

PUBLISHED EVERY WEEK. \$1.50 PER YEAR.

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE
SUCCEED
FOUNDED 1876

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

PUBLISHED AT LONDON, ONTARIO MAY 26, 1904. WINNIPEG, MANITOBA. No. 609

THE SOVEREIGN BANK

OF CANADA.
Head Office, TORONTO.
Chief Executive Office, MONTREAL.

BRANCHES:

AYLMER	HENSALL	OTTAWA
AMHERSTBURG	MARKET	PERTH
BELMONT	BRANCH	ST. CATHARINES
BURKE FALLS	OTTAWA	STANBRIDGE
CLAREMONT	MARKHAM	EAST, P. Q.
OLINTON	MARMORA	STIRLING
OREWTON	MILVERTON	STOUFFVILLE
DASHWOOD	MONTREAL	SUTTON, P. Q.
EXETER	MONTREAL	TORONTO
FREIGHTSBURG	WEST END	UNIONVILLE
HARROW	MT. ALBERT	WATERLOO, P. Q.
HAVELOCK	NEWMARKET	SURTRON
	MOUNT FOREST, ONT.	

This Bank is fully equipped to transact all business in accordance with modern ideas. Savings Bank Departments at every Branch. Deposits of \$1 received. Interest paid twice a year. No delay in obtaining money when needed. Interest allowed from date of deposits. No trouble, red-tape or delay.

D. M. STEWART, General Manager.

SELECT FARMS IN LOWER FRASER VALLEY

British Columbia's richest farming district. I publish a real-estate bulletin, giving description and prices of some of the best farms in the Valley. Send for one (it will be of value to anyone interested in this country or looking for a chance to better their present conditions) to

T. R. PEARSON
NEW WESTMINSTER BRITISH COLUMBIA

Bicycles

direct from factory. Save agents', dealers' and travelers' expenses. Get you wheels at first cost. We have been established 15 years. Have a first-class line of bicycles, and you can have one or more

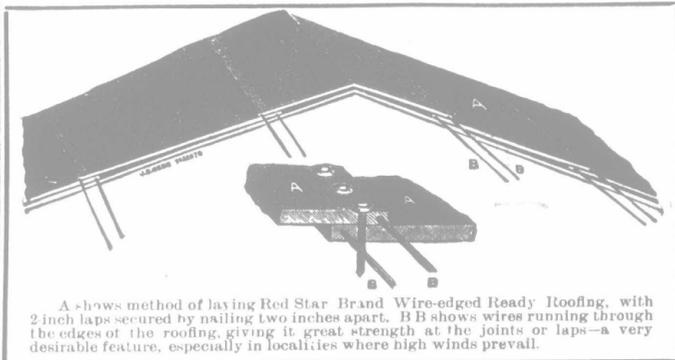
at factory cost.

Let us hear from you. We can save you money. Say what style of a wheel you want and we can fill your order.

Union Jack
Bicycle Works
TILLSONBURG, ONT.

Canadian Dairying,
BY PROFESSOR HENRY H. DEAN,
of the Ontario Agricultural College. A thoroughly practical book, illustrated; price, \$1.00, postpaid.
William Briggs, 29-33 Richmond St. West, Toronto.

PATERSON'S WIRE-EDGED READY ROOFING.



A shows method of laying Red Star Brand Wire-edged Ready Roofing, with 2 inch laps secured by nailing two inches apart. B B shows wires running through the edges of the roofing, giving it great strength at the joints or laps—a very desirable feature, especially in localities where high winds prevail.

We offer you a durable, fireproof roofing material for less money than you would pay for the poorest quality of shingles.

Wire-edged Ready Roofing is made in Canada by a responsible Canadian company, who stake their business reputation on the quality of the material they manufacture. For over 20 years our roofing has successfully stood the severe test of the variable climate of Canada, and our annual sales are now fully 100,000 rolls.

You can buy our Wire-edged Ready Roofing and other Goods from almost any hardware merchant in the Dominion.

Samples, testimonials and further information from

The Paterson Manfg. Co., Limited
TORONTO and MONTREAL.

Made for the Man Who Wants the Best.



THE GREAT WESTERN Manure Spreader

is the only Spreader with an ENDLESS APRON and made that has an ENDLESS APRON and many advantages which it possesses. It's always in place and ready to receive the load without any turning back either by hand or complicated, easily broken machinery. The front and rear axles are of same length which, with the Broad Tires Prevents Rutting

of fields, meadows, etc. and makes wet, dry, frozen, light, chaffy, packed-seed and spreads lime, plaster, wood ashes, cotton-seed and hulls, etc. Can be changed instantly to spread thick or thin while the machine is in motion—8 to 25 loads per acre. END GATE AND BEATER AND HOOD PROTECTOR IN USE. Made of best material in every way. Has the only successful POSITIVE GUARANTEE as to quality, capacity and durability. All parts breaking within one year and sold under a POSITIVE GUARANTEE will be replaced without charge. Write for free Illustrated and Descriptive Catalogue—the best and most complete spreader catalog ever published.

THE WILKINSON PLOUGH CO., LTD., M.F.F.S., TORONTO, CANADA.

2 IN 1 SHOE POLISH HAS NO EQUAL

TABLE OF CONTENTS.—The list of Contents in this issue of the "Farmer's Advocate" will be found on the page preceding the Home Magazine department.

Portland Cement

DRAIN PIPES & TILES

WHICH ARE ALWAYS NEEDED BY CANADIAN FARMERS WHO ARE UP-TO-DATE.

F. Hyde & Co.,
MONTREAL.

"Pure soap!" You've heard the words. In Sunlight Soap you have the fact.

SUNLIGHT SOAP REDUCES EXPENSE

Ask for the Octagon Brand.

Queenston Cement

The best and cheapest

FOR HOUSE, BARN AND SILO WALLS, STABLE FLOORS, ETC.

Send for our NEW ILLUSTRATED CATALOGUE—it tells all Prices and estimates cheerfully given. Write to

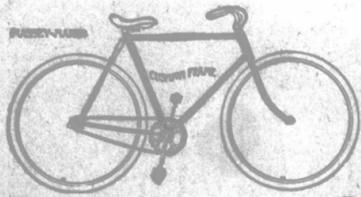
ISAAC USHER
Queenston, Ontario.

FAIR DIPLOMAS

Beautiful, artistic, illustrated lithographed diplomas, on plate paper, 25c. each. Space left for filling in local fair particulars. In lots of 20 or over, one order, wording printed in without extra charge. Sample copies sent on receipt of 25c.

LONDON PRINTING & LITHO. CO., LTD.
LONDON, ONTARIO.

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



Massey-Harris Bicycles

The cushion frame of the Massey-Harris is a good-road maker. It takes all the ruts out of the road. The jolting is absorbed in the air cushion of the frame.

The Morrow Coaster Brake saves pedaling and allows the rider to rest on idle pedals while the wheel glides along.

Imperial Bicycles

RIGID FRAME
COASTER BRAKE

Our pet bicycle is the cushion frame. Our rigid-frame bicycles are better than the best of their kind.

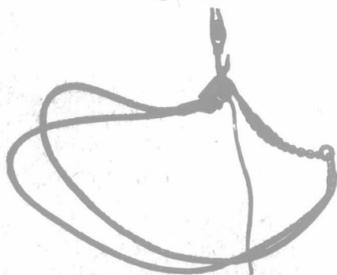
CANADA CYCLE & MOTOR CO.
Limited,
TORONTO JUNCTION.

BUCHANAN'S (Malleable Improved) PITCHING MACHINE

For unloading hay and all kinds of loose grain.



Unloads on either side of barn floor without changing car. No climbing necessary. Malleable Iron Cars. Steel Forks. Knot Passing Pulleys. Will work on stacks as well as in barns. Satisfaction guaranteed.



The Common-Sense Sheaf-Lifter

Works in connection with Pitching Machine, and is the most complete apparatus ever offered to the public for pitching sheaves. Sheaves left in the mow just as they come from the load.

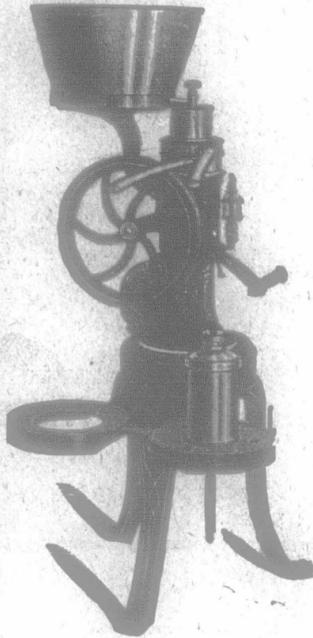
RESPONSIBLE AGENTS WANTED

Circulars, Prices and Terms on application to
M. T. BUCHANAN & CO., Ingersoll, Can.

