it, it's your own decent self shure'll be squared first, bekase, to tell yez straightforwardly, a finer landlady than yourself I never met wid."

Healthfulness of Mountains.

It is well known that the chemical composition of the atmosphere differs but little, if at all, wherever the sample be taken; whether it be on the high Alps or at the surface of the sea, the relation of oxygen to nitrogen and other constituents is the same. The favorable effects, therefore, of a change of air are not to be explained by any difference in the proportion of its gaseous constituents. One important difference, however, is the bacteriological one. The air of high altitudes contains no microbes, and is, in fact, sterile, while near the ground and some 100 feet above it microbes are abundant. In the air of towns and crowded places not only does the microbe impurity increase, but other impurities, such as the products of combustion of coal, accrue also. Several investigators have found traces of hydrogen and certain hydrocarbons in the air, and especially in the air of pine, oak, and birch forests. It is these bodies, doubtless, to which the curative effects of certain health resorts are ascribed. Thus the locality of a fir forest is said to give relief in diseases of the respiratory tract. But, all the same, these traces of essential oils and aromatic products must be counted, strictly speaking, as impurities, since they are not apparently necessary constituents of the air. As recent analyses have shown, these bodies tend to disappear in the air as a higher altitude is reached, until they disappear altogether. It would seem, therefore, that microbes, hydrocarbons, and entities other than oxygen and nitrogen, are only incidental to the neighborhood of human industry, animal life, damp, and vegetation. From the London Lancet.

The Ill-Natured Wife.

There is nothing more objectionable and annoying than a nagging, discontented, ill-to-please wife. And, unhappily, the type is by no means extinct, as many a poor man can testify. If he talks, he is noisy; if silent, he is sulky; if he reads, he is unsociable; and if he goes for a walk by himself for the sake of a little peace and quietness, he is cruel and selfish. Paradoxical though it sounds, the only comfort he has in his own home is when he is out of it. If he hopes to make the air a little clearer by bringing home a present, he is told it is just like him to bring home something that is not wanted, whereas if he had brought so-and-so there would have been a little sense in it. And if he brings nothing, or forgets some small commission, he has to listen to half an hour's steady talking as to the disgraceful way he treats his poor hard-working wife, who left a good comfortable home to be made miserable by him, or he has to endure an evening of chilly silence while his wife sulks in the next room. I could go on, but space forbids.

Some people's tempers wince at every touch,
You always do too little, or too much;
Thus, always teasing others, always teased,
Their only pleasure is to be displaced.

Answers to Sept. 15th Puzzles.

1. Cash, dash, fash, gash, hash, lash, mash, push, rash, sash, wash.
2. A part.
3. Regal—exile given—alert lents.
4. Wasp—asp.
5. Grape—rape—ape.

SOLVERS TO SEPT. 15TH PUZZLES.

Mrs. Annie Rodd, "Diana," "Grace," J. G. McLean, Sila Jackson, "Ike Icicle," "Essex," Lizzie Conner, "Sartor," "Eneri."

ADDITIONAL SOLVERS TO SEPT. 1ST PUZZLES.

"Essex," "Amy," Helen McLure, Lizzie Conner.

COUSINLY CHAT.

My Dear Cousins, The result of last quarter's puzzle contest is now ready, and I presume the contestants are eagerly awaiting its publication. The prizes for original puzzles are awarded as follows: 1st (\$1.00) to E. L. Sawyer, Toronto, Ont.; 2nd (75c.) to G. J. McCormac ("Ike Icicle"), St. George's, P. E. I.; and 3rd (50c.) to "Nota Bene." Will "Nota Bene" please forward his address, as it has been mislaid? Prizes for solutions: 1st (\$1.00) to Miss Helen McQueen ("Diana"), Salem, Ont.; 2nd (\$1.00) to J. G. McLean, Kentville, N. S.; 3rd (75c.) to Miss Margaret G. Purdy ("Grace"), Rockton, Ont. "Essex," "Eneri," Sila Jackson and Lizzie Conner were very close followers, while "Sartor," "Ike Icicle," Mrs. Annie Rodd and "Amy" made a very good showing.

"Essex," Your "too deep" was answered by most of the puzzlers. The other answer was not so far off the mark. I expect to hear from you in our new contests. Why not get some of your "young hopefuls" to work?

"Amy," Arranged matters all right, and you did not come out very far behind.

"Diana," I must congratulate you on your repeated success. Do you know "Sartor"?

Lizzie Conner, You were "so near and yet so far." If you do not care to try the "Essex," what about the poetry contest? This ends the puzzling for a time, but now that the fairs and harvest homes are all over and the long evenings give time for mental recreation, I hope the old puzzlers will enter the contests which have been and will from time to time be announced. I desire suggestions for a new name for our department, since Uncle Tom has laid aside his oars. Those of you who are clever with your pencil might favor us with a neat heading, but in any case send your name suggestions whether illustrated or not. Any one may offer not more than two suggestions, and to the one sending the most suitable I will give a cloth-bound book. This contest will be open until Nov. 5th. Mark envelopes, "Name Contest," and sign full name and address as well as *nom de plume*.

Address—All work to

MISS ADA ARMSTRONG,
Pakenham, Ont.



RAPID-EASY GRINDERS

Will do More Work with Same Power than Any Other.

Most durable and handiest machine on the market. Adapted for use with tread power, 4- to 10-horse sweep-power, windmill or steam engine of any power.

A fine Lithographic Hanger showing this machine, and information in reference to it, on application.

In writing, state what power you wish to use.

NEWMARKET, Ont., Oct. 10th, 1900.

Your Rapid-Easy Grinder does first-class work, and gives me satisfaction in every respect. I have seen several other Grinders and their work, and they are not in it at all with your Grinder. I cannot speak too highly of it.

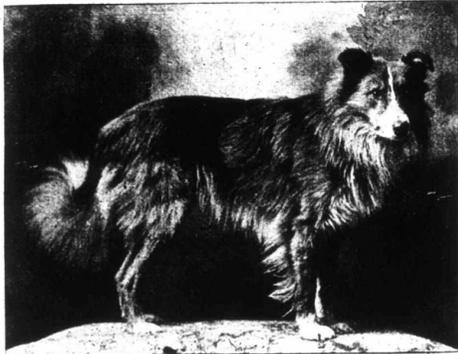
B. W. HOWARD.

J. FLEURY'S SONS,
AURORA, ONTARIO.

Medals for plows: Chicago, '93; Paris, 1900.

HOW TO GET A FIRST-CLASS COLLIE

Twelve
New
Subscribers



Twelve
New
Subscribers

TO ANY SUBSCRIBER sending us the names of 12 NEW yearly paid-up Subscribers we offer a young COLLIE, six weeks old or over, eligible for registration, and bred by Mr. R. McEwen, Byron, Ont., whose stock has been so successful in the leading shows in Canada and the United States.

Our Self-Binder, HANDY, DURABLE and ATTRACTIVE.

Made to contain the 24 issues of the year. We will forward this Binder, postpaid, to anyone sending us the names of two NEW subscribers and \$2.00.

Bagster's NEW COMPREHENSIVE Teacher's Bible,

Containing the Old and New Testaments, according to the authorized version, together with new and revised helps to Bible study—a new Concordance and an indexed Bible Atlas, with SIXTEEN FULL-PAGE ILLUSTRATIONS, PRINTED IN GOLD AND COLOR.

HOW TO OBTAIN IT—

Would retail at from \$3 to \$4. We will send (carefully packed, post-paid) this Bible to anyone sending us the names of TWO NEW SUBSCRIBERS to the FARMER'S ADVOCATE at \$1.00 each.

The BALANCE of this year's issues given FREE to all NEW SUBSCRIBERS for 1901.

Write for a sample copy of the Farmer's Advocate, and begin to work for these premiums right away. In every case cash must accompany the new names.

ADDRESS

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

Want a Good Watch?

WE have succeeded in procuring from one of the most reliable jewelers in Canada a complete list of Gents' and Ladies' Watches of sufficient variety to suit every one, and have no hesitation in recommending them to our readers as premiums worthy of an effort to secure. These are not by any means the same class of goods as are hawked around fair grounds, but first-class in every particular, and we assure you that you will be pleased with whatever of the above premiums you may obtain. Let us hear from you at an early date with a good list of new subscribers accompanied by the cash, and take your choice.

Gents' Watches.

No.	Description	New Subscribers.
No. 1.	Yankee Nickel Watch.....	2
No. 2.	Trump Nickel Watch.....	4
No. 3.	Trump Gun Metal Watch....	5
No. 4.	No. 14 Silver Watch.....	8
No. 5.	7 Jeweled Gent's Elgin in 3 oz. Nickel Case.....	10
No. 6.	7 Jeweled Gent's Elgin in Gun Metal Case.....	11
No. 7.	7 Jeweled Gent's Elgin in Sterling Silver Case....	14
No. 8.	7 Jeweled Gent's Elgin in 20-year Filled Case.....	18
No. 9.	7 Jeweled Gent's Elgin in 25-year Filled Case.....	21
No. 10.	15 Jeweled Gent's Elgin in 3 oz. Nickel Case.....	15
No. 11.	15 Jeweled Gent's Elgin in Gun Metal Case.....	15
No. 12.	15 Jeweled Gent's Elgin in Sterling Silver Case.....	18
No. 13.	15 Jeweled Gent's Elgin in 20-year Filled Case.....	21
No. 14.	15 Jeweled Gent's Elgin in 25-year Filled Case.....	25

Ladies' Watches.

No.	Description	New Subscribers.
No. 15.	Gun Metal Swiss Chatelaine.....	4
No. 16.	Sterling Silver Swiss Chatelaine.....	4
No. 17.	Nickel American O. F. large size.....	5
No. 18.	Gun Metal American O. F. large size.....	5
No. 19.	Nickel, small size.....	9
No. 20.	Gun Metal, small size.....	10
No. 21.	Sterling Silver, small size.....	10
No. 22.	7 Jeweled Elgin in 20-year Filled Hunting Case....	20
No. 23.	7 Jeweled Elgin in 25-year Filled Hunting Case....	22
No. 24.	15 Jeweled Elgin in 20-year Filled Hunting Case....	23
No. 25.	15 Jeweled Elgin in 25-year Filled Hunting Case....	25

Description of Watches.

The accompanying cuts fairly well represent all the Ladies' and Gents' Watches, and a description of each as numbered is as follows:

No. 1. American Nickel Key-wind Boy's Watch that is absolutely guaranteed to keep good time and give satisfaction.

No. 2. Gent's Nickel American O. F. Watch; stem wind, and push-in stem and turn to set hands. This is a very strong, reliable Watch.

No. 3. Same as No. 2, excepting that it has Gun Metal case instead of Nickel case.

No. 4. Is a smaller-sized Gent's Watch, has sterling silver case, O. F. Screw Back and Bezel; stem wind, and push-in stem and turn to set hands. This is the lowest-priced and most reliable Boy's or small Gent's Silver Watch that is on the market.

No. 5. Is fitted with 7-Jeweled Nickel, first-quality Elgin movement. The case is a 3-oz. O. F. Nickel case; stem wind and set; screw back and bezel case.

No. 6. Same movement in Gun Metal or Black Steel screw back and bezel case.

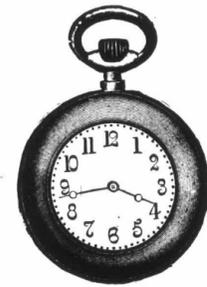
No. 7. Same movement with Sterling Silver O. F. screw back and bezel case.

No. 8. Same movement in 20-year guaranteed Gold Filled O. F. screw back and bezel case.

No. 9. Same movement in 25-year guaranteed Gold Filled O. F. screw back and bezel case.

Nos. 10, 11, 12, 13 and 14 are fitted in the same style of cases as Nos. 5, 6, 7, 8 and 9; the difference is in the movement, and the movement is 15-Jeweled Nickel, first-quality Elgin movement.

No. 15. Is a small-sized Swiss O. F. Gun Metal Chatelaine Watch.



No. 16. Is the same, only with Sterling Silver case, which can be had nicely engraved.

Nos. 17 and 18 are a good-quality American Watch, O. F. stem wind, and push-in stem and turn to set hands. These are a little larger than the usual Ladies' Watches, and are smaller than the usual Boys' Watches, though can be used for either Boys, Girls or Young Ladies.

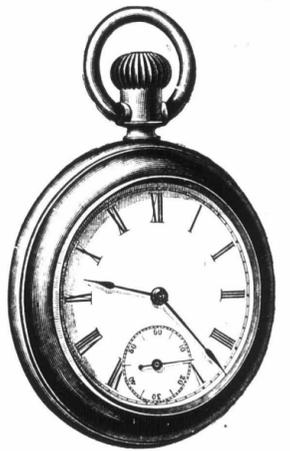
Nos. 19, 20 and 21 are small sized; in fact, are the exact size of cut. These are American Watches, O. F. stem wind, and push-in stem and turn to set hands, and are first-class timekeepers. Will give perfect satisfaction.

If a nice leather wrist case is desired with these watches, send two extra subscribers.

Nos. 22, 23, 24 and 25 are similar to the accompanying cut. These are regular Ladies' Hunting Watches. Nos. 22 and 24 are fitted in 20-year guaranteed Gold Filled cases, nicely ornamented, or to be had in plain or plain engine turned, and the same applies to Nos. 23 and 25, excepting that they are fitted in 25-year guaranteed Gold Filled cases, and 14k Gold Filled; 22 and 23 are fitted with 7-Jeweled Nickel, first-quality Elgin movements. Nos. 24 and 25 are fitted with 15-Jeweled Nickel, first-quality Elgin movements.

When making your choice of Watch as premium, be sure to mention its number as given in premium list, also whether Lady's or Gent's.

The Wm. Weld Co., Ltd., London.



Our

Farmer's Library

A RECENT bulletin prepared by Prof. J. B. Reynolds, of the Ontario Agricultural College, gives a list of meritorious books on Agriculture, Live Stock, Dairying, and Fruit Growing, from which we have made a selection and added a few others. How to obtain, see below:

SOIL AND CROP.

- THE FERTILITY OF THE LAND.—Roberts. 372 pages. \$1.25.
- A BOOK ON SILAGE.—Woll. 185 pages. \$1.00.
- SOILS AND CROPS.—Morrow & Hunt. \$1.00.
- FORAGE CROPS.—Thos. Shaw. \$1.00.
- SOILING, ENSILAGE, AND BARN CONSTRUCTION.—F. S. Peck. 247 pages. \$1.00.

LIVE STOCK.

- THE STUDY OF BREEDS (CATTLE, SHEEP, AND SWINE).—Prof. Shaw. 400 pages; 60 engravings. \$1.50.
- HORSE BREEDING.—Sanders. 422 pages. \$1.50.
- LIGHT HORSES—BREEDS AND MANAGEMENT. 226 pages. \$1.00.
- HEAVY HORSES—BREEDS AND MANAGEMENT. 219 pages. \$1.00.
- CATTLE—BREEDS AND MANAGEMENT. 270 pages. \$1.00.
- SHEEP—BREEDS AND MANAGEMENT. 232 pages. \$1.00.
- CATTLE BREEDING.—Warfield. 386 pages. \$2.00.
- THE DOMESTIC SHEEP.—Stewart. 371 pages. \$1.75.
- THE SHEEP.—Rushworth. 496 pages. \$1.50.
- PIGS—BREEDS AND MANAGEMENT.—Sanders Spencer. 175 pages. \$1.00.
- FEEDS AND FEEDING.—Henry. 600 pages. \$2.00.

Vinton Series.

GENERAL AGRICULTURE.

- AGRICULTURE.—C. C. James. 200 pages. 30 cents.
- FIRST PRINCIPLES OF AGRICULTURE.—Voorhees. 207 pages. \$1.00.
- AGRICULTURE.—Storer. 1,875 pages, in three volumes. \$5.00.
- CHEMISTRY OF THE FARM.—Warrington. 183 pages. 90 cents.
- FARMYARD MANURE.—Aikman. 65 pages. 50 cents.
- BARN BUILDING.—Sanders. 280 pages. \$2.00.
- IRRIGATION AND DRAINAGE.—King. 502 pages. \$1.50.
- IRRIGATION FOR THE FARM GARDEN AND ORCHARD.—Henry Stewart. \$1.00.
- SUCCESSFUL FARMING.—Rennie. 300 pages. \$1.50, postpaid.

DAIRYING.

- AMERICAN DAIRYING.—H. B. Gurler. 252 pages. \$1.00.
- THE BOOK OF THE DAIRY.—Fleischmann. 330 pages. \$2.75.
- MILK AND ITS PRODUCTS.—Wing. 230 pages. \$1.00.
- TESTING MILK AND ITS PRODUCTS.—Farrington & Woll. 255 pages. \$1.00.

POULTRY.

- ARTIFICIAL INCUBATING AND BROODING.—Cypher. 146 pages. 50 cents.
- PRACTICAL POULTRY-KEEPER.—Wright. \$2.00.

APIARY.

- THE HONEYBEE.—Langstroth. 521 pages. \$1.40.

FRUIT, FLOWERS, AND VEGETABLES.

- VEGETABLE GARDENING.—Green. 224 pages. \$1.25.
- FLOWERS AND HOW TO GROW THEM.—Rexford. 175 pages. 50 cents.
- THE PRINCIPLES OF FRUIT-GROWING.—Bailey. 514 pages. \$1.25.
- BUSH FRUITS.—Card. 337 pages. \$1.50.
- HORTICULTURIST'S RULE BOOK.—Bailey. 312 pages. 75 cents.
- SPRAYING OF PLANTS.—Lodeman. 339 pages. \$1.00.
- THE NURSERY BOOK.—Bailey. 365 pages; 152 illustrations. \$1.00.
- AMATEUR FRUIT-GROWING.—Samuel B. Green. 5x7 inches; 134 pages, with numerous fly leaves for notes; bound in cloth, and illustrated. 50 cents.

PLANT AND ANIMAL LIFE.

- THE STORY OF THE PLANTS.—Grant Allen. 213 pages. 40 cents.
- THE STUDY OF ANIMAL LIFE.—J. A. Thomson. 375 pages. \$1.75.
- INSECTS INJURIOUS TO FRUITS.—Saunders. 436 pages. \$2.00.

HOW TO OBTAIN THESE BOOKS:

We will furnish present subscribers any of the above books as premiums for obtaining new yearly subscribers to the FARMER'S ADVOCATE, at \$1.00 each, according to the following scale:

Books valued at from	\$0.30 to \$0.65,	for 1 new subscriber.
"	.90 to 1.25,	for 2 "
"	1.50 to 1.75,	for 3 "
"	2.00 to 2.50,	for 4 "
"	2.75	for 5 "
"	5.00	for 9 "

We can furnish any of the above books at the regular retail price, which is given opposite the title of the book. By a careful study of the above list, any farmer can choose a select list of books suited to his needs, and for a small outlay in cash, or effort in obtaining new subscribers for the ADVOCATE, secure the nucleus of a useful library.

Cash to accompany names in every case. \$1.00 pays each new subscription from now to end of 1901.

The WILLIAM WELD CO., Ltd., LONDON, ONT.

NOTICES.

Deafness Cured Scientifically. The book of testimonial letters sent to all who write to the Wilson Ear Drum Co., Louisville, Kentucky, U. S. A., is full of attestations from users of this wonderful device in all parts of the American continent, that they have been deaf, and now hear by its use. Such a multitude of voluntary statements, all to the same purport, may well have sufficient weight with those so afflicted to at least lead them to send and secure the free book for themselves. It is claimed that the common-sense method of supplying an invisible to the ear is both scientific and simple, and that the cost is but trifling, even though the benefits are not taken into consideration.

"What's the Time?"—A booklet with this title, just published by the Chicago, Milwaukee & St. Paul Railway, should not only be in the hands of every traveller, but should have a place on the desk of every banker, merchant or other business man. The four "Time Standards" which govern our entire time system and which are more or less familiar to most of the travelling public, but by many others little understood, are so fully explained and illustrated by a series of charts, diagrams and tables that anyone who chooses can become conversant with the subject in question. There are also some twenty-four tables by which, almost at a glance, the time at any place being given, the hour and day can be ascertained in all the principal cities of the world. A copy of this pamphlet may be had on application to George H. Heafford, General Passenger Agent, Chicago, enclosing two-cent stamp to pay postage.

All About the Airmotor.

We have received from the Ontario Wind Engine and Pump Co., Toronto, a copy of the 15th edition of their catalogue and price list, containing a photo-engraving of the successful president and manager, Mr. S. H. Chapman, and a complete illustrated description of the windmills, pumps, grinders, tanks, nozzles, and the various parts used in connection therewith. A useful lot of tables are given for computing the size of pulleys, gears, etc., for obtaining given speeds, the capacity of pumps. It must be gratifying to this progressive firm to know that the character of its products has been such as to nearly treble its business in the past few years, involving repeated enlargements of their establishment. The policy by which such results have been achieved has been by trying not "how cheap" can a machine be built, but "how good," and then place it upon the market at as low a figure as is consistent with a safe margin of profit. This 120-page pamphlet is well indexed, and all interested in pumping or power machinery would do well to secure a copy for reference.

Fifty Cotswold shearing rams were shipped Oct. 6th from Guelph, Ont., to Geo. Harding & Son, Waukesha, Wisconsin, by D. McGrae and others.

Mr. Wm. R. Elliot, Hespeler, Ont., near Guelph, has decided to sell his entire herd of Shorthorn cattle, numbering 35 head, and his entire flock of Oxford sheep (60 head) by auction, in the latter part of November. The date and further particulars will be advertised in our November 1st issue.



"Look at This."

I have received instructions from Geo. Claxton to sell the following farms:
One section, all fenced, as follows: W. 1/2 30, 15, 12; frame buildings and painted; stable, 40x80; stable, 16x30; granary, 20x32; machine shed, 16x30; hog house, 16x60; shed frame to hold 100 head cattle. Frame house, stone cellar; full-size house, 18x34; kitchen, with upstairs, 16x18. This house cost \$1,800. The above buildings cost \$1,000.
The E. 1/2 19, 15, 12; 3.0 acres cultivated on section, and more to break; price, only \$9,000. 4 miles from Keyes.
Also N.-E. 1/4 15, 15, 12; good rich land; 80 acres broke; fenced; and only \$1,200.
Also 1/2 section, north of Plumas; uncultivated; good land; N. 1/2 10, 18, 12. This is situated in one of the best mixed-farming districts in Manitoba. Easy terms and fair treatment to good farmer. "It is a bargain." Apply to or call on

H. R. KEYES, Keyes, Man.

For Sale.

The Samuel Hanna Estate, at Griswold.

As this estate must be closed out, it has been decided to offer for sale all those splendid farms owned by the late Samuel Hanna, and comprising about seventeen hundred acres within a few miles of Griswold. The land will be sold in parcels. It is highly improved with buildings, fences, and cultivation.

A great opportunity is here offered to any one desiring a first-class farm.

For particulars apply to

Edmund W. Hanna,

Or to
Coldwell & Coleman, — Box 243,
Barristers, GRISWOLD,
Brandon.

Messrs. A. Gilmore & Sons, Athelstan, Que., makes an offering elsewhere in this issue that merits attention. This is a good season to secure well-bred poultry, because it can be sold cheaper than in spring, and a greater choice secured. Pigs at 8 weeks old are all ready to go on with. See the advertisement.

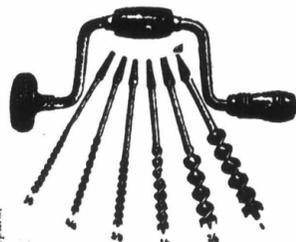
Send for Illustrated Price List.



Mitts—A first-class farmer's mitt, beautifully and warmly lined, only 60c. per pair, postpaid.



Mitts—Common but well lined ones 50c. per pair, postpaid.



Brace and 6 Auger Bits, only \$1.50; postpaid, \$2.00.

Shot, per bag of 25 lbs., only \$1.40.



Head Light silver steel
Lance Tooth Saw
WILKINS & CO.
TORONTO.



Shotgun—A first-class single-barrel breech-loading shotgun, only \$5.00.

Crosscut Saws—The Headlight is the best and fastest cutting saw made. 14 four gauges thinner on the back than the front, enabling it to do its work with wonderful rapidity. What is further, every saw is guaranteed. In 5, 5 1/2, 6, 6 1/2 and 7 ft. lengths, only 50c. per foot.



Sawset—We are showing a cut of a sawset worth 65c., but on account of having bought a large quantity we are offering them at the small sum of 35c. each, postpaid, until they are all sold.

Solid Steel Axes only 50c. each.

WILKINS & CO.,

166 and 168 King St. East, Toronto.

Watch?

able jewelers
ches of suffi-
cion in recom-
of an effort to
ss of goods as
cular, and we
ove premiums
a good list of
ice.

Watches.

- New Subscribers, 4
- 10
- 15
- 20
- 25
- 30
- 35
- 40
- 45
- 50
- 55
- 60
- 65
- 70
- 75
- 80
- 85
- 90
- 95
- 100



1 Nickel, first-
case is a 3-oz. O.
et; screw back

Metal or Black

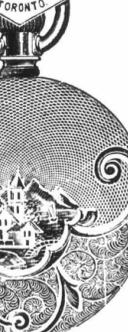
Sterling Silver

ear guaranteed
bezel case.

ear guaranteed
bezel case.

are fitted in the
8 and 9; the dif-
he movement is
lgin movement.

O. F. Gun Metal



in 25-year guar-
are fitted with 7-
and 25 are fitted

um, be sure to
also whether

London.

"Post" Fountain Pen.

SOMETHING THAT EVERY MAN, WOMAN, BOY AND GIRL NEEDS.

It is a wonderful tribute

to the greatest invention in fountain-pen construction of the age.

THE PRICE OF THE POST IS \$3.00. IT CANNOT BE PURCHASED IN THE POST OFFICE. ORDER THIS PRICE ANYWHERE.

The patentee has a hard-and-fast agreement with the trade and agents that \$3 shall be the lowest retail price. By a special agreement we are in a position to make

A Great Offer: We will send one of these pens to anyone who sends us three new subscribers, accompanied by \$3.00 in cash.