ADVERTISE IN THE ADVOCATE.

The National

Stands First.



This is no vain boast. Others may claim this place, but the National Cream Separator soon proves its superiority when brought into competition with them.

The National is as represented. The closeness of its skimming has not to be sacrificed to keep up its advertised capacity.

It makes smooth cream, which is easy to churn.

It turns easily, is quickly cleaned, having so few parts, and these easily adjusted.

Its milk tank is conveniently low, and its gearing enclosed.

Send for terms to

The Creamery Supply Co.,
Guelph, Ont.,
The T. C. Rogers Co., Guelph,
Ont.,
Jos. A. Merrick, Winnipeg, Man.,
H. E. Nunn, Truro, N. S.,

or to the manufacturers,

CAPACITY:
Style B—250 lbs. per hour.
Style No. 1—330 to 350 lbs. per hour.
Style No. 1 A—450 to 500 lbs. per hour.

The Raymond Mfg. Co. of Guelph
GUELPH, ONTARIO. Limited.



Progressive Farmers Build Frost Fence

They simply can't afford to erect any other kind. It is the heaviest Wire Fence manufactured; every pound of material entering into its construction is of the very best. Consequently it will last three times as long as any other Wire Fence. It is neat in appearance. Strong and durable. Protects the stock. Is self-regulating and in every particular a PERFECT and UP-TO-DATE FENCE.

Booklet given on request.

FROST WIRE FENCE CO., LTD.,
WELLAND, ONT.

Cleveland, Ohio.

Winnipeg, Man.



Varicocele Hydrocele

Cured to Stay
Cured in 5 Days
No Quitting or Pain.

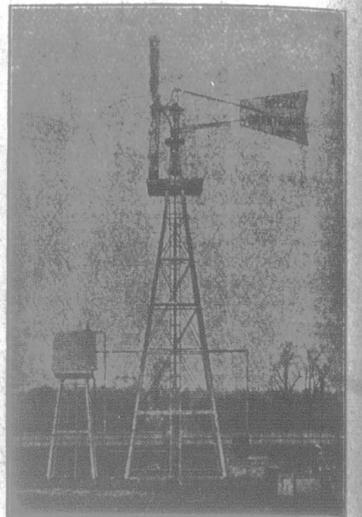
Guaranteed Cure
Money Refunded.

VARICOCELE Under my treatment this insidious disease rapidly disappears. Pain ceases almost instantly. The stagnant blood is driven from the dilated veins and all soreness vanishes and swelling subsides. Every indication of Varicocele vanishes and in its stead comes the pleasure of perfect health.

I cure to stay cured. Contagious Blood Poison, Kidney and Bladder Troubles, Nervous Debility, and allied troubles. My methods of treatment and cure are original with me and cannot be obtained elsewhere. I make no experiments. All cases I take I cure.

Certainty of Cure is what you want. I give a Legal Guarantee to cure you or refund your money. If what I have done for others I can do for you. My charge for a permanent cure will be reasonable and no more than you will be willing to pay for benefits conferred. I CAN CURE YOU at Home.

Correspondence Confidential Write me your condition fully and you will receive in plain envelope a scientific and honest opinion of your case. **FREE** of charge. My home treatment is successful. My books and lectures mailed **FREE** upon application.
• J. J. TILLOTSON, M. D., 255 Tillotson Building, 84 Dearborn Street, CHICAGO.



OUT OF
"IMPERIAL" PUMPING WINDMILL
Outfit which won the CHAMPIONSHIP OF THE WORLD against 21 American, British and Canadian manufacturers, after a two months' thorough trial. Made by G. GOULD, SHAPLEY & HUIR CO., Limited, Brantford, Canada.

Keep in the Front.



To do it you must have the best, and the BEST WINDMILLS are the

Woodstock Steel Mills

when fitted with GRAPHITE BEARINGS. They run without oil; no more CLIMBING TOWERS TO OIL BEARINGS.

Grinders, Pumps, Tanks and Saw Benches.

WOODSTOCK
WIND-MOTOR CO'Y,
LIMITED,
WOODSTOCK, ONT.

FOR SALE: AN IRON SUSPENSION BRIDGE

36 feet long; planked and in good order. Apply
C. S. HYMAN & CO., TANNERY,
LONDON, ONT.

BARREN COWS CURED
Write for Pamphlet
MOORE BROS. V. S.
ALBANY NEW YORK

WHY RUPTURED?

You can be Cured at Home, Without Pain, Danger and No Loss of Time from Work. No Case too Bad or too Long Standing

MR. JOHN MORRIS, Niagara St., St. Catharines, Ont., is cured of a dangerous rupture and lost no time from work. A Valuable Book, telling how all ruptures can be cured and a Free Trial Method sent sealed post-paid, free of all cost to all sufferers. Write at once; correspondence confidential. DR. W. S. RICE, 2 Queen St. East, Dept. (271), Toronto, Ont.

Earn a Bicycle
taking orders from sample wheel furnished by us. We want an Active Agent in each town. Large profits. Write for special offer.
Highest Grade \$8.75 to \$17
1904 Models
Coaster Brakes, Hedgehorn Puncture-proof Tires and best equipment.
1902 & 1903 Models \$7 to \$12
500 Second-Hand Wheels \$3 to \$8
All Makes & Models, good as new
Great Factory Clearing (sale at half factory cost).
We Ship on Approval without a cent deposit, and allow TEN DAYS FREE TRIAL on every bicycle. Any wheel not satisfactory returned at our expense. Write at once for catalog and our special offer. AUTOMOBILES, TIRES, Sewing Machines, Sundries, etc. **HEAD OTYOLE CO., Dept. 254 Chicago**

THE
WHITE
TRACTION
ENGINES

The George White & Sons Co.,

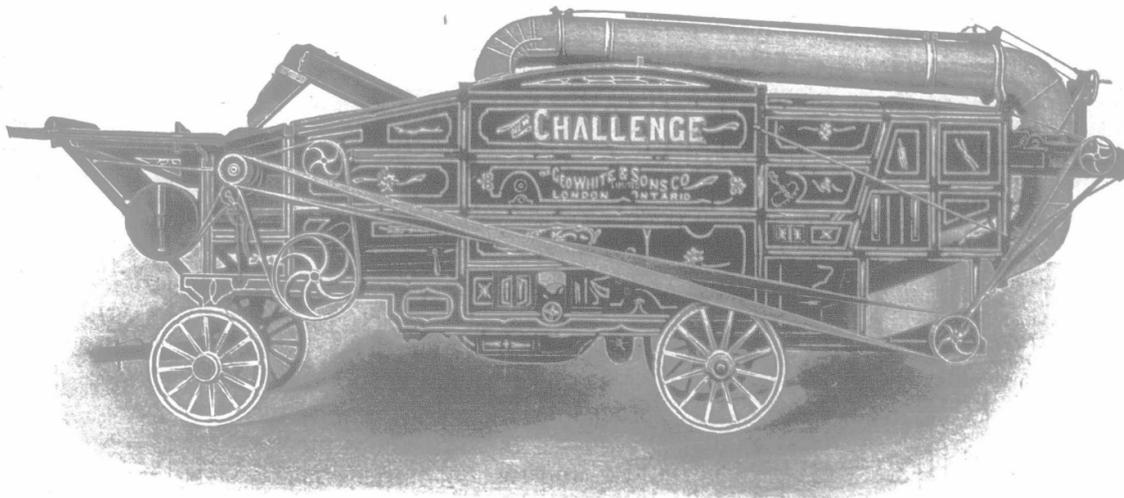
LONDON, ONTARIO, CANADA. Limited,

THE
WHITE
CHALLENGE
THRESHERS

Our 1904
CIRCULARS
have been
mailed to
every thresher

If yours has
not
arrived, write
for one

Full of good
things



The White 'Challenge'

CHAFF
BLOWERS

SELF
FEEDERS

WIND
STACKERS

WEIGHING
BAGGERS

THRESHERS'
SUPPLIES

ENGINEERS'
SUPPLIES

THE
WHITE
PLAIN
ENGINES

THE WHITE CHALLENGE

WITH STRAW-CUTTING ATTACHMENT & FARMER'S-FRIEND STACKER
PART OF OUR FIRST-QUALITY LINE

THE
WHITE
CORN
HUSKERS

LAST MOUNTAIN VALLEY

Have You Made Your Selection Yet? If Not, Why Not?