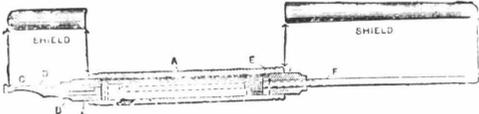
General Lew Wallace, the author of the greatest book of the age, "Ben Hur," also "Prince of India," "Commodus," etc., says in a letter in his own handwriting: "The fountain pen, Post, was received, and I have taken the liberty of trying it thoroughly. Please accept the excuse for failure to acknowledge sooner. I have tried every pen of the kind on the market, and now unhesitatingly give the preference to the Post. It not only feeds itself with less care, but has the immeasurable advantage of re-supply without inking the fingers. I do all my work with it."

Lew Wallace

To show our confidence in this pen, we will send you one on trial for a week upon receipt of \$1.00, which, if not entirely satisfactory, you can return to us and we will refund you the \$1.00 paid us. If satisfactory, you must send us the names and addresses of three new subscribers and \$2.00 additional cash.



The only self-filling and self-cleaning pen manufactured in the world. To fill the pen, put the piston in and draw the piston rod up. To clean, put the piston in and draw the piston rod backwards and forwards a few times.



A, Barrel; B, Nozzle; C, Pen; D, Feed; E, Plunger; F, Rod.

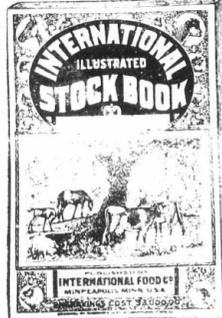
The world's greatest singing evangelist, who has thrilled thousands and tens of thousands, now raises his voice in praise of the Post Fountain Pen.

Mr. Sankey sends the following characteristic letter: "I have used the Post pen for some time, and have had great satisfaction with its use. It never fails or gets cranky. One can at least have clean hands by using the Post, whatever the heart may be."

Frank Sankey

THE Wm. Weld Co., LTD.

LONDON, ONTARIO.



A \$3000.00 STOCK BOOK FREE.

We will mail you a copy FREE, POSTAGE PREPAID, if you write us and answer 4 questions: 1st - Did you ever use "International Stock Food" for Horses, Cattle, Sheep or Hogs? 2nd - Is it for sale in your town in 25 lb. packages? 3rd - How many head of stock do you own? 4th - Name this paper. The engraving shows every town in 6 brilliant colors. The book is 92 pages. It contains 183 large colored engravings of Horses, Cattle, Sheep, Hogs, Poultry, etc., with a description of the different breeds and practical points on breeding, raising and fattening stock. It also contains a very finely illustrated and valuable Veterinary Department. The engravings cost us \$3000.00.

WE WILL GIVE YOU \$14. WORTH OF "INTERNATIONAL STOCK FOOD" IF BOOK IS NOT AS STATED. "International Stock Food" is a safe, reliable stimulating tonic and blood purifier. It fattens Cattle, Hogs and Sheep in 30 days, less time in 45 days. It gives grain, by adding digestion and assimilation. It extra food for breeding animals. Many use 2000 lbs. per year. It makes Calves, Colts, Lambs and Pigs grow very rapidly and gain weight. It feeds for One Cent. Guaranteed to make Hogs weigh 300 lbs. at 6 months. It will save your Hogs from Cholera. Your money will be refunded if it ever fails for any use. We feed 100,000 Hogs, 100,000 Cattle, 100,000 Sheep, 100,000 Poultry, etc. Write for our literature.

Largest Stock Food Factory in the World. **INTERNATIONAL FOOD CO.** We sell 12 lb. cans 22¢ each. 5 lb. cans 12¢ each. 1 lb. cans 3¢ each. 100 lb. cans \$12.00 each. 500 lb. cans \$50.00 each. 1000 lb. cans \$100.00 each. Our Stations: Buttonwood 217 D. S. Ave. W. 100 and International Stock Food. If you order and pay for it, we will send you a copy of our "International Stock Food Book" free. It is the largest in the world and contains 3100 lbs. of 3000 pages. Capital Paid in \$1,000,000.00. **MINNEAPOLIS, MINN., U. S. A.**

EPPS'S COCOA

GRATEFUL COMFORTING Distinguished everywhere for Delicacy of Flavour, Superior Quality, and Highly Nutritive Properties. Specially grateful and comforting to the nervous and dyspeptic. Sold only in 1-lb. tins, labelled JAMES EPPS & CO. LTD. Homoeopathic Chemists, London, England.

EPPS'S COCOA

GOSSIP.

John Campbell, Fairview Farm, Woodville, Ont., in his advertisement in this issue offers a few Shropshire rams and a choice lot of imported and home-bred ewes. The offering should meet with a ready response from breeders wishing to secure Shropshires from a flock of high repute. Besides winning nearly all the first prizes at Toronto this year, a flock bred directly from Fairview Shropshires captured many first prizes and sweepstakes at Winnipeg, while an eastern breeder in Nova Scotia, who had four ewes from Mr. Campbell two months ago, strengthened his former purchases by another from the same source, winning nearly all in sight at P. E. Island and Nova Scotia Provincial Fairs. Breeders in Iowa, Indiana and Ontario have also captured premiums galore with Shropshires from Fairview, which speaks well for the uniform excellence of the Fairview flock. Write Mr. Campbell for circular and prices.

A very select herd of Shorthorns is that of Mr. W. G. Howden, at Columbus, Ont. The foundation was laid several years ago on selections made from the Lavender and Fashion tribes, and with judicious mating and management Mr. Howden has a well-selected and typical herd of Shorthorns. Over a dozen females from the best of the Golden Robe and Duke of Lavender. Over a dozen females from the best of the Golden Robe and Duke of Lavender. Many of the younger females, the sire employed previous to Duke of Lavender. We have known Mr. Howden for many years, and can assure the interested reader that his facilities and system of management has been strictly keeping with the high-class breeding of his stock, which insures the purchase of such stock the proper development of the animals purchased, a mere mention of the family names of which associates them in the reader's mind's eye with those of the lusty, short-legged, early maturing, and thick-fleshed sort. Note Mr. Howden's offerings from time to time.

Mr. D. J. Gibson, Bowmanville, Ont., has given the subject of bacon-pig production much thoughtful consideration, and has established a useful herd each of Berkshires and Tamworths with animals having individual merit as well as good breeding. In Berkshires, Mr. Gibson informs us that he has a very choice lot of young sows, old enough to be bred this winter, from his stock boar, Duke of Snodgrass 617, one of Messrs. Snell & Lyon's winning animals last fall at Toronto and locally, and out of a splendid sow which he purchased from Mr. McAllister, by Varna, Duke of these sows, Mr. Gibson says they cannot fail to make good, useful matrons. Their dam was an exceptionally prolific sow of excellent quality, while they are doing splendidly. Of Tamworths, Mr. Gibson informs us that he has about a dozen boars and sows ready for service and breeding (two litters, sired by King George 12nd, a splendid stock and show hog, and out of sows of George's breeding. Of these, their owner states they are an excellent lot, and fit to head any pure-bred herds in the country, having lots of size, and constructed upon the proper bacon-producing conformation. Bronze turkeys are also given much personal attention. The foundation of which was obtained at a stiff price, a good stock being on hand this season for sale. See Mr. Gibson's ad.

Champion Fruit Evaporator. The apple evaporator advertised in this issue by G. H. Grimm Mfg. Co., Montreal, sits on the cooking stove, and does its work quickly and well, leaving fruit white and full of natural flavor.

In a recent conversation with the management of the Dominion Organ & Piano Co., at their factory, at Bowmanville, the writer was informed of the prosperous condition of the firm. Their large factory, being taxed to its utmost capacity to keep pace with their orders. Those who visited their pavilion at the late Industrial were much taken with the extent and quality of the firm's exhibit, their building being filled with their most recent product. The artistic design, finish and substantial casing, coupled with the music-producing qualities of their instrument, appeals favorably to the lovers of high class music, and together with the straightforward and business-like management, account for their popularity. Get their catalogue.

KENDALL'S...

SPAVIN CURE



The old reliable remedy for Spavins, Ringbones, Spurs, curbs and all forms of Lameness. It cures without a bluish because it does not blister.

Dr. B. J. Kendall Co., North Fayette, Ont., Feb. 10, '98. Dear Sirs—Will you please give me a remedy for horses. I have a mare that is afflicted. I take pleasure in stating that I have cured a curb of four years' standing with your Kendall's Blisters, by using it on a horse and then applying your Spavin Cure. As long as I have horses, I will not be without Kendall's Spavin Cure and Kendall's Blisters in my stable. Very truly yours,

ADOLPHUS GAUTHIER, Price \$1. Six for \$5. As a liniment for family use it has no equal. Ask your druggist for Kendall's Spavin Cure, also "A Treatise on the Horse," the best book free, or address

DR. B. J. KENDALL CO., ENOSBURG FALLS, VT.

FOR SALE OR TO LET, a well-equipped henery, with 10 acres of land, dwelling house and barn. Apply to A. Gray Farrell, Smith's Falls, Ont.

Important Auction Sale of Shorthorns. THURSDAY, NOV. 18, 1900.

Twenty registered animals (6 bulls and 14 cows and heifers). Write for catalogue. As the proprietor has rented his farm, all live stock and implements will be sold without reserve.

F. A. NELLES, Caledonia Station, YORK P. O., G. T. R., Ont.

FOR SALE.

AS WE ARE DESIROUS of reducing our stock before winter, we will offer a choice lot of Yorkshire pigs, of either sex, from six to eight weeks old, registered, at four dollars each. Also, Toulouse geese, Pekin ducks, Light Brahms, Brown Leghorns and Black Minorcas at reasonable prices. Nothing but choice stock shipped.

Post office, railroad station and telegraph. Athelstan, Que. A. Gilmore & Sons.

FOR SALE:

4 FIRST-CLASS STOCK AND GRAIN FARMS,

Close to the City of Guelph and O.A. College, containing, respectively, 70, 100, 121, and 131 acres—all first-class land and good buildings. Will sell all together or separately. For particulars, apply to

James McNaughten, Gourock, Ont. Wellington, Co.

Parkhill Berkshire Herd and Poultry Yards

Offer great bargains this month. Extra good brood sows and young sows ready to breed. Also boars, all ages. Poultry: B. and W. Rocks, W. and S. L. Wyandottes, Leghorns, Hamburgs, Black Langshans and Light Brahms; Pekin and Rouen ducks; Toulouse geese and M. Bronze turkeys. Write for prices.

D. A. GRAHAM, Parkhill, Ont.

DOMINION LINE STEAMSHIPS.

Montreal to Liverpool.

Weekly Sailings. AMIDSHIP SALOONS, SPEED AND COMFORT.

The Second Cabin accommodation on the steamers of this Company is very fine. Passengers can make a cheap and very comfortable trip to Paris by using this accommodation. The through rate, Montreal to Paris, being \$13.75.

RATES OF PASSAGE. First Cabin, \$60.00 and upwards. Second Cabin, 37.50. Steerage, 23.50.

For further information apply to any agent of the Company, or

DAVID TORRANCE & CO., 17 St. Sacramento St., MONTREAL, P. O.

Catalogue Printing our Specialty.

Many of the best Catalogues in Canada are produced by us. Latest type faces, designs, ornaments, and modern machinery.—Best in America. Up-to-date covers designed by special artists without extra charge.

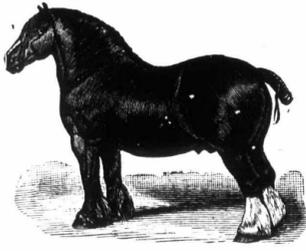
London Printing & Litho. Company, Ltd., LONDON, ONTARIO.

An Offering of Good Farms.—

A good farm is one of the most satisfactory assets a man can possess. Immediately in the neighborhood of Guelph, a section noted for its natural advantages of good soil and good water, four farms are offered for sale, each having first-rate buildings and other modern features. See the advertisement in this issue, and write James McNaughten, Gourock, Ont., for particulars.

Shipment of Clydesdale Stallions

THREE YEARS OLD AND UPWARDS.



just arrived in good condition from Scotland by Steamer Tritonia.

Among them are the largest Clydesdales ever imported.

We are the largest importers in Canada.

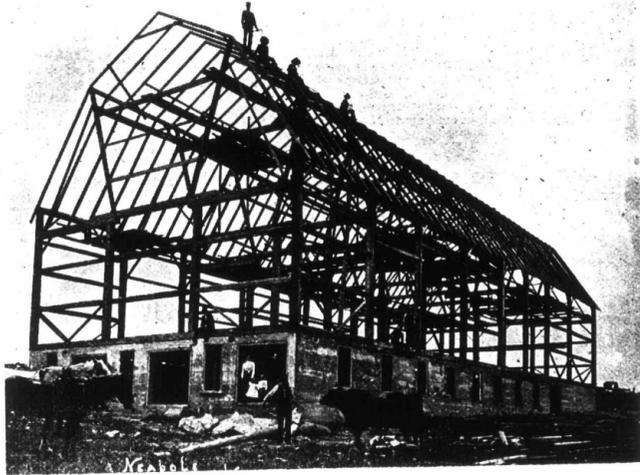
Correspondence solicited.

Dalgety Bros., 463 King St., LONDON, ONT.

ARCHIE CROZIER,

BREEDER OF SHORTHORN CATTLE, YORKSHIRE AND BERKSHIRE PIGS, AND LEICESTER SHEEP, WARMLY ENDORSES

Thorold Cement.



Barn of Archie Crozier, Beachburg, Ont. Size of wall, 15 x 120 ft. Wall, cistern and floor built with THOROLD CEMENT. The holes showing along the top of the wall are for ventilation.

Read what Archie Crozier says about THOROLD CEMENT:

STATE OF JOHN BATTLE, Cement Manufacturers, Thorold, Ont.: GENTLEMEN,—It is with pleasure that I testify to the good qualities of your Thorold Cement for building purposes. I have just completed a Basement Wall, Cistern and Floor throughout the entire building. Size of wall is 15 x 120 feet, 8 ft. above floor, and a 2-ft. footing, 12-in. wall above footing. I also put in door-sills and window-sills of cement. I used 280 bags of cement in the whole job. I consider it a cheaper and a better job than either brick or stone, and, furthermore, I have saved by building with cement 2,900 cubic feet of space over and above what I would have had if built with stone. Therefore I give credit to the cement for \$100 on space. The work was under the direction of your man, Mr. Geo. W. Read, who understands his work well. I do highly recommend your Thorold Cement to any person intending to build any kind of buildings, for snugness, durability, and extra space. I mail you a photo of my basement wall, and am sure you will be pleased with its appearance, for every person that sees it, either from Western Canada or any other place, say they never saw its equal for appearance, or from an architectural point of view.

Estate of JOHN BATTLE, Thorold, Ont.

Mr. D. A. Graham, Parkhill, Ont., changes his advertisement, offering Berkshire brood sows, young sows and boars of various ages, as well as a big line of desirable breeds of poultry. He informs us his stock is in fine vigor, and has been quite successful in the several competitions entered this season.

An opportunity is afforded those who want Short-horns to secure them of either sex, and in a variety of ages, at the auction sale on Nov. 1st, 1900, of F. A. Nelles, York, Ont., who would not think of disposing of his good herd had he not rented his farm. An announcement of the sale appears in our advertising columns in this issue. Catalogues, with extended pedigrees, are now ready for all who write for them.

Mr. John Isaac, Markham, having rented his farm and decided to retire from farming, will hold a dispersion sale of his entire herd of Short-horns, including the 10 head of imported animals now in quarantine, about the middle of December. The advertisement and further particulars will appear in the next issue of the FARMER'S ADVOCATE. It will be a rare opportunity to secure high-class Scotch-bred Short-horns.

Fortunately, the increasing demand for the very best class of horses is being met with an opportunity to secure them. No less an authority on horse individual excellence and pedigree than Mr. Alex. Galbraith, Janesville, Wis., the secretary of the American Clydesdale Association, has recently imported a personally selected consignment from the most noted studs in the United Kingdom, and from the most celebrated sires of the day. Shires, Suffolks, Percherons, and Hackneys are also offered in Mr. Galbraith's advertisement which appears in this issue.

POULTRY AND SHEEP. We would call attention to the offering of Barred Plymouth Rock and White Leghorn chickens, also the Leicester rams, in this issue. See advertisement of G. A. Green and J. E. Lusk, York, Ont. This is the season when rams are needed, and these breeds of rams are always right, but cannot always be procured.

Mr. W. S. Hawkshaw, Glanworth, Ont., is in England looking for choice Shropshires, and expects to return early in November. He has commissions to bring out breeding sheep of other breeds for other parties, and will probably have in charge quite a large consignment.

The champion Shropshire ram at the Royal Show of this season, bred by Mr. A. E. Mansell, was shipped to Melbourne, Australia, on Sept. 22nd, by Messrs. Mansell & Co. The same boat also took two high-class Shropshire rams to Adelaide, selected by the same firm.

The sale of 43 head of Aberdeen-Angus cattle, sold off the pasture, property of Rev. C. Holden, Buckingham, Eng., Sept. 26th, made an average of \$28, the females averaging \$32.50, the highest price being \$50. Many of the younger animals were sired by Proud Duke of Ballindalloch, winner of the champion cup at the Highland Society Show at Kelso, 1899, and the championship gold medal at the Royal at Maidstone, 1899.

R. H. Harding, Thorndale, Ont., writes: "I am now offering some first-class Dorset lambs, the breed that is acknowledged to be ahead of all others for raising hothouse lambs without the hothouse. I also will sell some good Shropshire lambs and Chester White pigs. I have not fitted any Chesters this season for show, had a fairly successful show season with the Dorsets, especially with stock of my own breeding. I enclose change of advertisement for next issue."

The annual joint sale of Shorthorn bull calves from the renowned herds of Collynie and Uppermill, belonging to Mr. Durhie and Mr. Marr, was slated to be held at Tillyearn on October 9th. The annual sale from the celebrated herds of Mr. A. M. Gordon, Mr. John Wilson, and Captain Graham Sterling, at Newton, Insh, on Wednesday, October 10th. A select portion of the choice herd belonging to Messrs. Law were to be sold at Mains of Sandquhar, Forres, on October 11th, and on October 12th the famous herd of Mr. George Inglis, of Newnmore, was to be sold. Some notes of these sales may be expected in our next issue.

PLEASE MENTION FARMER'S ADVOCATE.

GOSSIP.

MR. HUNTER'S HEREFORDS AT DURHAM, ONT.

The first imported Hereford cattle with modern blood, noted Mr. A. S. Hunter's new advertisement, in which the reader sees at a glance that his herd stands among the foremost in the country. Mr. Hunter has extensive facilities for the production of up-to-date stock, aided by the luxurious modern buildings of his County, in which he resides. In the herd are to be found representatives of the best English tribes, animals rich in beef-producing conformation, aided by the best obtainable sires. To those desirous of obtaining young, healthy Herefords, we would direct their attention to Mr. Hunter's new announcement, and expect quickly.

JOHN HORD & SON'S TAMWORTHS, YORKSHIRES, AND POULTRY.

The firm of John Hord & Son, Parkhill, Ont., has become firmly associated with the production of up-to-date Tamworth and Yorkshire swine, and each year has sent them carrying a goodly share of the best prizes at such fairs as Toronto and London Showyard winners of their own production have not been confined to their own exhibits. We have frequently noted leading winners in other Provinces with Parkhill prefixes awarded to their title, which have gone forth from here and done well in the hands of their purchasers. When we saw Mr. Hord recently, he informed us that in Tamworths they were in strong shape for a big season's business, and from the number of sows on hand of the best families, their confidence is fully assured for the future of the breed. Upwards of a dozen daughters and granddaughters of the noted Middleton Mimulus were held in reserve to supply the demand for the best breeding stock, the firm having built up a large and increasing trade by maintaining their best females from such worthy strains. A whole string of good sires were also on hand, and worthy of special mention is Spruce Grove Model, a winner at Toronto when competition was at its height. Defiance, an O. A. C. bred boar, and prizewinner at Toronto, is also held for service. Imported Starlight, an off-shoot of one of the best English herds, and a right good hog of exceptional quality, is also held for service, and one whose progeny gives satisfaction. In Yorkshires, Mr. Hord is the highest authority, having been a pioneer breeder. Five excellent brood sows at the year doing service to O. A. C. 128, a grand 2-year-old hog of individual merit. Three sows are due this fall. In poultry, the firm are always up to date in the heavier breeds, and successfully exhibit at the large fairs. Note their offerings.

FREE BIRD AND CAGE ANGORA CAT SHETLAND PONY BELGIAN HARES

We will give away 5280 Animals, Canary Birds, Mocking Birds, Bullfinches, Parrots, etc. Dogs, Angora Cats, Aquarium Goldfish, Shetland Ponies, Rabbits, Pigeons, Guinea Pigs, Monk-ys, Squirrels, etc., together with fancy cages. We mean exactly what we say. We will send you a pair of beautiful Angora Cats, birds with cage or any other animal you may want. We have a fine stock of animals that we are going to give away in the next few weeks and they will be distributed free to those who answer this advertisement, and we start you in a paying business and put you in the way of making money without your investing one cent for the animals.

MAKE MONEY RAISING ANIMALS. Genuine Angora Cats are worth from \$25.00 to \$100.00 each; Belgian Hares sell as high as \$100.00 each, and large profits are made raising them; and these animals are easy to raise. Send no money; simply act at once; write us to-day and be one of those to get a fine Song Bird or Parrot, with cage, a beautiful pair of Genuine Angora Cats, a complete Aquarium, with fish, shells and plants. Give the name of your nearest express office and say what animal or aquarium you want, and it will be sent exactly according to your offer. You will have nothing whatever to pay for the animals. We pay express charges. This advertisement means exactly what it says, and is simply an enterprising plan to increase our business capacity. Address: ANIMAL WORLD, Dept. 67, 248 W. 23d St., New York.

NEW IMPORTATION

Just arrived. Personally selected from the best studs in England and Scotland.

CLYDESDALES

By the champion winners, Baron's Pride, McGregor, Flashwood, Prince Alexander, Prince of Carruchan, etc.

Shires, Suffolks, Percherons and Hackneys

By the leading sires of the day, all combining size, color, quality and action. Fourteen first prizes and six second prizes won at the recent State Fairs of Illinois, Iowa, and Wisconsin, in the very hottest competition. Inspection cordially invited.

ALEX. GALBRAITH, Janesville, Wis.

Rosedale Stock Farm.

CLYDE AND SHIRE HORSES. SCOTCH SHORTHORNS. LEICESTER SHEEP.

A choice lot of Leicester ewes and rams with superior quality and as good blood as is obtainable. My motto, "The best is none too good."

J. M. GARDHOUSE, Highfield P. O. Malton Sta., G.T.R. on Weston Sta., C.P.R.

PLEASE MENTION FARMER'S ADVOCATE.

GAUSTIC BALSAM.

Imported to the Dominion of Horsemen. GAUSTIC BALSAM. A powerful remedy for all the various diseases of the horse, such as influenza, colds, coughs, and all the ailments of the respiratory system. It is also a powerful stimulant and is used in all cases of colic, indigestion, and other ailments of the digestive system. Every bottle sold is guaranteed to give satisfaction. Price 75c per bottle. Sold by all druggists. Guaranteed remedy for sterility in cows, with full instructions. Price, \$2. Prepared by THE EUREKA VETERINARY MEDICINE COMPANY, London, Ont.

9 CORDS IN 10 HOURS



BY ONE MAN with the FOLDING SAWING MACHINE made at Essex Centre, Ontario. NO DUTY TO PAY NOW. Send to Main Office for FREE catalogue showing LATEST IMPROVEMENTS, and testimonials from thousands. First order sources agency. Address: Folding Sawing Mach. Co. 55 N. Jefferson St., Chicago, Ill.

THORNCLIFFE Stock Farm

The largest stud of Clydesdales in Canada, headed by the Champion Stallion of all ages.

"LYON MACGREGOR."



Stallions and Colts

From the best blood in Scotland and Canada. Ayrshire bulls and heifers from imported stock. Jersey heifers and bull calves, sired by the prize-winning bull, Distinction's Golden. Best milking strains, with good teats. Terms reasonable. A visit to Thorncliffe will well repay you.

ROBT. DAVIES, Thorncliffe Stock Farm, TORONTO.

Clydesdales--Hackneys.



WELMPORT, bred and developed the highest class of stock from the best studs in Scotland, Canada, and the United States. Clydesdales headed by Lord Charming and Prince Delectable; Hackneys headed by Square Shot.

A Few Choice Yearlings of Either Breed can be spared.

D. & O. SORBY, GUELPH, ONT.

GUERNSEYS.

This is the dairy breed for ordinary farmers. Large, vigorous, and hardy, giving plenty of rich milk. Several fine young bulls for sale at very reasonable prices. A few heifers can be spared.

Address— SYDNEY FISHER, 17-y-o ALVA FARM, KNOWLTON, P. Q.

JOHN DRYDEN, BROOKLIN, ONTARIO.

OFFERS SIX YOUNG SHORTHORN BULLS, ready for service, at reasonable prices. Strong, active, masculine.

GOOD QUALITY AND CHOICE BREEDING.

BARRED PLYMOUTH ROCKS and GOLDEN WYANDOTTES.

For sale: Fine young birds of above varieties, cockerels and pullets. Being short of room, will sell very reasonably to quick buyers. Satisfaction guaranteed. Write JAMES ROW, Avon, Ont.

25 HEAD OF SHORTHORNS,
ALSO LEICESTERS AND TAMWORTHS.

AT 1 O'CLOCK,
AT FARM OF
PUBLIC AUCTION, **Wednesday, October 24th, 1900,** AT FARM OF

WM. HOGG & SON, THAMESFORD, ONT.

The offering includes the stock bull, Sir Roland, 15 cows and heifers and 9 young bulls, mostly rich red, and all registered. Representatives of the herd are distributed over Ontario, Manitoba, and British Columbia. The Leicesters, 16 in number, are high-grade, good individuals. The 20 Tamworths are all pure bred. Catalogues sent on application. TERMS OF SALE: 11 months' credit. 4% discount for cash. All trains met at Thamesford on day of sale.

WM. HOGG & SON, Proprietors. **T. E. ROBSON, M. P. P., Auctioneer.**

W. G. Pettit & Son,
FREEMAN, ONT.

IMPORTERS AND BREEDERS OF
Scotch Shorthorns
and **Shropshire Sheep**

OFFER FOR SALE:
20 Imp. bulls.
40 Imp. cows and heifers.
8 Home-bred bulls.
30 Home-bred cows and heifers.
7 Shearling rams.
20 Ram lambs.
25 Ewe lambs.
Burlington Junction Station, Telegraph and Telephone Offices, within half a mile of farm.