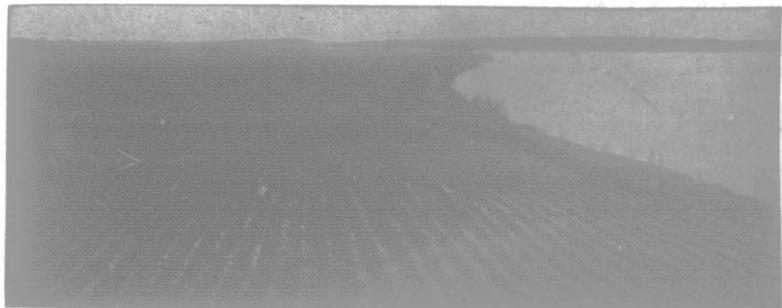
Price is now \$8.10 per acre. On June 1st the price will be \$9.10 per acre.



The railroad is now under construction into the heart of the district, and PRICES WILL STEADILY ADVANCE FROM NOW ON.

Settlers are pouring in rapidly, and the country filling up with the best class of farmers.

Seeding this spring has been remarkably successful, and is now about over.



WE SELL ON EASY TERMS.

A splendid district for speculative purposes, but better still for farming.

WRITE US AT ONCE FOR FULL PARTICULARS.

WM. PEARSON & CO., 383 Main St., WINNIPEG, MAN.

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

GOSSIP.

"Aren't you angry because your husband bets on the races?"
 "I don't know yet," answered young Mrs. Torkins. "I haven't heard whether he won to-day or not."

"My idea of a wise man," said the youth who thought he knew things, "is one who knows when to stop talking."
 "A man who possesses the genuine brand of wisdom," rejoined the venerable philosopher, "knows when not to begin."

A labor organizer was recently addressing a large open-air meeting, when tumbling over the heads of the crowd came a huge cabbage. After the laughter which this occasioned had subsided, the Irishman, like a true son of his country, turned the tables on the cabbage-thrower by shouting, "It's your ears, gentlemen, I want, not your heads."

King Edward, like others, occasionally takes great pleasure in telling a joke on himself. Here is one which the New York Times repeats:

Queen Victoria while in Scotland during the boyhood of Edward was fond of taking her ease to the coast or to the river and spending long hours over her water colors. The little Prince of Wales usually accompanied her. On one of these occasions he found time rather heavy and cast around for something with which to amuse himself. Near by he espied a bare-footed, kilted Highland boy of his own age building a sand castle. Edward went up to him and calmly kicked the castle over.

"Dinna do that again," said the boy. He rebuilt his castle of sand, and once again it collapsed before young Edward's royal foot.

"If ye dae that again—"
 There was silence as he built the castle for third time.

Out shot the royal foot once more. The next moment his Royal Highness, the future King of England, was rolling in the sand with the infuriated Scotch boy, whose fists were flying like a wind-mill.

Edward howled for help, but Queen Victoria, who was an interested witness, sat still and allowed the kilted lad to administer punishment to his heart's content. When the prince eventually reached his mother's side, nose bleeding and bedraggled, the Queen only remarked:
 "You deserved that."

Rev. Dr. Rainsford, in his new book, "A Preacher's Story of His Work," has some very interesting stories to tell of his experiences when he first took up his work on the East Side in New York. He says, in telling of one of his experiences:

"I remember one man in particular—a big, strong fellow. He came in and sat down in the Sunday school (by this time I had some of the very best teachers I could find working there, and I always put the best workers I had there), and began to talk in a way that a man should not talk to a lady. He was a little drunk. I saw the lady's face flush; I walked over and told him to get out. He would not move. I said:
 "We are here to help you people; we are paid nothing for it; now, you are enough of a man to respect a lady; why do you sit here and make it impossible for her to teach those boys?"
 "He swore at me and would not get out."
 "You don't want me to call a policeman, do you? Go out quietly."
 "He jumped to his feet, and I saw I was in for a row. He was as big a man as I am. I did not call a policeman, but I hit him harder than I ever hit a man in my life, and knocked him down. Then I stood over him and said:
 "Have you had enough?"
 "He said, 'Yes.'
 "All right," I answered; "now get out." And he went.

"About three weeks after that we got into a scrimmage outside the Sunday school room with some toughs, and, to my horror, I saw, elbowing his way through the crowd, this same burly fellow, and I began to feel that, between him and the others, I would be killed, when to my astonishment he walked up to the ring-leader and said:
 "The doctor and me can clean out this saloon; you get out."

DeLaval

When it comes to full advertised capacities in Cream Separators—well, there's where the cheap machines are deficient again. The DeLaval figure is not padded; it's all there—guaranteed.

Catalog Free Seven Styles

THE DeLAVAL SEPARATOR CO.
 WINNIPEG 77 York St., TORONTO MONTREAL

No Need to Sweep Hard.

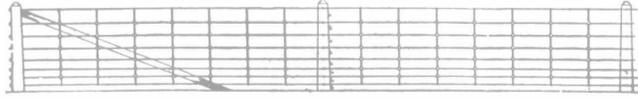
Too hard sweeping is, without a doubt, bad for some carpets, and it is hard on the sweeper. A too violent sweep is quite unnecessary with

Boeckh's Bamboo-Handled Brooms.



Easiest of all brooms to sweep with—hardest to wear out—they save time—save carpets. Your grocer sells BOECKH'S Brushes and Brooms. Ask for them and insist on having them for economy's sake.

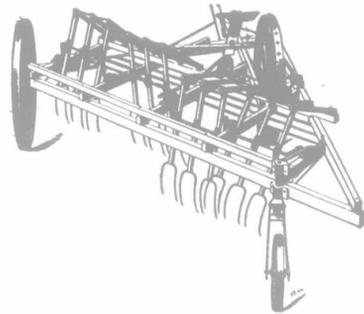
THE ANCHOR WIRE FENCE



For Farm and Ornamental Fence and Gates, and all Kinds of Fencing Wire, write

ESPLEN, FRAME & CO.,
 Agents Wanted. Send for Catalogue. STRATFORD, ONT.

ELMIRA HAY-MAKING MACHINERY.



THE SIDE-DELIVERY HAY RAKE and HAY LOADER are the Greatest Time and Labor-saving Implements of the day. They will repay for their cost in a short time by curing and saving the hay properly, and in saving of extra labor.



Substantially built. Will last a lifetime. Write for circulars, prices and terms.

THE ELMIRA AGRICULTURAL WORKS CO., LTD., ELMIRA, ONTARIO.

Farming for Profit

is what the lad is after. It is a decided loss to any boy to-day to attempt farming without a business education. The



Y. M. C. A.

makes a specialty of preparing young men in business methods.

J. W. WESTERVELT, Principal.

FARMING PAYS IN NEW ONTARIO.

Write for descriptive pamphlet and maps

ALGOMA, THUNDER BAY, RAINY RIVER, NIPISSING, TEMISKAMING,

HON. E. J. DAVIS,

Commissioner of Crown Lands, TORONTO

INCREASE THE PROFITS FROM YOUR FARM.

We can teach you BY MAIL at a very small cost, not only the essentials but the details of the latest improvements in General Agriculture, Dairying, Stock-raising, Fruit-growing, Market-gardening, etc., etc. Our instructors are well-known agricultural experts.

Greater knowledge means larger profits. Write for our free booklet, mentioning the subject which interests you.

Canadian Correspondence College, Limited
 TORONTO, CANADA.

WALTER JAMES BROWN, B. S. A., PRINCIPAL.



BOOK SALT for horses and cattle, in ton and car lots. Toronto Salt Works, Toronto.

A GOOD INVESTMENT.

Beautify and improve your property by using our FIREPROOF BARN AND ROOF PAINTS.

Sold at wholesale prices and guaranteed to wear. Write for prices.
 MONARCH PAINT CO.,
 Strange and Eastern Ave., Toronto, Ont.

EXCELSIOR LIFE INSURANCE COMPANY.

HEAD OFFICE, - TORONTO.
 ASSETS, ONE MILLION DOLLARS
 Insurance in force over - \$8,000,000
 A Company with an unparalleled low death rate, low expense rate, and earning over 6 per cent on assets, is a desirable Company to insure in and a good Company to represent. Agents wanted. Liberal contracts offered good producers.
 E. MARSHALL, Sec. D. FASKEN, Pres.

D 1866

it
ecided
farm-
L. The
FY
HAND
N.ONT.
young
Principal.

S
RIO.
let
BAY,
MING,
S,
ORONTO

OFITS
M.
at a very
als but the
ts in Gen-
ck-raising,
g, etc., etc.
n agricul-
ger profita-
entioning
e, Limited
PRINCIPAL.
ton and car
Toronto.
MENT.
roperty -
PAINTS.
uaran-
D.,
nto, Ont
LIFE
NY.
ONTO.
OLLARS
6,600,000
death rate,
per cent, on
re in and a
anted. Lib-
N. Pres.

Y.
RIO.

The Farmer's Advocate

and Home Magazine.

"PERSEVERE AND SUCCEED." ESTABLISHED 1866.

VOL. XXXIX.

LONDON, ONT., AND WINNIPEG, MAN., MAY 26, 1904.

No. 609

EDITORIAL.

Township vs. District Agricultural Society Grants.

We understand that some of the Township Agricultural Societies in the Province of Ontario are complaining bitterly of the arrangement under which, in the distribution of Provincial funds, district societies secure a larger grant than the township societies receive, although many of the latter claim to be conducting decidedly the best fairs, and doing the most good.

According to the Agriculture and Arts Act, district, township and horticultural societies organized or recognized thereunder are entitled to grants by complying with certain conditions as to membership, reports and returns to the Minister of Agriculture, holding annual meetings as prescribed, and expending funds in harmony with the objects of the society. The division of the legislative grant for each district shall be made as follows:

(a) An amount not exceeding \$420 shall be subject to division among the Township and Horticultural Societies of each district, to be divided in proportion to the number of paid-up members of the previous year, as shown by the treasurer's audited statement and the certified list of members sent to the Department; provided that on or before the first day of September of the year in which the grant is paid the treasurer shall make affidavit as to the number of members for the current year, as provided for in section 19 of the Act; but any one society shall not receive more than \$140, nor shall any one society receive more than three times the amount reported as paid up by its members, and not more than one hundred and forty members shall be counted for any one society in making the division of the grant. 59 V., c. 14, s. 6.

(b) In case a Township or Horticultural Society is situated within two districts, it shall receive from each of the grants made to these districts, but in the proportion of only one-half of the number of its members in each case.

(c) The remainder of the legislative grant for each district, after thus paying to the Township and Horticultural Societies (if there are any) the moneys to which they are entitled, shall be payable to the District Society.

(d) The district of the City of Toronto shall not receive more than \$550 in any year; and the districts of the City of Kingston, the City of Hamilton, the City of London, the City of Ottawa, the Town and Township of Cornwall, and the Town and Township of Niagara, shall not receive more than \$350, respectively, in any year.

(e) The districts of North Muskoka and South Muskoka shall not receive in any year more than \$600, of which not more than \$220 shall be subject to division among the Township and Horticultural Societies, and of which no single Township Society shall receive more than \$100. 58 V., c. 11, s. 21 (b-e). [Note.—This clause is repealed.]

For example, we note by the current year's Ontario public accounts, that the London District Agricultural Society received \$210, and the East Middlesex Agricultural Society \$380, making a total of \$590, which goes to the support of the Western Fair, held in London. The London Horticultural Society receives \$140, which is expended in the furtherance of its objects, by holding flower shows, etc. N. Dorchester, London and W. Nissouri Townships, in the constituency of E. Middlesex, get \$140 each. In some other ridings,

township societies receive as low as \$45, \$60, \$70 and \$80 grants.

The suggestion has been made that the Government grant be distributed to agricultural societies in proportion to the amount they actually expend for agricultural purposes, which would do away with the distinction between district and township societies. To determine this might require more than a cursory totalling up and comparing of the agricultural schedules of the prize-lists as printed. The Provincial Department of Agriculture has now a superintendent of agricultural societies (Mr. H. B. Cowan), and it occurs to us that some useful commission work might be done by that officer this year, by making a visitation of agricultural society shows, and a careful enquiry into the way in which funds are expended, prizes paid, etc. It is no easy matter to devise a plan that will give equally good results under different conditions, because, as in other enterprises, all depends on "the men behind the show." If they have the correct idea of the purpose and plan of conducting an exhibition of educational value to the community, the show will be correspondingly successful and beneficial, and vice versa. In the meantime, we will be pleased to have this important subject discussed through the "Farmer's Advocate" by those whose experience and knowledge will be helpful in illuminating the question, and reaching conclusions upon which future enactment may be based, that will make for improvement in one of the most useful means that was ever devised for agricultural advancement, viz., the agricultural fair.

Agricultural Progress Illustrated.

If we except those farmers of Manitoba and the Northwest Territories, with whom the production of hard wheat is the specialty par excellence, and for which the natural conditions have been peculiarly favorable, the agriculturists of Canada have placed their main reliance upon live-stock husbandry, or "mixed farming," as it is sometimes called. In our judgment the results, as we have observed them from the Maritime Provinces westward, have vindicated the wisdom of the system. Fundamentally, it is sound, and, therefore, safe. Upon this theory of successful farming the "Farmer's Advocate" has been conducted for nearly forty years, and we see good and sufficient reasons why the policy should still be continued. Fortunately, data is available whereby these results can be tangibly measured. The Province of Ontario furnishes a fine example of the results of an intelligent system of live-stock husbandry, and in the official records of the Provincial Government Bureau of Industries, we have a carefully compiled and reliable record of results. A fair period for consideration would be the years from 1897 to 1902, the returns for which we have before us. The increases in the capital of the Ontario farms, and of products sold, have been truly remarkable. There have been corresponding reductions in the amount of chattel mortgages against farmers, and of the number and amount of mortgages to loan companies, largely incurred for the purchase and improvement of farm property, which is very strong evidence of the financial progress of the farming community, especially when we consider the splendid improvements made at the same time in farm dwellings and barns, and in the general conditions of living on the farm. By means of animals and their products exported from the Province, money has been pouring back into the coffers of the agriculturist. Contrasting

the years 1900-1-2 with the former three-year period of 1897-8-9, we find an increase in the value of animal and agricultural products of domestic products exported of no less than \$55,497,000.

We give herewith a number of these statistics, which are anything but dry reading:

CAPITAL OF ONTARIO FARMERS.

Total value of land, buildings, implements and live stock on Ontario farms:

1897	\$ 905,000,000
1898	928,000,000
1899	948,000,000
1900	975,000,000
1901	1,001,000,000
1902	1,045,000,000

Total values at market prices of all field crops:

1897	\$107,000,000
1898	110,000,000
1899	106,000,000
1900	115,000,000
1901	128,000,000
1902	146,000,000

Value of live stock sold during the year:

1897	\$30,000,000
1898	34,000,000
1899	38,000,000
1900	42,000,000
1901	47,000,000
1902	53,000,000

Cheese produced in Ontario:

1897	\$11,719,000
1902	14,792,000

Swine sold or slaughtered in Ontario:

1897	\$10,080,000
1902	20,154,000

Included in total live stock in previous table.

Cattle sold:

1897	\$18,850,000
1902	28,840,000

Chattel mortgages against farmers:

	Number.	Amount.
1897	12,108	\$3,986,600
1902	7,285	2,637,925

Values of the live stock on farms:

1897	\$ 98,650,000
1902	140,545,000

Farmers' poultry:

	On Hand.	Sold.
1897	2,318,088	1,088,914
1902	2,957,286	1,898,289

Deposits in Government Savings Bank:

1897	\$48,984,976
1902	58,488,188

No figures published distinguishing farmers from others.

Mortgages to Loan Societies:

	Value of Real Estate Mortgages.	Amount of Loans Secured.	Overdue Mortgages.
1897	\$229,270,328	\$101,548,225	\$2,941,208
1901	189,613,577	118,291,151	1,585,817

No figures available distinguishing one class from another.

Values of animal and agricultural products exported. Domestic production:

1897	\$55,538,592
1898	75,834,858
1899	68,140,758
1900	81,856,450
1901	78,630,966
1902	94,517,019

1900-1-2 exceeded 1897-8-9 by the following amount: \$55,497,000.

Facts like the foregoing deserve very careful study, not simply because they are calculated to give us good heart, as to the condition and progress of agriculture, but for the still more valuable lesson they teach for the future, as to the direction in which the operations of the farm can, with the greatest degree of certainty, be made profitable.

THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

TWO DISTINCT PUBLICATIONS—EASTERN AND WESTERN.

EASTERN OFFICE:
CARLING STREET, LONDON, ONT.

WESTERN OFFICE:
IMPERIAL BANK BLOCK, CORNER BARNETT AVE. AND MAIN ST.,
WINNIPEG, MANITOBA.