Our importation of this year arrived home August 17th, and is one of the largest made this year. Selected by ourselves from the leading herds in Scotland. Our new Catalogue, with full information, is now ready to mail.

14th Importation.

W. D. FLATT

Hamilton, Ont., Can.,

IMPORTER AND BREEDER OF

Shorthorn Cattle.

MR. F. S. PEER, of Mt. Morris, N. Y., will sail for England, Scotland, and the Channel Islands, November 10th, and will be pleased to have further commissions from Canadian breeders. Stock selected by Mr. Peer won the highest honors this year at Toronto, Ottawa, and Halifax Exhibitions. Send for circular, terms, and estimated cost of importing what you require, to above address.

MY herd is one of the largest in America, both imported and Canadian-bred. A very choice importation of 27 head now in quarantine and due out Oct. 11. New catalogue of the herd ready for distribution Oct. 1. Address all communications to

James Smith, Mgr.,

MILLGROVE, ONT.

R. R. Station and Telegraph, Hamilton, on main line Grand Trunk R. R.

FOR SALE.
CLYDESDALE stallions, mares and fillies, representing the best blood in Scotland—Prince of Wales, Darnly, Macgregor and Lord Lyon—including the great sweepstakes winner, The Marquis (1182), a grandson of Prince of Wales and Macgregor; also the first-prize 3-year-old at Ottawa this season.

THOS. GOOD,
Richmond P. O., Ont.

R. R. Station, Stittsville, C.P.R.

MAN OR WOMAN to employ and superintend agents—\$50 per month and expenses. Experience not required. Permanent position. ZIEGLER CO., 276 Locust Street, Philadelphia.

Shorthorn Cows and heifers (also a November bull calf), including the imported cow, Northern Empress, and her 3 mths daughter (imported in dam). A. P. ALTON & SON, Appleby, Ont.

Bonnie Burn Stock Farm Forty rods north of Stouffville station, Ont., offers for sale Shorthorn bull calves and yearling heifers, Shropshire lambs and shearlings (both sexes), om D. H. RUSSELL, Stouffville, Ont.

Pure Scotch Shorthorns for Sale. Two bulls and fifteen months old, and three two-year-old and two one-year-old heifers. All right. Good ones. Meadowdale station, C. P. R. S. J. PEARSON & SON, Meadowdale.

SPRING GROVE STOCK FARM

Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstakes at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Topman—17847—, champion at Winnipeg, Toronto, London and Ottawa, 1899. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply



T. E. ROBSON, Ilderton, Ont.

Shorthorns and Cotswolds

One 2-year-old Isabella-bred bull. Also shearling rams and ewes, and this year's crop of lambs. JOHN C. ROSS, Jarvis, Ont.

R. & S. NICHOLSON

SYLVAN P. O., PARKHILL STATION. Scotch Shorthorns, imp. and home-bred. The Imp. Clippie bull, Chief of Stars, heads the herd. Nine bull calves for sale, 8 to 10 months old (extra good ones), sired by Royal Standard. Inspection invited.

SPRINGBANK FARM.

Shorthorn Cattle, Oxford Sheep, and Bronze Turkeys. Young bulls for sale. om JAS. TOLTON, WALKERTON, ONT.

IN WRITING PLEASE MENTION FARMER'S ADVOCATE

HAWTHORN HERD OF DEEP-MILKING SHORTHORNS.

We are offering 5 young bulls for sale, of first-class quality, and AI breeding. om Wm. Grainger & Son, - Londesboro, Ont.

FOR SALE. FIFTEEN OR TWENTY young Scotch Shorthorn cows and heifers. Also 10 bulls, 6 to 21 months; good ones at right prices. om DAVID MILNE, ETHEL, ONT.

Shorthorns for Sale.

12 FEMALES, from 1 to 7 years old, descended from Red Knight (53512), Hopeful (53903), Crown Prince 19637, Canada 19536, and Riverside Stamp 23589, on a Crimson Flower and Stamford foundation. All in good breeding form. om WM. SHIER, SUNDERLAND, ONT.

R. MITCHELL & SON,

Burlington Jct. Station, Nelson, Ontario, Breeders and importers of

SCOTCH SHORTHORNS.

Offer for sale:
12 Canadian-bred females.
11 Imported females.
4 Imported bulls.
7 Canadian-bred bulls.

SPRINGHURST SHORTHORNS.

The herd is largely of Cruickshank and other Scotch sorts, and is headed by the Inverhulme-bred bull, Knuckle Duster (imported) (72793). Herd has furnished the Fat Stock Show champion three times in the last five years.

Choice young stock (both sexes) FOR SALE. H. SMITH, - HAY, ONT. Exeter Station on G. T. R., half a mile from farm. om

Maple Lodge Stock Farm

ESTABLISHED 1854.

SHORTHORNS—An excellent lot of young bulls, and a special value in young cows and heifers in calf to our imported Knuckle Duster.

LEICESTERS Imported and home bred—the best.

ALEX. W. SMITH, om MAPLE LODGE P. O., ONT.

H. CARGILL & SON,

CARGILL, ONTARIO, CANADA.

WE have the largest herd of Cruickshank and Scotch-bred imported cattle in Canada. Herd headed by the Duthie-bred Golden Drop bull, imp. "Golden Drop Victor," assisted by the Marr-bred Princess Royal bull, imp. "Prince Bosquet." The herd was augmented in August last by a fresh importation of fifty-two head, personally selected by Sylvester Campbell, of Kinellar, an expert judge both as to individuality and pedigree. The cattle in this lot will compare very favorably with any lot yet imported. All females of suitable age are bred to the very best bulls obtainable. Correspondence or personal inspection invited. Catalogue and service list upon application.

Cargill Station is on the Farm, Half a Mile from Barns, and 70 Miles North-west of Guelph. See Catalogue for Map.

The Breed THAT FIRST Hillhurst Famous
MADE THE HIGHEST-PRICED
SHORTHORN FEMALES

Ever sold in Great Britain and the sire and dam of the 4,500-guinea Duke of Connaught were bred at Hillhurst. Today "Joy of Morning," the highest-priced Scotch-bred bull ever imported to Canada, and "Scottish Hero," brother in blood to the Royal champion "Marengo," are in service in a herd of 65 Scotch and Scotch-topped Shorthorns in a hilly limestone district, where cool summers, green pastures and winter food more closely approach Aberdeenshire conditions than any other part of the continent. **HAMPSHIRE DOWN and SHROPSHIRE SHEEP.**

M. H. COCHRANE,
HILLHURST STATION. om COMPTON CO., P. Q.

Isaac Usher & Son, QUEENSTON, ONT.,

Manufacturers of QUEENSTON CEMENT. Proprietors of

Queenston Heights Stock Farm.

Shorthorn Cattle.

Herd headed by Lord Gloster (26995), by Abbotsford. We have for sale seven young bulls, 4 to 20 months; also young cows and heifers. Stock offered for sale sired by or bred to such noted bulls as imp. Guardsman, Royal Standard, Abbotsford, Lord Gloster, Indian Count.

P. O., TELEGRAPH AND TELEPHONE, QUEENSTON, ONT.

FARM 3 MILES NORTH OF NIAGARA FALLS.

Rapids Farm Ayrshires.

REINFORCED BY A RECENT IMPORTATION OF 20 cows, 2 bulls, and a number of calves, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows this year. Will be represented at the Exhibitions at—

... Toronto, London, and Ottawa, in September.

Do Not Fail to See Them. Young Bulls and Heifers for Sale, bred from High-class Imported Stock.

Robert Hunter, Manager
for W. W. Ogilvie Co., Lachine Rapids, Quebec.

W. C. Edwards AND COMPANY, IMPORTERS AND BREEDERS
Laurentian Stock and Dairy Farm, Pine Grove Stock Farm, ROCKLAND, ONTARIO.

Ayrshires, Jerseys, Shropshires, Berkshires

Our excellent aged herd of Ayrshires is headed by our noted imported bull Cyclone. Tom Glen heads the young herd and is the son of St. Anne's best by the Jerseys. The young stock are all from the best blood.

A. E. SCHRYER, Manager. The imported Missie bulls, Marquis of Zenda and Scottish Pride, at the head of herd, assisted by British Knight. We have a few extra good young bull calves that will be ready for the coming season. om J. W. BARNETT, Manager.

We can be reached either by telegraph, the C. P. R., or C. A. R.; the C. A. R. making connection with the G. T. R. at Oxford Junction. The land is our station on all lines.

A QUICK, SHARP CUT
 hurts much less than a bruise, crush or tear
 Done with the **KEYSTONE KNIFE**
 is the safest. Quick, sharp cut. Cuts from four
 sides at once. Cannot crush bruise or tear.
 Most humane method of dehorning known.
 Took highest award World's Fair. Write
 for free circulars before buying.
 Owned and Manufactured by R. H. McKenna, P.S., Picton, Ont.

For sale
 10 Shorthorn bulls,
 20 Leicesters and South-
 down rams.
 A lot of Berkshires. All
 choice. Send for catalogue.
E. JEFFS & SONS, BOND HEAD.

Shorthorns for Sale.
 Of the Fashion and Lavender tribes; well-developed,
 healthy, and thick-fleshed; red and roan animals.
 Golden Robe now heads the herd.
WM. G. HOWDEN,
 Ontario Co. Columbus, Ont.

ASHTON FRONT-VIEW STOCK FARM.
 Four Shorthorn Bulls for sale, from 8 to 15
 months old; all of choice breeding. Also Cotswolds
 of all ages for sale at all times. Visitors welcome.
A. J. WATSON, Castlereag, Ont. C. P. R.
 Station and Telegraph Office, Bolton; or G. T. R.,
 Palgrave.

Good Young Bulls
 Of best Scotch breeding, and a desirable lot of
HEIFERS
 of the low-down, blocky type. Royal Prince = 3121 =
 (bred by J. & W. B. Watt), a worthy son of Imp.
 Royal Sailor = 18959 =, heads the herd.
H. K. FAIRBAIRN,
 Thedford P. O. and Station, Ont.

Shorthorns and Shropshires
FOR SALE.
 Am offering a few young bulls and heifers from
 imported Roselud and Countess females, upon
 which have been employed imported sires from
 Duthie, Campbell, and Cruickshank herds. Shrop.
 ram and ewe lambs.
WM. D. DYER, COLUMBUS, ONT.

JAS. DORRANCE,
 SEAFORTH, ONTARIO,
 BREEDER OF
Shorthorn Cattle and Berkshire Pigs
 Young stock always for sale.

SHORTHORNS FOR SALE. Of the Waterloo,
 Daisy, Fair Queen, Necklace, Nonpareil, Lady
 Jane, Beauty, and Lavender tribes. Bulls fit for sgr-
 vice, and females of all ages; also, the stock bull,
 Kenellar of York.
F. MARTINDALE,
 York, Ont.

SCOTCH SHORTHORNS.
 100 head to select from.
 Imp. Diamond Jubilee = 18861 =
 at the head of the herd. 25 grand
 young bulls, and cows and heifers
 of all ages, of the most approved
 breeding.
T. DOUGLAS & SONS,
 Strathroy Station and P. O.
 Farm 1 mile north of the town.

SHORTHORN CATTLE
AND LINCOLN SHEEP.
 Imp. Prime Minister at head of herd. Seven young
 bulls for sale—good ones. Also a few females. Stud
 rams all imported from H. Dudding, Esq.; the same
 blood as the 1000-guinea ram.
J. T. GIBSON,
 DENFIELD, ONT.

W. R. Bowman,
 BREEDER OF
REGISTERED POLLED ANGUS CATTLE,
SUFFOLK AND SHROPSHIRE DOWN
SHEEP, YORKSHIRE SWINE (bacon type).
 30 Rams at \$10.00 to \$15.00.
 50 Ewes at \$10.00 to \$15.00.
 Sows in farrow, \$15.00. Young pigs, \$6.00.
 6 Bulls of various ages.

Shorthorns and Leicesters.
 Herd Established 1855.
 A number of young bulls, cows and heifers for
 sale. Herd headed by imported Christopher 28839,
 and Duncan Stanley = 18364 =. Grand milking cows
 in herd. Also a number of Leicesters of both sexes,
 from imported foundation.
JAMES DOUGLAS,
 CALEDONIA, ONT.

SCOTCH SHORTHORN BULLS AND HEIFERS
HERD ESTABLISHED IN 1872.
 Such sires as imported Royal George and imported
 Warfare have put us where we are. Imported Blue
 Ribbon now heads herd.
A. & D. BROWN,
 ELGIN COUNTY, IONA, ONTARIO.

8 Scotch-topped
SHORTHORN BULLS **8**
 and a few females, sired by Revenue and
 Bonnie Lad, a son of (imp.) Blue Ribbon.
ROBT. DUFF,
 G. T. R. and C. P. R. Myrtle, Ont.

ASK FOR
KHAKI
 THE COUNTRY DEMANDS
 A CHANGE IN THE COLOR
 OF

FLOOR
PAINT
 THE NEW COLOR—
KHAKI

Covers well—
 Does not show the Dust—
 Durable and Permanent.

THE
IDEAL PAINT
 FOR
 LASTING QUALITIES
 AND ECONOMY.