BRANCH OFFICE: CALGARY, ALBERTA, N.-W. T.

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

JOHN WELD, MANAGER.

1. THE FARMER'S ADVOCATE is published every Thursday (24 issues per year).

It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical, reliable information for farmers, dairymen, gardeners, and stockmen, of any publication in Canada.

2. TERMS OF SUBSCRIPTION.—In Canada, United States, England, Ireland and Scotland, \$1.50 per year, in advance; \$2.00 when not paid in advance. All other countries, 12s.

3. ADVERTISING RATES.—Single insertion, 20 cents per line, agate. Contract rates furnished on application.

4. 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.

5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrears are paid and their paper ordered to be discontinued.

6. REMITTANCES should be made direct to this office, either by Money Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible.

7. THE DATE ON YOUR LABEL shows to what time your subscription is paid.

8. ANONYMOUS communications will receive no attention.

9. LETTERS intended for publication should be written on one side of the paper only.

10. CHANGE OF ADDRESS.—Subscribers when ordering a change of address should give the old as well as the new P. O. address.

11. 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.

12. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

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

Our Bacon Trade.

Ten years ago the export bacon trade of Canada totalled little more than a million dollars; last year it was over twelve millions. This means no inconsiderable revenue to the farmers of this country, coming from one branch of their business, and one that is largely produced from by-products of the dairy, such as skimmed milk and whey, which if not fed to pigs would in many cases be wasted, as in most dairy districts comparatively few calves are raised. We have captured this profitable trade by wisely conforming our pigs to the type and quality required by the British market. This has been effected by intelligent and judicious breeding, feeding and management. The market calls for pigs of good length, with smooth shoulders and fleshy backs, not unduly disposed to grow fat and produce lard in excess, but rather producing a large proportion of lean meat. For this purpose the large, lengthy English breeds have proved the most suitable, and enterprising Canadian breeders have not been slow to import and introduce into their herds the best available of these breeds, regardless of the expense, which is by no means small. The market price for hogs in the last few years has averaged high, making the raising of pigs one of the most profitable branches of farming, and although somewhat lower during the last few months, is yet fairly remunerative, with a good prospect of being higher in the near future, the visible supply being less than usual at this season, and the market quotations on the up-grade. The British market may be depended upon to take all the bacon we can raise, if we keep the quality up to the highest standard, which can only be done by the introduction of fresh blood into our herds and individuals of the best type. No farm stock degenerates more rapidly through close inbreeding and injudicious feeding and management than swine, and it is the part of wisdom to be constantly on the lookout for strong, vigorous seed stock of the most ap-

proved stamp to keep up the standard of constitution and quality; and no class of stock will repay the outlay for improvement so quickly as hogs, the sale of the first litter in many instances paying the whole purchase price of a sow, while the cost of a first-class male may be many times repaid in the increased value of his progeny over that of an ordinary animal. If farmers have any doubts as to the profitability of raising pigs in these times, when at six to eight months' old the porkers are readily salable at around five dollars per hundred pounds live weight, for pigs that are cheaply raised largely on grass or roots, and the by-products of the dairy, let them reflect on the time when hogs at eighteen months, fattened on high-priced grain, were often sold for little if any higher price per pound dressed weight, and be persuaded that there is little ground for complaint.

The combination of dairying with pork production is, without doubt, the safest and most profitable line of farming that can be followed by the average Canadian farmer, and those who are doing well in this line will do well to think more than twice about the matter before changing to any other.

HORSES.

A Shire Champion.

To the Editor "Farmer's Advocate":

Sir,—In your issue of 28th April, page 619, I find a short article by Mr. J. G. Truman, of Bushnell, Illinois, giving credit where it is due. Would that others would follow the example. I refer to the record-breaking price obtained for that roan gelding in the public auction ring at Union Stockyards, Chicago, viz., \$660, and purchased by the Armour Co. As all are aware, if he had not been a good one Messrs. Armour would not have paid that sum, or I might say, would not have bought him at all. I am pleased to say that the breeding of this particular horse has been certified by proper affidavits.

As you no doubt are aware, some over-zealous breeders of other kinds of horses are always ready to place their favorites first, thinking that their geese are swans, but that is not the way in which those parties would wish to have their pets treated. Then why do they not keep to the golden rule? However, it is quite easy to see through their actions, for it is well known that anyone who needs horses to do heavy work will always take a Shire in preference to the Clyde, if they are obtainable, and as in the case in question, will pay a heavier price for such, as they are very difficult to procure.

As to the value of the two breeds, we have only to look at page 661 of the "Advocate," May 5th. There we find an account of Mr. T. J. Berry, of Hensall, Ont., being offered \$3,500 for a Shire, and only \$1,800 for the Clyde—twice as much, within \$100, for the Shire. Now, let the public throw all bias aside, and see for themselves where the credit is due, and then give it to the breed which is most deserving.

We hear desires expressed on all sides, excepting the Shire side, for amalgamating the stud-books. This would be a great boon to the Clyde men, but would be most ruinous to Shire men and horses. If the Shires as workers and good constitutional horses could be improved by crossing or introducing foreign blood, will someone please tell us where we shall find such? But not so with the Clydes—they are drawing on the Shires year after year to try and keep up size and weight. To prove this, I quote from a draft horse paper of 23rd April, 1903, the following: "Shires going to Scotland is a new order of things. At the recent London Show, Mr. James Scott, Bruxie, New Maud, Aberdeen, purchased the gray Shire stallion, Clarendon, registered in Shire studbook. He is a dapple-gray in color, rising six years old, stands over 17 hands high, with clean legs and good feet. Mr. Scott expects that he will breed big gray colts that will make good geldings, for which there is always a demand for city street traffic. The produce of this gray Shire stallion may, and most probably will, learn to speak Gaelic to perfection, just as the produce of Prince of Wales (673) have done, for who amongst Clyde breeders will not trace back the pedigree of their pets to him, if it be possible so to do."

In conclusion, I will only ask fair treatment, and justice for the gentle and docile, yet ponderous and herculean Shire.
Wellington Co., Ont. OLD STALLIONMAN.

Over 1,700 farmers will be growing beets this season for the sugar factory at Berlin, Ont.

Diarrhoea in Foals.

While young animals of all species are subject to diarrhoea, it is probable none are so susceptible as foals. We have not reference to that form of diarrhoea that in some cases becomes epidemic in certain localities or premises, and is doubtless due to a specific virus, and from which calves principally suffer. We propose to discuss sporadic or accidental diarrhoea in foals. This is a serious and often fatal malady, and in some cases its appearance cannot readily be accounted for. The newly-born foal is very susceptible to the action of irritants of any kind to the intestines, and diarrhoea may be caused in many ways. In some cases it evidently is caused by some unfavorable condition of the dam's milk, and this is especially the case when the mare has been fed largely on food of a very laxative nature; in other cases it occurs without apparent cause, and we must infer in such cases that there is some injurious ingredient, not well understood, in the milk under certain conditions, that causes the disease. In other cases it is caused by the careless or ignorant administration of drastic purgatives to the nursing mare. Aloes especially appears to have an affinity for the lacteal apparatus; at least, it is largely excreted by these glands, as is demonstrated by the evident odor of aloes that can be detected in the milk a few hours after the administration of a dose. In such cases the drug has not been deprived of its purgative properties, and a foal partaking of milk thus contaminated is very liable to suffer from diarrhoea. This teaches us that we should not administer aloes to a nursing mare, unless absolutely necessary, and in most cases where purgation is demanded in the mare, it can be produced by the administration of raw linseed oil, which has not the same injurious action upon the lacteal secretions. Another common cause of diarrhoea in the young animal is exposure to damp and cold weather, or confinement in damp, foul and ill-ventilated premises. One of the most frequent causes probably is allowing the foal to partake freely of milk from the mare when she is in a heated condition, especially when the mare has been at work and the colt confined in the stable, and hence is hungry after its long fast. In such cases some of the milk should be extracted from the glands by hand, and the mare allowed to stand a few minutes and become somewhat cool before the foal is allowed to suck. Another, and not uncommon cause of the trouble, is the dangerous and uncalled for habit many people have of administering a purgative or laxative to the foal shortly after birth. This, even though the dose be slight, often causes serious and sometimes fatal diarrhoea. Under ordinary circumstances nature should be allowed to have its course in these cases, and we find that the first milk of the mare, "the colostrum," has a sufficient laxative action. In rare cases, when the mare has lost considerable milk for a few days before foaling, and the colostrum has escaped, it may be necessary to give the foal a slight laxative, as about an ounce of castor oil, but in most cases it is well to withhold medicines until symptoms indicate their use, and this is seldom seen, especially when the removal of the meconium has been attended to as advised in a former article. In colts that from any cause are reared by hand, we find that the partaking of cows' milk in its purity usually causes serious digestive trouble, which may be diarrhoea, or the reverse condition, constipation. In such cases, about equal parts of pure water and cows' milk, to which has been added a little brown sugar, gives good results at first, and when the foal becomes older and stronger and accustomed to the food, he can take the pure cow's milk.