SOLE MAKERS
 THE
CANADA PAINT CO., LIMITED
 MONTREAL AND TORONTO.

ASK FOR
KHAKI

Maple Glen Stock Farm.
 The home of officially tested, Advanced Registry, dairy
 test and showing-win-**HOLSTEINS.** A grandson
 ning herd of Sylvia
 now for sale. Price is in keeping with breed-
 ing and performances.
C. J. GILROY & SON,
 Brockville, on C.P.R. or G.T.R. Glen Buell, Ont.

Herefords for Sale.
 Three or four one-year-old bulls.
 Cows and heifers.
 The Plains Farm, Arkell; Moreton Lodge, next the
 O.A.C. College; containing 200 to 250 acres each.
The F. W. Stone Stock Co.,
 Guelph, Ont., Can.

90 HEAD
 High-quality,
 Early-maturing
Herefords
 Prizewinners.
 Young bulls,
 cows,
 heifers.
 The blood of "Corrector," "Eureka," "Ancient
 Briton," and "Rupert," on an "Anxiety" foundation.
 Send for illustrated catalogue.
H. D. SMITH, COMPTON, QUE.

HEREFORDS FOR SALE.
 THE HERD of upwards of 90 head of registered
 animals; contains the blood of the best English
 herds, with imported True Briton and Likely
 Lad at the head. Stock of both sexes and all ages
 for sale. Correspondence or a personal visit invited.
A. S. HUNTER,
 DURHAM, ONT.

YORKSHIRES AND HOLSTEINS:
 Bows and sows, not akin, from 2 to 6
 months, from prizewinners at Toronto
 and local shows. A 3-year-old bull, of
 the Tirania family; and young stock at
 reasonable prices.
R. HONEY, Warkworth, Ont.

GOSSIP.
 Mr. Thomas Lawson has sold his prize horse,
 Raphael, bred by Mr. Cross, of Knock
 don, to Mr. George Campbell, Markham, Ont.,
 and he is to be early in Sept. This is a three-
 year-old, bred by the great horse, Sir Eyraud
 (5333), and is the best bred of the Glasgow
 premium series of the best breeding horses
 of our day. Raphael was the fine mare, Robina
 (1129), a prize mare in her time, and got by
 Harold, also a prizewinner. — *Scottish*
Farmers.

Mr. A. W. Smith, Maple Lodge, Ont., writes
 regarding the Leicester ram of his breeding
 introduced in this issue: "He was 1st at London
 last year, beating the winners at Toronto and
 Ottawa. He has superb quality, which, alas,
 does not get recognition with too many judges
 at our shows, and although not a large looking
 sheep, carries a weight of 340 pounds at two
 years, which is surely enough. Then, with his
 very hard-ome, though strong and masculine
 heat, great heart girth, thoroughly covered
 back and loin, and full leg of mutton, and
 thoroughly covered with a coat of beautiful,
 lustrous wool, he satisfies me as nearly as we
 get them. There is his breeding is the best. His
 sire and sire's sire were both 1st prize shearings
 at Toronto and London. His dam was by a
 Balfour ram and out of a Polwarth ewe. His
 sire won for us this year 1st and championship
 at New York State Fair, Syracuse."

**JAS. A. RUSSELL'S BERKSHIRES AND YORK-
 SHIRES.**
 Since our introductory acquaintance with
 Mr. Jas. A. Russell, at Precious Corners, a few
 miles north of Cobourg, Ont., we have watched
 with interest the progress he has made with
 Berkshire and Yorkshire swine. In the local
 showyards within Mr. Russell's reach, he has
 been able to capture most of the best premiums
 for which he has competed. When new blood
 appeared necessary, we have always found him
 in search of the very best obtainable. Among
 his latest purchases was the splendid Yorkshire
 sow, Summerhill Fame, of the noted Holywell
 strain, from Mr. D. C. Platt, just before she
 won the 1st prize in a strong class at Toronto.
 She is a grand individual, and as she is being
 bred to Mr. Platt's Bottesford Wonder, we hope
 and expect to hear of her again. At the same
 time, the 2nd prize winning boar under six
 months was selected to head Mr. Russell's herd.
 He too is a strong individual, coming from
 English parentage, and will do much to
 strengthen the herd which he heads. Another
 matron worthy of special mention, and which
 is due to farrow in October, is Oak Lodge Cin-
 derella 25th, a good representative of the
 worthy family from which she derives her
 name, and in her prime. Oak Lodge Queenie,
 the yearling daughter of O. L. Royal Queen
 (2500) is also catalogued on the matron list,
 and doing excellent service for her owner and
 breeder. They are a lot of which any enterpris-
 ing breeder has reason to be proud. The
 head of the Berkshire pens, Mr. Russell is the
 proud possessor of King Victor of Highclere,
 whose name designates from where he origi-
 nated. A hog of immense length, substance and
 quality, full of Berkshire character, and a sire
 of very satisfactory stock, and to mate with him
 Mr. Russell has a string of such sows as Pansy
 Blossom, of the Baron Lee tribe, a winner last
 year under six months at the large fairs.
 She was due in September to Victor. Another
 good sow for November farrowing is Nancy, a
 sow which has established her ability to
 produce good stock, and from which her owner
 has a few excellent young things on hand. A
 few young sows ready to be bred are among
 the stock, and those requiring good young
 things will do well to note Mr. Russell's offer-
 ings from time to time.

RIDGEDALE HOLSTEIN-FRIESIANS
 Two young bulls of choice breeding for sale; also
 some heifers. Prices reasonable. Write for particu-
 lars, or come and see them. **R. W. WALKER,**
 Shipping stations: Utica P. O.
 PORT PERRY, G. T. R.; MYRTLE, C. P. R.

Maple Hill Holstein-Friesians
SPECIAL OFFERING.
 Bull calf 8 months old, sired by DeKol 2nd's Paul
 DeKol Duke. Bull calf one week old, sired by Daisy
 Teake's King. Also several fine females, all ages.
G. W. CLEMONS,
 HARRISBURG STN., -018 ST. GEORGE P. O., ONT.

WE WANT TO SELL A FEW
Holstein Heifers, coming 2 years old
 or a few young Cows.
 THEY are of the richest and
 largest producing
 strains, fine individuals, and bred to as good bulls as
 there are living. We have a few bull calves and
 yearling bulls also for sale.
HENRY STEVENS & SONS,
 LACONA, OSWEGO CO., N. Y.

BROOKBANK
 Is headquarters for Holstein bulls. They are going
 fast; be quick if you want one. In writing, state
 age, etc., preferred.
GEO. RICE,
 Oxford Co. Currie's Crossing, Ont.

GLEN ROUGE JERSEYS.
WILLIAM ROLPH, Markham, Ont., offers
 twelve Jersey Bulls and Heifers (pure St. Lamberts),
 out of tested cows. Grand individuals. Prices right.

FOR SALE.
6 YEARLING
JERSEY
BULLS.
 sired by Brampton's Mon-
 arch (imp.), and from
 tested cows; also regis-
 tered and high-grade
 springers.
B. H. BULL & SON, BRAMPTON, ONT.

HORSEMEN! THE ONLY GENUINE IS
COMBAULT'S
CAUSING BALSAM.
 The safest, Best BLEISTER ever used. Takes
 the place of all liniments for mild or severe action.
 Removes all Bunions or Hemorrhoids from Horses and
 Cattle. **SUPERSEDES ALL CAUTERY OR**
FIRING. Impossible to produce scurf or bluish.
 Every bottle is warranted to give satisfaction. Price
 \$1.50 per bottle. Sold by Druggists, or sent by
 Express, charges paid, with full directions for its
 use. Send for free descriptive circulars.
THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

Water Basins
Common Sense Logic.

 Point 4. No up-to-date Dairyman who studies
 economy can do without our Water Basin. No
 other device in your barn can save you as many
 dollars and cents. Prove it.
 Point 5. (See next issue.)

Ontario Wind Engine & Pump Co.
 TORONTO, LIMITED.

For sale at a bargain, to make room, four
 choice A. J. C. C. yearling bulls; eight cows,
 black points; by St. Lambert of Arklost and Baron
 Hugo. Also 50 pure Tamworth pigs from prize
 stock.
H. E. WILLIAMS,
 Sunnylea Farm, Knowlton, P. Q.

TO THOSE WANTING
A SURE PRIZEWINNING BULL
 to head their Jersey herd, I offer
Prince of Belvedere 11655
 5 years old, solid bronze fawn. Dam, 174 lbs.
 butter a week; sire's dam, 20 lbs. 6 cts. a week.
 Also, Golden Fawn Cow, 5 years, superb udder,
 grand butter record.
 Also a Young Stock, both sexes and rare quality.

MRS. E. M. JONES,
 Box 324, Brockville, Ont.

WILLIAM WILLIS, Newmarket,
 Ontario,
 Breeder of St. Lambert Jersey cattle, with Count
 of Pine Ridge, a grandson of the great Adelaide of
 St. Lambert, at head of herd. Also registered
 Cotswold sheep.

DON JERSEY HERD.
 Offering choice young Bulls and
 Heifers by Costa Rica's Son.
DAVID DUNCAN,
 DON, ONTARIO.
 Nine miles from Toronto Market.

CONTAGIOUS ABORTION
 HAS BEEN CURED BY
WEST'S FLUID
 In several of the finest herds of prize stock
 in the country; but as it would injure the
 reputation of the breeders, they will not
 give written testimonials. These state-
 ments are facts.
 Write for circular on this disease, specially
 prepared by a V. S.

Headquarters for "STANDARD" Sheep Dip.
 Manufacturers: **The West Chemical Company,**
 Agents Wanted in **TORONTO, ONT.**

SHOW AYRSHIRES FOR SALE.
 As we are not going to show any cattle at the fairs
 this year, we will sell the imported prizewinning
 bull, Napoleon of Auchincbrain, champion and head
 of first prize herd at Toronto, 1898. Also first-class
 2-year-old bull and three choice bull calves of last
 fall. These are all fit for the showing, as we kept
 them for that purpose. For prices and particulars
 come and see, or write. **James Boden, Mgr.,**
 St. Anne de Bellevue,
 Quebec.
 Farm close to St. Anne Station,
 G.T.R. & C.P.R., 20 miles west of Montreal.

SON,
 le in Canada,
 Drop Victor,
 The herd
 two head, per
 both as to in-
 with any lot
 obtainable,
 list upon
 on

s, and 70 Miles

Famous

LES

inea Duke of Con-
 nest-priced Scotch-bred
 the Royal champion
 in a hilly limestone
 ch. Aberdeenshire con-
 OPSHIRE SHEEP.

TON CO., P. Q.

ENSTON,
ONT.,

ctors of

Farm.

ven young bulls, 4 to 20
 ed to such noted bulls

NSTON, ONT.

hires.

and a number of calves,
 and female champions at
 at—

ra, in September.

s for Sale, bred from
 stock.

, Manager



s and Shropshires.

ulls, Marquis of Zenda and
 head of herd, assisted by
 e a few extra good young
 e ready for the coming

ARNETT, Manager.

A. R. making connection
 7-1-y-on-



You Hear!
when you use
Wilson's Common Ear Drums
The only scientific sound conductors. Invisible, comfortable, efficient. They fit in the ear. Doctors recommend them. Thousands testify to their perfection and to benefit derived. Information and book of letters from many users, free. **WILSON EAR DRUM CO., 403 Trust Bldg., Louisville, Ky.**

WM. WYLIE Importer and Breeder of High-class Ayrshires
The winnings of this herd last season (1899) were 37 prizes, 17 of them being firsts; also gold and silver medals at the leading fairs in Canada. The sweepstakes at Toronto, London and Ottawa belong to this herd—one imported bull, 13 imported females and a number of A.I. home-bred animals. A few choice cows, heifers and calves for sale at moderate prices. Address—**WM. WYLIE, Howiek, P. Q.**

Ayrshire Bulls: Write to **J. YULL & SONS, Carleton Place,** for special prices on Ayrshire bulls from 14 years to 6 months. Four over 15 months, fit for service, from special milking stock. Sired by prize bull, Jock of Burnside—1684—, also females of all ages. Shropshire sheep of all ages; a number of fine ram lambs. Berkshire pigs of either sex, of the best bacon type. **B. P. Rocks.**

AYRSHIRE CATTLE.
KAINS BROS., Byron, Ont. (R. R. London), are offering a number of grand young bulls, prize-winners; also a few choice females. Prices right.

Maple Cliff Dairy and Stock Farm.
FOR SALE:
Ayrshires—6 yearling bulls, females any age. Tanworths—40 boars and sows of different ages. Berkshires—3 boars, a number of sows.
R. REID & CO., Hintonburg.
Farm 1 mile from Ottawa. Electric cars to farm. om

FAMOUS ALL OVER THE WORLD.
ALFRED MANSELL & CO.,
LIVESTOCK AGENTS AND EXPORTERS, SHREWSBURY.
BRITISH STOCK selected and shipped to all parts of the world. Write for prices to **ALFRED MANSELL & CO.,** Shrewsbury, England, or to our American representative, **Robert Miller, Stouffville, Ont., Canada.**

W. W. Chapman,
Secretary of the National Sheep Breeders' Association,
Secretary of the Kent or Romney Marsh Sheep Breeders' Association,
and late Secretary of the Southdown Sheep Society.
Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.
Address: **FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W.**
Cables—Sheepcote, London. om

J. E. CASSWELL, Loughton, Folkingham, Lincolnshire.
Breeder of Lincoln Long-wooled Sheep, Flock No. 46. The flock was in the possession of the present owner's great-grandfather in 1785, and has descended direct from father to son without a single dispersion sale. J. E. Casswell made the highest average for 20 rams, at the "Annual Lincoln Ram Sale," 1895 and 1897. The 1896 rams were all sold for exportation. Ram and ewe tags and shearings for sale, also Shire horses, Scotch horns, and Dark Dorking fowls. Telegrams: "Casswell, Folkingham, Eng." Station: Billingborough, G. N. R.

Present Offering:
Dorset lambs (either sex).
Shropshire lambs (either sex).
Chester White pigs (June and Sept. litters) of the bacon type.
For particulars, write to
R. H. HARDING, THORNDALE, ONT.

GOSSIP.

The firm of W. & H. Jones, Mount Elgin, Ont., are still in the field with choice Poland-China hogs, and when we met Mr. Jones recently, he informed us that they were stocked with a few exceptionally choice young sows ready to be bred, as well as young boars fit for service, and that when the smoke of the big fairs had cleared away they would be pleased to attend to the wants of those requiring such. A few young boars were also on hand that they were not afraid to recommend. Watch their offerings in their advertisement.

Mr. J. J. Lenten, formerly of Oshawa, and for years a valued contributor to the FARMER'S ADVOCATE, is now managing an extensive and first-class poultry establishment on Green-Springs Valley farm, near Baltimore. The varieties of poultry raised on the farm are White, Golden and Silver Wyandotters, Barred and White Plymouth Rocks, and White Leghorns, besides Pekin ducks. The poultry house and all its accessories are strictly modern and up-to-date, and no effort or becoming expense are spared to maintain the flock and the premises in the best possible condition.

Messrs. A. Hume & Co., Menie, Ont., write us regarding their 2nd-prize herd of Ayrshires at Toronto, illustrated in this issue. They are: The yearling bull, White Cockade, 1st at Toronto in 1899 as bull calf under six months; 1st at London, 1900, as 1 year old. Next is the imp. cow, Eva of Barcheskie, twice 2nd-prize cow at Toronto, and by her side is her granddaughter, the 3-year-old cow, Snowflake, 2nd at Toronto in 1899 as 2-year-old heifer, and 3rd in 1900 as 3-year-old cow. Then the yearling heifer, Little Love, 1st at Toronto in 1899 as heifer calf under six months, and again was put at the top in 1900. Then to the left is the beautiful unbeaten 2-year-old heifer, Eva's White Pearl, as her name indicates, a daughter of the imp. cow, Eva, winner of 1st both at Toronto, London and elsewhere in 1900. We had to leave out the heifer under one year, which, with the others named, composed the herd as shown, but she is of the same quality and breeding, winner of 2nd both at Toronto and London.

BIRMINGHAM SHORTHORN SHOW AND SALE.
At the annual autumn show and sale of Shorthorns at Bingley Hall, Birmingham, Sept. 14th, there were 236 entries, of which 125 appear in the list reported as having been sold. The general quality of the stock is said to have been not of a high-class description, and except in a few special cases the prices realized were very moderate, a large proportion being drawn at 21 guineas, which suggests the probability that 20 guineas was the upset price, as none are reported lower than 21 guineas. Fifty guineas was reached in about a half dozen instances, 82 guineas twice, and these figures were exceeded only in the single case of Mr. J. H. Wheatling's Jasper Prince, purchased by the Marquis of Cambridge at 135 guineas. When it is remembered that a good list of cash prizes were offered as an inducement to the entry of a superior class of animals, the sale can hardly be described as a very satisfactory one.

MR. J. FLOWER'S ANNUAL SALE OF HAMPSHIRE DOWNS.

One of the most successful sales ever held by Mr. J. Flower, of Chilmark, Salisbury, of his celebrated Hampshire Downs was that which took place at Butford Fair last August, the annual sale place of his noted ram lambs. Of these, 100 were catalogued, eight being let for the season, a period of five to seven weeks. The first one made the very satisfactory price of \$575, the agent of Lord Carnarvon being the purchaser; \$300 being the next highest price, to Mr. Dibden; whilst the remaining six realized values that brought the average for the eight let ram lambs to \$206 per head all round. For the ram lambs sold, the demand was as good as could be; in fact, there was the keenest competition all through, and the average at \$78 per head. The draft or full-mouth ewes sold even better relatively. Of these there were 100, and the whole of them were purchased by one buyer, at \$28 per head all round, a record price for so large a number of this age, and one that fully typifies the high value of Mr. J. Flower's flock.

Dorset Horn Sheep
THE largest flock in America. The most celebrated prizewinners at the Columbian Exhibition and Canadian exhibitions. Contains more Royal winners than any other. Awarded 5 out of 8 first prizes at Toronto, London and Ottawa in 1900. Flock of 300. Stock for sale always on hand.

John A. McGillivray, Uxbridge, Ontario.

Dorset Rams.
PARTIES interested in raising early lambs for Easter market will make no mistake in using this breed. We have two good shearings and a number of good ram lambs for sale at from twelve to twenty-five dollars—two winners at large shows.

James Bowman, Elm Park, GUELPH.
LEICESTER
Rams, ram lambs, ewes. All lambs sired by the first-prize ram at Toronto in '99. Also Shorthorn cattle, Berkshire pigs, and Embden geese.
MAC CAMPBELL, Northwood.

Leicesters
only. Rams and ram lambs, shearings ewes and ewe lambs, having the best blood, with quality and size.
C. & E. WOOD, Freeman, Ont.

G. A. GREER & J. LYONS, Hillside Farm, Lucknow, Ont.
BREEDERS OF REGISTERED LEICESTER SHEEP which got their foundation by the well-known E. Gaunt & Sons, St. Helen's. We have four ram lambs which would do ample justice to any breeder in our line. Also a two-shearing ram for sale at a very low figure. Barred P. Rock and W. Leghorn chicks for sale. Everything in good condition.
Farm half mile from station.

ELLWOOD Steel Wire Fences.
Six styles, all heights, for every fencing purpose on Farms, Ranches, Orchards, &c.
Strong, Humane, Cheap, Durable, FULLY GUARANTEED.
Heavily Galvanized Best Steel Wires. We have agents everywhere. ELLWOOD FENCES are easy to get, easy to pay for, easy to put up. If you cannot find an agent write to the makers.
Ellwood Standard Style.
AMERICAN STEEL & WIRE CO., Chicago or New York.

.Fairfield Flock of Lincoln Sheep.
THE largest flock of imported Lincolns and the largest number of Royal first-prize winners of the breed in America. Representatives of this flock won the first flock prize at Toronto last year and this, and the championship at London both years. Over 60 imported sheep now in flock, and over 100 field rams and ewes, purchased in England, to follow soon. A large number of yearling rams and ewes, ram lambs and ewe lambs for sale.
Write us for prices, or come and see.
J. H. & E. PATRICK, ILBERTON, ONT.

SMITH EVANS, GOUROCK, ONT.
Breeder and importer of registered Oxford Down Sheep. Selections from some of the best flocks in England. Stock for sale at reasonable prices. Inspection invited.
6-1-y-o

LYNDEN FARM.
OXFORDS AND SHORTHORNS.
IMPORTED and home-bred rams. Also, one 10-months bull.
Post and telegraph offices.
R. J. HINE, Dutton, Ont.

Plainview Oxfords.
WE are offering shearing rams and ram lambs, and a limited number of choice ewe lambs.
J. H. JULL & SON, MOUNT VERNON, ONT.

BROAD LEA FARM.
Ram and Ewe Lambs } Oxford Down Sheep (Yearling Rams)
FOR SALE.
HENRY ARKELL, Teeswater, Ontario.

Oxford Down Sheep.
IMPORTATION ANNUALLY.
50 yearling rams.
100 ram lambs.
For sale reasonable.
HENRY ARKELL, Arkell, Ont.

Summerhill Oxfords
Flock Established Over 20 Years.
Offering SHEARLING EWES AND RAMS, and an excellent lot of 1900 lambs of both sexes.
PETER ARKELL & SONS, TEESWATER, ONT.

Cotswolds for Sale.
8 VERY CHOICE SHEARLING EWES, and this season's crop of lambs, of both sexes. All of good size, with quality, and well covered.
JOHN I. BALSDEN, - Balsam, Ont.
IT PAYS TO ADVERTISE IN THE **FARMER'S ADVOCATE**

Shropshires for Sale
9 Shearling Rams and 12 Ram Lambs, descended from Cooper, Campbell and Dryden importations. Also 3 very choice 2-year-old rams and an aged sheep of very superior quality. All well covered.
Malcolm McDougal & Sons, BRUCE COUNTY, Tiverton, Ont.

SHROPSHIRE FOR SALE.
BRED up from imported foundation. Imported sires have been employed the last two seasons. We are offering shearings of both sexes; also our entire crop of lambs and a few choice breeding ewes.
T. LLOYD-JONES & SONS, BRANT COUNTY, BURFORD, ONT.

Shropshire Rams and Ewes
Newly imported from the greatest English breeders. Home-bred rams and ewes of best quality. Scotch Shorthorns and Clydesdale horses for sale at moderate prices, and in large numbers, by
ROBERT MILLER, STOUFFVILLE, ONT.

LITTLE'S PATENT FLUID SHEEP DIP AND CATTLE WASH
THE ORIGINAL **Non-Poisonous Fluid Dip**
Still the favorite dip, as proved by the testimony of our Minister of Agriculture and other large breeders.
For sheep. Kills ticks, maggots; cures scab; heals old sores, wounds, etc., and greatly increases and improves growth of wool.
Cattle, horses, pigs, etc. Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.
Prevents the attack of Warble Fly.
Heals saddle galls, sore shoulders, ulcers, etc. Keeps animals free from infection.
No danger, safe, cheap, and effective
Beware of imitations.
Sold in large tins at 75 cents. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to breeders, ranchmen, and others requiring large quantities.
SOLD BY ALL DRUGGISTS. SEND FOR PAMPHLET.
Robert Wightman, Druggist, Owen Sound.
Sole agent for the Dominion.

Shropshire rams, ram and for Sale
ewe lambs

Descended from importations made from Tanner, Minton, Barber, Farmer, Bowen Jones and Thomas, upon which have been employed the best English-bred sires. Also an imported shearing ram, well covered. o **GEO. B. PHIN, Hespeler, Ont.**

Shropshires FOR Sale

Rams and ewes of good breeding, fine lusty fellows. Prices reasonable. -om

ABRAM RUDELL, HESPELER, ONT.

Shropshires for Sale

Ram and ewe lambs descended from Cooper and Mansell foundation, upon which we have employed Mansell-bred sires. We breed for quality and fleece. Shorthorns later. o
Locust Hill, C.P.R. **PUGH BROS.,**
Pickering, G.T.R. Whitevale, Ont.

SHROPSHIRE SHEEP AND CHESTER WHITE SWINE.

WM. E. WRIGHT, GLANWORTH, ONT.

Fairview Shropshires.

A few good rams still on hand. A splendid lot of ewes (imported and home-bred), bred to my best stock rams, are now offered at good values. They are the producers of winners. om
JOHN CAMPBELL, Woodville, Ont., Can.

SHROPSHIRE SHEEP.

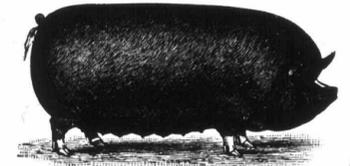
Shearing rams and ewes; also the 1900 crop of lambs, well covered and uniform. **C. H. ROWE, ORILLIA, ONT.**

BIRDS of Barred, Buff, White Rocks; Golden, Silver, White, Buff Wyandottes; White, Brown, Buff Leghorns; Spanish, Minorcas, Houdans, Hamburgs, P. Cochins, Langshans, Games, and ducks. **R. J. & A. LAURIE, Wolverton, Ont.**

TAPE BROS., importers and breeders of **Ridgetown, Ont., Duroc Jersey Swine. TAPE BROS., Ridgetown, Ont.**

Large English Berkshires

HERD headed by two imported first-prize boars. Young boars and sows from imp. prizewinning sires and dams. Write for prices. o
H. BENNETT & SON, St. Williams, Ont.



Berkshires—Large, lengthy, English type. Five first-prize boars in service. Spring pigs ready for shipment. Boars fit for service. Sows ready to breed. **GEORGE GREEN, Fairview, Ont.**

Snelgrove Berkshires.

When others fail to please you with a good pig, come to us. Our herd is bred from the best strains of the Large English Berkshires. We now have a very promising lot of young pigs. April farrow, sired by Colonel Brant 5950 (first prize under 12 months, Toronto, 1900) and Dictator 5944. Write for prices. -om

SNELL & LYONS, Snelgrove, Ont.

E. D. GEORGE, PUTNAM, ONT., Importer and Breeder of **Ohio Improved Chester White Swine.**

The largest and oldest established registered herd in Canada. I make this breed a speciality, and furnish a good pig at a fair price. Write for prices. -o

FOR SALE.