SYMPTOMS.—The symptoms of diarrhoea, of course, are evident and unmistakable. The little animal passes liquid or semi-liquid faeces frequently. At first there is usually little distress noticed, but in a very short time more or less violent straining will be noticed, indicating that the mucous membrane of the intestines has become irritated and inflamed; he becomes dull, lies a good deal, refuses to partake of his usual amount of nourishment, or possibly refuses to suck at all; he loses strength quickly, will not or cannot stand for any length of time, pants, looks towards his flank, strains violently, or, in the later stages, the liquid faeces escape without apparent effort on the part of the colt; his mouth becomes cool, the circulation very frequent and weak, and death soon occurs.

TREATMENT.—When we understand the causes of the disease, we should, of course, endeavor to avoid them, as it goes without saying, as in all diseases, "prevention is better than cure." If the disease occurs in a very young animal, from a few hours to a few days old, we are forced to acknowledge that it is very serious. If it occurs in a strong foal a few weeks old, it is not nearly so serious, but in all cases requires prompt and energetic treatment. The principal of treatment is to make the patient as comfortable as possible, allay pain, check the excessive secretions of the mucous and digestive glands of the intestines, and keep up strength. If in a quite young animal, opium gives the best results, as it eases pain and

checks the form of diarrhoea, it is probable none are so susceptible as foals. We have not reference to that form of diarrhoea that in some cases becomes epidemic in certain localities or premises, and is doubtless due to a specific virus, and from which calves principally suffer. We propose to discuss sporadic or accidental diarrhoea in foals. This is a serious and often fatal malady, and in some cases its appearance cannot readily be accounted for. The newly-born foal is very susceptible to the action of irritants of any kind to the intestines, and diarrhoea may be caused in many ways. In some cases it evidently is caused by some unfavorable condition of the dam's milk, and this is especially the case when the mare has been fed largely on food of a very laxative nature; in other cases it occurs without apparent cause, and we must infer in such cases that there is some injurious ingredient, not well understood, in the milk under certain conditions, that causes the disease. In other cases it is caused by the careless or ignorant administration of drastic purgatives to the nursing mare. Aloes especially appears to have an affinity for the lacteal apparatus; at least, it is largely excreted by these glands, as is demonstrated by the evident odor of aloes that can be detected in the milk a few hours after the administration of a dose. In such cases the drug has not been deprived of its purgative properties, and a foal partaking of milk thus contaminated is very liable to suffer from diarrhoea. This teaches us that we should not administer aloes to a nursing mare, unless absolutely necessary, and in most cases where purgation is demanded in the mare, it can be produced by the administration of raw linseed oil, which has not the same injurious action upon the lacteal secretions. Another common cause of diarrhoea in the young animal is exposure to damp and cold weather, or confinement in damp, foul and ill-ventilated premises. One of the most frequent causes probably is allowing the foal to partake freely of milk from the mare when she is in a heated condition, especially when the mare has been at work and the colt confined in the stable, and hence is hungry after its long fast. In such cases some of the milk should be extracted from the glands by hand, and the mare allowed to stand a few minutes and become somewhat cool before the foal is allowed to suck. Another, and not uncommon cause of the trouble, is the dangerous and uncalled for habit many people have of administering a purgative or laxative to the foal shortly after birth. This, even though the dose be slight, often causes serious and sometimes fatal diarrhoea. Under ordinary circumstances nature should be allowed to have its course in these cases, and we find that the first milk of the mare, "the colostrum," has a sufficient laxative action. In rare cases, when the mare has lost considerable milk for a few days before foaling, and the colostrum has escaped, it may be necessary to give the foal a slight laxative, as about an ounce of castor oil, but in most cases it is well to withhold medicines until symptoms indicate their use, and this is seldom seen, especially when the removal of the meconium has been attended to as advised in a former article. In colts that from any cause are reared by hand, we find that the partaking of cows' milk in its purity usually causes serious digestive trouble, which may be diarrhoea, or the reverse condition, constipation. In such cases, about equal parts of pure water and cows' milk, to which has been added a little brown sugar, gives good results at first, and when the foal becomes older and stronger and accustomed to the food, he can take the pure cow's milk.

The disease is not analogous to the medicine, is of the thymus immediately.

It has been reported in lambs. In serious, as in Goitre is not however, but lambs are usually small percentage long as the

Symptoms neck are ententionally. tely after owing to th. The most p. jority, four thyroid gland mal size of and each we this disease or five ounce length. In t was two m eleven and a ured over s breathing is companied b tongue protr excitement b tongue and

Post-mort made were, t firmly; the of neck and certain amount absence of i healthy appe the thyroid much enlarg with a strav though healt and engorged

Cause.—T the affected microscopical the present ewe's milk g planation, w the rams use is, however, many of the months-old e during the r mothers then starved and their lives.

Treatment to be separat dock close to skin over sw thoroughly by lowing lime phor, each o parts.

It is nec

checks secretions. It should be given in the form of laudanum, in from 2 to 4 drams, in a little of the mother's milk, every three or four hours until the diarrhoea ceases. Care must be taken to not continue the doses after cessation of diarrhoea, else we will produce constipation. In the meantime, we must endeavor to get the foal to suck, and if he refuse to do so, small quantities of the mother's milk should be given every hour or two out of a bottle, and if he be quite weak, stimulants, as about $\frac{1}{2}$ oz. of good whiskey or brandy, should be mixed with the drench to keep up the heart's action. If the patient be a couple of weeks old, or older, the amount of laudanum must be correspondingly larger, and to it should be added about 2 drs. each of powdered catechu and prepared chalk, and if necessary the stimulants and nourishment in proportion to age and size given as drenches. In the majority of cases where treatment is resorted to in the early stages, two or three doses of laudanum, with or without the addition of the astringents mentioned, according to age and size, will check the disease, without the use of stimulants or forced nourishments, but if the disease has been in operation for a few hours or longer before treatment is resorted to, it usually requires very careful treatment and attention to effect a recovery. If the weather be cold, the patient must be protected from draft or chill, and if very warm weather, he must be placed in a cool place.

"WHIP."

STOCK.

Goitre in Lambs.

By J. D. Stewart, V. S.

The disease known as "goitre in sheep," although not analogous to that of the same name in human medicine, is nevertheless characterized by enlargement of the thyroid glands (or bodies) situated in the neck immediately behind the throat.

It has been fairly extensive in certain districts, and appears to be confined to late or summer lambs. In some instances the losses caused have been serious, as many as eighty per cent. of the lambs dying. Goitre is neither infectious nor contagious. It may, however, be regarded as congenital, as many of the lambs are born with enlarged glands. Its duration is usually from birth to five to seven days, although a small percentage of the affected lambs have lingered as long as two months.

Symptoms.—Even at birth the thyroid glands of the neck are enlarged, and the lambs appear weak constitutionally. Some die, giving a few gasps, immediately after they are born; others in a day or two, owing to their inability to suck their mother's milk. The most pronounced symptoms observed in the majority, four days or more after birth, are the enlarged thyroid glands and difficulty in breathing. The normal size of these glands is about that of a horse bean, and each weighs less than a quarter of an ounce. In this disease it is common to find them weighing four or five ounces, and measuring three to four inches in length. In the case of a lamb that survived until it was two months old, the glands weighed eight and eleven and a half ounces respectively, while each measured over six inches in length. The difficulty in breathing is often very marked, each breath being accompanied by a grunt, the mouth kept open, and the tongue protruded, while the flanks heave. Exertion or excitement brings on an attack of breathlessness, the tongue and inside of the lips becoming livid in color.

Post-mortem Examination.—The chief observations made were, the blood, though dark in color, coagulated firmly; the absence of dropsical effusions in tissues of neck and cavities, excepting in old cases, when a certain amount of dropsy in cavities was present; the absence of internal parasites (fluke worms, etc.); the healthy appearance of all organs, with the exception of the thyroid glands and the lungs, the glands being much enlarged, and on incision, found to be distended with a straw-colored watery effusion, while the lungs, though healthy at birth, in a few days become dark and engorged with blood.

Cause.—The mother's milk, blood and fluid from the affected organs of sick lambs were examined microscopically with negative results. Inquiry as to the present supply of food, and the condition of the ewe's milk glands, did not furnish any satisfactory explanation, while in no instance could the influence of the rams used be regarded as a determining factor. It is, however, of more than ordinary significance that many of the affected lambs were the offspring of 20-months-old ewes that had undergone great hardships during the recent drought, and in many instances the mothers themselves are progeny of ewes that were half starved and had travelled for the greater portion of their lives.

Treatment.—The affected lambs, with their mothers, to be separate from the flock, and kept in a small paddock close to the yards. The wool to be clipped off skin over swellings in throat, and the part painted thoroughly by means of a toothbrush, with the following liniment: Tincture of iodine, spirits of camphor, each one part; spirits venii methylated, two parts.

It is necessary to apply the liniment every fourth

day, until recovery takes place. This usually occurs in about ten days. In order to avoid a recurrence of the disease at next lambing, it is advisable to feed the ewes liberally, and allow tonic licks until a month before they are due to lamb, in order to build up their constitutions. Ewes should not be put to the rams too young; while a late or summer lambing should not be attempted with ewes whose lambs have been affected with the disease during the past season.

Letters from Prof. Kennedy.

Our readers will be pleased to learn that Prof. W. J. Kennedy, head of the Department of Animal Husbandry, in the Iowa Agricultural College, and Vice-Director of the State Experiment Station, will, during his tour in Great Britain and on the Continent of Europe, for which he has been granted a year's leave of absence, contribute a series of



Prof. W. J. Kennedy.

Who Will Contribute a Series of Articles to the "Farmer's Advocate" During His British and European Tour.

articles to the "Farmer's Advocate and Home Magazine," giving his impressions of leading exhibitions, agricultural education, and other topics of special interest to Canadians at the present time. A progressive son of Canada, Prof. Kennedy's advancement under the flag of "Uncle Sam," in his chosen avocation, has been followed with interest on this side of "the line." As already announced in these columns, Prof. Kennedy goes abroad commissioned by the United States Department of Agriculture to investigate and report upon European live-stock conditions.



Wildwood Brino, by Wildbrino.

Three-year-old Standard-bred trotter. Winner of second prize three years in succession at Toronto Exhibition. Owned by T. H. Cole, Owen Sound, Ont.

The Sow and Her Litter.

The mother pig is so important a factor in successful hog-raising that the greatest care should be exercised in her selection. Select the sows when from three to four months old, from large, even litters of prolific family. A tendency to large litters is indicated by length and depth of side. She should be vigorous and well grown; have 12 or 14 well-developed regular teats, commencing well forward; side, long and deep; front legs wide apart, and breast full; back, nicely arched; legs, short and straight; head, small and somewhat dishd; a good feeder, and of quiet, contented disposition.

Feed her the very best growing and developing food available. Clover pasture, a little corn, chopped oats and shorts, is a good ration. Chopped oats for pigs should always have the hulls sifted out. Give plenty of exercise. Have her in healthy condition, well developed, but not too fat, and when eight months old breed her. It is not wise to breed much younger. One service is sufficient; more than that is useless and injurious. Place her by herself for a couple of days. See that she has no lice. If she has, spray with a sheep-dip, and rub a little grease on her ears and flanks. While pregnant, keep the bowels regular. Give lots of exercise, and feed a variety of blood, bone and muscle forming foods, such as oat chop, bran, shorts and barley. In winter supply steamed cut clover and a few roots. Discontinue the roots a short time before farrowing, as they have a tendency to make weak pigs, and slightly reduce her ration. Keep the bowels regular.

It is a good plan to have the sow acquainted with you, as you will need to be with her when the little fellows come, and she should trust you. Handle her and be kind, pet her a little, and talk to her.

Keep the sow by herself for about three weeks before her time is up, but don't confine her. Cover the floor of the breeding pen with a little cut wheat straw or short litter, and allow free access to water while she is making her nest. Watch closely if weather is cold, and as the little fellows come, dry them and place in a basket of cut straw until all are come; then place them on the mother for a drink. If any are weak, do this a couple of times, and there will be no further trouble with them. If she has been properly fed, there will be no fear of the sow eating her young.

Beware of milk fever! After farrowing give her nothing to eat for five or six hours, then give her a pail of lukewarm water, with a couple of quarts of bran in it. Feed only thin bran slop for a couple of days. If the young pigs are a little hungry it won't hurt them. By degrees add skim milk, shorts, chopped oats and barley meal until full ration is reached, then feed generously. She gives as much milk as a good cow, and it contains double the amount of solids. If scours appear in the young, it is due to over-supply of milk, and the mother's feed should be decreased. Give her a tablespoonful of copperas dissolved in her slop. If the teats become sore, pinch off the

little fellows' teeth—they are useless. Do not disturb her bed for a couple of days, but afterwards renew frequently. There should be a scantling around the walls of the pen eight inches from wall and floor to protect the little pigs. Give the run of yard as soon as they are strong; then the pasture, if in summer. Castrate the male pigs when about three weeks old.

When about that age, place a shallow trough apart from the sow, but where the young may go, and leave a little sweet milk in it. They will soon learn to eat. Increase the quantity, and add gruel and shorts as they grow; it will lessen the drain on the mother, and weaning will hardly be felt.

Wean at seven or eight weeks' old. For two days previous limit the sow's food. Remove her out of hearing, and return her at night. After the pigs have sucked, remove her, and return her again the following noon. Do it again two days later for the last time. If in the winter time, feed the young pigs often on skim milk, bran, shorts, and chopped oats, with perhaps a little linseed meal as a laxative. In summer turn them into a clover pasture, and feed a little less of the grain. Up to four months of age keep them growing as fast as possible, and then gradually change to a fattening diet of corn, peas, barley or rye. About three weeks before selling, pen in lots of six or eight, and feed all the corn they will clean up. Don't feed after 225 pounds weight is reached, and endeavor to force them to that weight inside of five months. In fact, force them all the time—first in growth, then in weight—and you are on the right track in hog-raising for profit.

J.
Lincoln Co., Ont.

Care of Calves.

Spring calves, whether allowed to be nursed by their dams or raised by feeding from the pail, will do better the first summer if kept in roomy box stalls or sheds, and fed good hay or green grass, or other soiling crops, cut and carried to them, together with a fairly liberal allowance of chopped oats or other meal and bran. The hot sun of summer days, and the plague of flies, is very hard on the youngsters, if they are exposed without the shade of trees or a shed. If they are to be kept on pasture they should not be put out until the nights become warm and danger from frosts and cold rains is past, and in any case they should have a shed for protection from cold winds and rain, or from the hot sun and flies.

A good plan is to keep them in during the day in hot weather and fly time, and let them run out on pasture at night. Care should be observed at all times to feed them their milk sweet and warm. If a cream separator is not used, and the milk fed before it becomes cold, it should be warmed upon the stove, or by the addition of hot water. Cold milk and unclean drinking vessels are liable to cause indigestion and scours, and are often responsible for a stunted condition of the calf, which discounts its usefulness for life by impairing its constitution. In periods of drouth, when pastures fail, the calves should be given some supplementary food, either in the form of green crops carried to them, or a mixture of meal and bran, or cake, to keep them in thriving condition.

FARM.

Building the Farmhouse.

Rural architecture is improving. Every year there is an effort to improve the appearance of the houses and barns being built. Convenience and comfort inside, while important, are not sufficient, the outside must be attractive, and the location must not only suit the needs of the occupants, but must lend itself to the improvement of the landscape.

The disadvantages and defects of location of many of the farmhouses already erected are cramped surroundings, lack of architectural style, and squatness.

The first consideration in building a house is to select a site that will permit of a good-sized grass plot between the house and the barn; a wide front lawn, to be dotted with trees, shrubbery and flowers—not the restricted lawn of the city residence—and a plantation of forest trees on the exposed sides. There is no necessity for placing the house as close to the barn as the insurance companies will allow, nor so near the road that passers-by can look in the windows. One of the chief advantages of living in the country is that there is facility for breadth and scope about the buildings.

The exact shape and style of the house may be decided by the builder. Architects are plentiful, and plans can be had on every hand, so there is little apology for the plain L-shaped house so commonly built a few years ago. Such houses, although convenient inside, are not compact enough to be economically heated by a furnace, and are very plain. Many excellent plans appear from time to time in the pages of the "Farmer's Advocate."