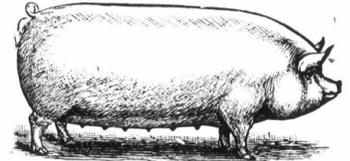
YORKSHIRES AND BERKSHIRES, of both breeds and sexes, from 2 to 4 months; large, lengthy, smooth type. Express prepaid and satisfaction guaranteed. **JAS. A. RUSSELL, Precious Corners, Ont.**

Improved Yorkshires

FOR SALE. of the most popular families. All ages and both sexes now ready for immediate shipment. Write for what you want. Prices reasonable—consistent with quality. o
E. DOOL, Hartington, Ont.

PLEASE MENTION FARMER'S ADVOCATE.

OAK LODGE
Type of Yorkshires



We have now on hand a large herd of pigs of different ages, and they are as good as we have ever offered. The winnings of this herd have been greater than all other herds combined at the largest Canadian exhibitions. All stock shipped to order, fully guaranteed. om
Brethour & Saunders, Burford, Ont., Can.

Large White Yorkshires.

An offering during this month a grand lot of boars and sows ready for breeding; pairs supplied, not akin, from show stock; also several sows in pig to imported boar. Young pigs from 2 to 3 months old, all of the most improved bacon type. Registers furnished. Express prepaid. Address: **H. J. DAVIS, BOX 290, WOODSTOCK, ONT.**

YORKSHIRE AND ESSEX PIGS for sale, of the most approved type. We are offering young breeding stock of both sexes and breeds, and will be at Toronto Fair with a few choice things. Also have a limited number of imported Yorkshire boars and sows, having exceptional quality and valuable blood in their pedigrees. Correspondence invited. **JOSEPH FEATHERSTON & SON, Streetsville, Ont.**

OXFORD HERD OF POLAND-CHINAS
The home of the winners
Having again won the sweepstakes at Toronto, London, Ottawa and Provincial Fat Stock Show, we are offering again young boars and sows of superior quality; bred along the same lines as our winners. **W. & H. JONES, Oxford Co. Mt. Elgin, Ont.**

TAMWORTHS...
Choice sows and boars fit for service, from prizewinning stock, at \$10 each (registered). Correspondence solicited. **D. J. GIBSON, HAZEL DELL STOCK FARM, Bowmanville, Ont.**
The Coldspring Herd of **TAMWORTHS** won the sweepstakes at Toronto last year, and as we have made no preparation to exhibit this year, we can ship exceptionally choice things of both sexes and all ages. **NORMAN M. BLAIN, Brant Co. Coldspring Farm, St. George.**

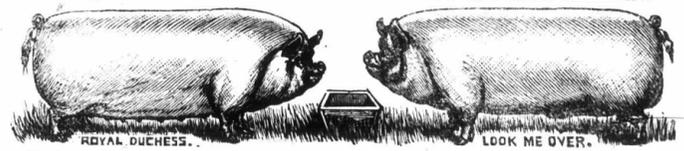
One hundred Tamworth and Improved Chester White Spring Pigs of a true bacon type, our herd having won the best prizes offered at the leading exhibitions throughout Ontario and Quebec for the past ten years. Stock for exhibition purposes a speciality. We pay express charges between stations, and guarantee safe arrival of all stock shipped. Pairs furnished not akin. Write for prices. -o
H. GEORGE & SONS, Crampton P.O., Ont.

Descended from prizewinning sows, tracing through the most noted imported sires, and from equally well-bred boars. Young things a speciality. **WM. R. McDONALD, "Pine Lane Farm," Box 51, RIDGETOWN, ONT.**

Spring Brook Stock Farm.
THE LARGEST and leading herd of Tamworths in America. Stock of best quality from imported prizewinning sires. Stock of all ages for sale. Holsteins of the noted De Kol blood. Write at once for prices and catalogue. **A. C. HALLMAN, WATERLOO CO. NEW DUNDEE, ONT.**

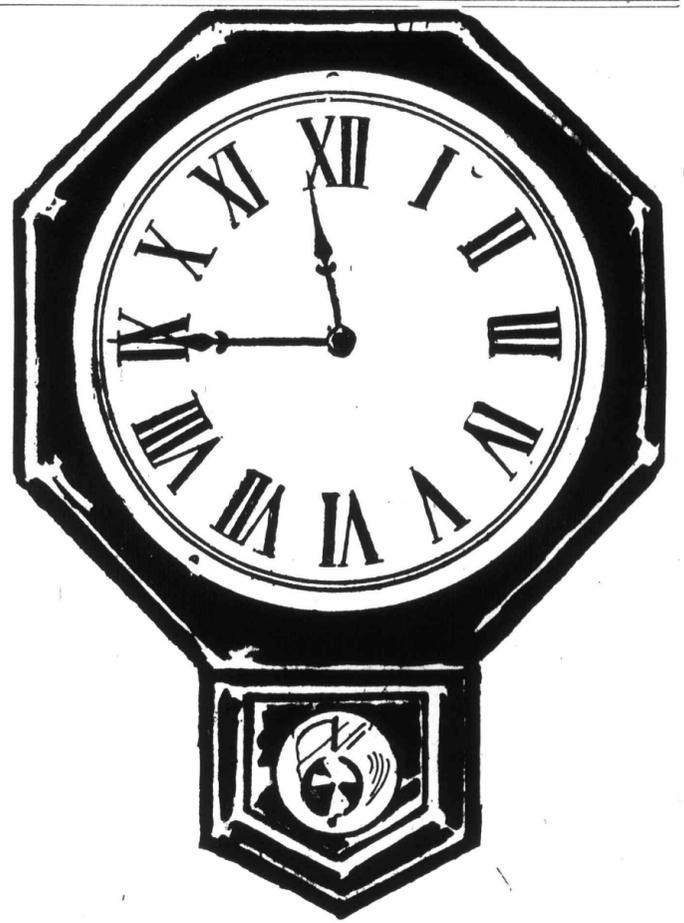
Send us your address and we will show you how to make \$3 a day absolutely sure; we furnish the work and teach you free; you work in the locality where you live. Send us your address and we will explain the business fully; remember we guarantee a clear profit of \$1 for every day's work, absolutely sure, write at once. **IMPERIAL SILVERWARE CO., Box 419, WINDSOR, ONT.**

Summer Hill Herd
HEADQUARTERS FOR THE IDEAL BACON HOG AND EASY FEEDERS.



The largest herd of imported and Canadian-bred Yorkshires in America. Out of 121 exhibits at the leading shows in '99 and 1900, including Toronto and London, we gained 116 awards. Expert judges both at London and Toronto were unanimous in pronouncing our herd far superior to that of our strongest competitors. Won most of the best prizes offered, including first prize for best pen of pure-bred bacon hogs, also grand sweepstakes over all breeds in a class of 13 entries. The foundation of our herd was laid by personally selecting the choicest stock from the most noted breeders in England and Scotland. We have the ideal bacon type—size without coarseness, and easy feeders. Pigs of all ages for sale at moderate prices. Write us for particulars. Telephone, Millgrove, Ont. Telegraph 254 Bay St. S., Hamilton, Ont. om **D. C. Flatt & Son, Millgrove, Ont.**

Detroit Business University,
THE LEADING BUSINESS TRAINING INSTITUTION OF AMERICA.
Over 33,000 students in profitable employment in different parts of the world. Elegant catalogue free on application.
WILLIAM F. JEWELL, Pres. om PLATT R. SPENCER, Secy.



Making Time.

A quarter to twelve and all the morning's work done—all those burdensome pots and pans clean as a whistle, bright as a new pin; the woodwork radiant, and the kitchen linoleum looking like new.

So easy too—with "Sobrite."
"Sobrite" is as good as an extra pair of hands in housework.

SOBRITE 10 CENTS
Rapid action cleaner, will not scratch

BELL..
PIANOS AND ORGANS
 Built to Last a Lifetime by the
 Largest Makers of Pianos and Organs in Canada.
The Bell Organ & Piano Co., Ltd.,
GUELPH, ONT.

HIGHEST HONORS
 EVERYWHERE
 PRESENTED TO
Massey-Harris Co., Limited,
 as Manufacturers of the best Farm
 Implements in the world.
MASSEY-HARRIS CO., Limited,
 AWARDED
GRAND PRIZE
 AT THE PARIS, FRANCE,
 EXPOSITION
 AND
GRAND GOLD MEDAL
 AT THE VERONA, ITALY,
 EXHIBITION.
 In each case this was the
 HIGHEST AWARD OBTAINABLE.

STAY AT
HOTEL LELAND
 The Leading Hotel of the West.
 ALL MODERN CONVENIENCES. RATES, \$2 TO \$4 PER DAY.
 OIL-BUS MEETS ALL TRAINS.
W. D. DOUGLAS, Prop., Winnipeg, Man.

The **SAFETY** Incubators
 and Brooders
 Are the leading hatching and rearing machines built
 in Canada, and you should use them if you wish to
 make the most money out of your poultry. There is
 no duty to pay on them, and they are sold under a
 positive guarantee to please you or your money will
 be refunded. Illustrated descriptive catalogue, con-
 taining much information that will be useful to you,
 will be issued shortly. SEND FOR ONE TO—
J. E. MEYER,
 KOSSUTH, ONT.

Cheese and Butter.
 Makers of these articles, in many instances, do
 not pay the necessary attention to the quality
 of the Salt they use. Some people think
 that "Salt is Salt," and it does not matter
 where it comes from or who makes it. This
 is a great mistake, for it is essential that to
 produce the best Butter or Cheese nothing
 but the purest Salt should be used. The
 number of prizes obtained by users of—
COLEMAN'S OR RICE'S
Dairy Salt
 at the various exhibitions is conclusive proof
 that these brands of Salt stand unrivalled.
 FOR PRICES, ETC., ADDRESS
R. & J. RANSFORD
 CLINTON, ONT.
 Established 1868.
 PLEASE MENTION FARMER'S ADVOCATE.



THE
NATIONAL
FARM
Cream Separator

Manufactured by the Raymond Mfg. Co. of
 Guelph, Limited, manufacturers of the
 celebrated Raymond Sewing
 Machines.

THE National is an up-to-date machine,
 leading all others in separating cream
 by centrifugal force. It is the farmers'
 choice, because it runs easy, skims fast and
 clean, and makes a perfect cream, contain-
 ing any per cent. of butter-fat desired. It is
 also easier to clean than any other. The
 National is built of the very best material
 suitable for the construction of a high-speed
 machine, and with proper care should last a
 lifetime. The bearings are interchangeable
 and easily adjusted. Every machine is guar-
 anteed to do good work, and a trial of the
 "National" is solicited before purchasing
 any other. The already large sale of the
 "National," and the growing demand for it,
 shows how much the Canadian farmers ap-
 preciate a Canadian-made machine that does
 its work so easily and well, and at the same
 time returns such a large profit on the small
 investment. Ask for the "National"; try
 it and buy it.

THE CREAMERY
SUPPLY CO.,
GUELPH, ONT.,
 General agents for Ontario.

MESSRS. CAMPBELL & GLENN,
 381 TALBOT ST.,
LONDON, ONT.,

Agents for the Counties of Middlesex and
 West.

"NATIONAL" NO. 1 HAND POWER.
 Capacity, 330 to 350 lbs. per hour.

The Raymond Mfg. Co'y of Guelph, Ltd.
GUELPH, ONT.



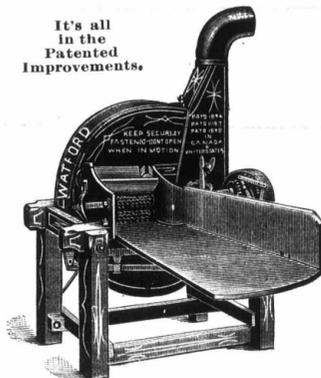
CHAMPION
Fruit
EVAPORATOR
 Dries all kinds
 of Fruits and
 Vegetables.
 Product of a su-
 perior quality.

Cut shows cooking stove size. We make four
 larger sizes, suitable for home or market use. All
 are fire-proof and portable. CATALOGUE FREE.
THE G. H. GRIMM MFG CO.
 84 Wellington St., Montreal, Q.

WANTED.

Every Farmer to know the difference between
 success and failure, and why Thom's Blower
 Elevator Machines can be worked successfully
 with a two-horse tread power, windmill, or other
 small powers, where imitation machines require
 large steam engines.

It's all
 in the
 Patented
 Improvements.



READ THIS— Lots more such testimonials:
 G. P. REME, Earnston, Que., says:—"We are well
 satisfied with your No. 13 Blower Elevator Machine;
 put in 6 tons per hour, and could have done more if
 we had got the corn from the field faster. We only
 used two-horse tread power."
 Capacity of Machines from 6 to 20 tons
 per hour.

THOM'S IMPLEMENT WORKS,
 WATFORD, CANADA.
 ESTABLISHED 1875.

Grand
Prize

1900.

Paris Exposition

THE De Laval "Alpha"
 Cream Separators have
 just been awarded the

GRAND PRIZE

at the Paris Exposition,
 over a large number of
 separator exhibits from
 various countries, the
 "Alpha" De Laval's
 superiority being unques-
 tionable in every material
 respect. Lesser awards of
 different grades of medals were
 made to several other separators.

General Agents for Canada:

Canadian Dairy Supply Co.
 327 Commissioners
 Street, Montreal.

WESTERN BRANCH: 236 King St., WINNIPEG.
 DARCH & HUNTER, LONDON, ONT., Agents for
 Hand Cream Separators for District
 of London.

PLEASE MENTION FARMER'S ADVOCATE.