With modern appliances, by way of heating and plumbing, it is necessary to have a roomy cellar in the house. On rolling land this adjunct is seldom omitted, and on flat-lying districts the introduction of concrete makes it possible to build one perfectly waterproof. In order to have the best basement, the floor should not be more than three or four feet below the surface, the walls above being built frostproof and substantial. Some good cellars are built with the floor practically on the level with the ground outside, the house afterwards being terraced up two or three feet. Higher ceilings should also become more

general in the modern house, ten feet on the ground floor and nine upstairs being about the proper height. In the attic should be arranged a tank for water, then with the windmill and the modern furnace and water-heater, a system of hot and cold water pipes can easily be installed. The latter suggestion is one that cannot be too strongly recommended as a means of saving labor in the house, and a convenience for ablutionary purposes.

Problems of the Soil.—VII.: Summer-fallowing.

The practice of summer-fallowing has undoubtedly many merits. Chief of these is the undoubted fact that it is one of the best ways of cleaning the land of weeds, and it was this fact that led to its general adoption throughout this province. Many of the best farmers of the old grain-growing days were the most persistent and thorough summer-fallowers, and it was quite common to judge of a farmer's thoroughness by the amount of land he kept fallow, and the way he handled it. Even yet, in some parts of the Province, the system is extensively practiced, but in many parts it is being discredited, so that it is now a subject of agricultural debate. We shall endeavor, in this article, to give an intelligent explanation of the effects of summer-fallowing, and then draw some conclusions as to the usefulness of the practice.

In a well-conducted bare fallow, the land is kept in a state of constant cultivation from the early part of the summer till it is time to sow wheat, or later, if, as it is often the case, the crop is to be oats or barley.

The Opinion of a Canadian Senator.

I am glad to know that the *Farmer's Advocate* and *Home Magazine* is doing well and increasing in circulation. From what I know of it, I can honestly say that there is no periodical that serves a better place in the farmer's home than the *Farmer's Advocate*, and it is a matter of amazement to me that a paper containing lots of news and information valuable to any farmer that will read it should not be patronized by every farmer in Canada. I know nothing that would contribute more to the general prosperity and advancement in the art of agriculture than a weekly perusal of the columns of the *Advocate*. It is, in my humble opinion, a credit to the Editors and the company that issues it. I am,

Yours faithfully,

JAMES McMULLEN,
Senator.

May 13, 1904. Mount Forest, Ont.

sown the next spring. Weed seeds are sprouted and killed, and plants that propagate by means of running roots, as do the Canada thistle and couch grass, are drawn to the surface and killed by drying, so that the land is kept clean. So much, no one will deny. Further, the advocates of the system claim that the land, by "resting," increases in fertility, and is thus greatly improved; that stiff clays are opened up and made friable, and the texture of all soils is improved.

These claims, while having some elements of truth in them, are not undisputed, and are worth investigating. Beyond this, even the advocates of summer-fallowing must admit that it is a costly and wasteful system, involving a large amount of work, and losing a season's crop.

Let us examine, first, the effect on plant-food in the soil. As we saw, in our last article, cultivation can have no effect in adding to the plant-food in the soil. What it does is to make available what is there already. Where cultivation is carried on in hot weather, the effect is most marked in the case of the element, nitrogen, which is in the soil, chiefly in the form of humus. This, which is insoluble in water, and slowly available to plants, is changed into the form of nitrates, soluble, and very easily available. So far,

so good. The summer-fallow has done no harm; has only increased the available plant-food, and the next crop will be in a position to benefit. And for this reason we do generally find a luxuriant crop after a fallow. The effect, however, is not lasting. A great deal of the most available plant-food has been made soluble and used up; the best humus has been oxidized or slowly burnt by exposure to the air, and the succeeding crops are left to get their food from less easily available sources in a soil containing less humus. Hence the fallow acts as a sort of stimulant to plant-food, giving an immediate increase in the amounts available, to be followed by a corresponding shortage. But this is not all. All the plant-food which is made available and soluble does not remain in the surface soil for the use of the succeeding crop. There is, in a bare fallow, a constant movement of soil-water from the surface to the lower layers, because evaporation is largely prevented by cultivation; there are no plants to draw the water to the surface and use it, and the rains of summer, prevented from escaping again into the air, must leave the surface soil by drainage, either into artificial drains or into the subsoil. Thus, water carries with it much soluble fertility, and leaves the surface soil poorer. This loss may be very great, as some very interesting experiments carried on at the great English experiment station at Rothamstead show. There a piece of fallow land was drained, and the drainage water accurately measured and analyzed to determine the amount of nitrogen which was lost in this way. It was found, in an average of several years, that this soil to a depth of twenty inches lost in this way 37.3 lbs. of nitrogen per acre per year; an amount equal to that contained in three tons of horse manure. It is probable that in Ontario, with our hotter summers, the loss is even greater.

The effect of fallowing on fertility, then, is this: A large amount of nitrogen is made soluble, and a good deal is lost through drainage, or into the subsoil, though enough may remain to show an increase in the first crop after the fallow. The best humus is used up in this way, and the land is left poorer in a valuable constituent. For this reason, even the good effect of mellowing the soil is not lasting, since humus has a very important function in keeping the soil open and mellow, and when it is removed or used up, there is nothing to prevent a clay soil from running together and baking as soon as it meets unfavorable conditions of moisture. I believe experience bears this out, for, so far as my observation goes, clay land that has been most persistently summer-fallowed is the most lacking in humus, the most liable to bake and become hard, and the most liable to suffer from drouth.

I do not believe, in spite of some advantages, that the summer-fallow has a place in Ontario agriculture at the present time, whatever may have been the case on the rich new land of the earlier days. There are two serious losses in summer-fallow—the loss of fertility, in the way we have seen, and the loss of a year's crop, to be offset by one gain, the cleaning of the land. We may, however, clean the land as effectively, and almost as cheaply, by a hoed crop, such as roots or corn, and at the same time produce a very valuable crop, and prevent losses of fertility. This is, by all odds, the best way to clean land, but if we must fallow, let us at least grow some cover-crop, such as buckwheat, or, better, peas or clover, which will prevent losses of fertility, and increase, rather than decrease the humus of the soil. D.

Potato Culture.

I have read Mr. Stavert's article on potato culture, and I laugh when I think of the idea of plowing out potatoes, and one man scratching out fifty bushels per day. I dig by hand, with a potato fork, and one man can easily dig an acre a day, but it takes two smart boys to pick it. Different from Mr. Stavert, I prefer to plow shallow in the fall. By shallow fall plowing, most of the weeds are sprouted before spring plowing, and are no more bother during summer months. In the spring, manure heavily and plow. After a good harrowing, I mark both ways, in squares 32 in. apart, planting in the last mark opposite to the first, and covering with the plow. A doubletree five and a half feet long, with a thirty-one inch draft, should be used, so that the horse on the land walks between the drills, and does not displace the seed potatoes. I always plant the way the ground was marked first. After a week or ten days level drills down with an up-turned harrow, or a fairly heavy pole. In wet weather the seed should be planted immediately after being cut, but in dry weather, dry seed tubers by letting them stand a day or two before planting. Small seed planted whole do well, when planted once in three or four years.

When plants can be traced in the drill, scuffle crosswise, and in a few days scuffle opposite way. The potatoes should now be thoroughly hoed, and then hilled up with a moulder. I prefer planting about June 1st, as then I have less trouble with bugs, and potatoes do just as well as planting earlier.

I have used Paris green for years, and never knew of it rotting the tubers. By following this method I have grown over four hundred bushels to the acre, and grow from five to fifteen acres a year.

Wellington Co., Ont.

READER.

Po
In pl
and keep
both in
shoul
using a
only can
be much
is any t
and twice
possible,
find that
between
ing grou
along the
eight incl
Now, if
matter if
take the
up, not t
weeds an
leave the
and will
will readi
of loose e
of the co
going un
inches hi
or hoe th
along the
properly c
a hand ho
will have
the hills,

I am
spray?"
eight in
single tir
with ano
three spr
apart at
most rapi
each of t
are plenty
more appl
the Border
only a few
Do not
mixture a
omy, and
way only
sides and
important
utes exte
repaid in
sure that
No far
can afford
horse spr
against ge
poor spray
ever owned
thoroughly
low-pressur
understand
try to illu
and dip it
during its
struck by
have coat
Now, we c
a sprayer,
and we ca
machine;
say sixty
our spray
among the
stalks, and
leaves. A
go farther
machine.
if you have
work to k
the power
not buy an
tator, as
be sure th
so, whether
that it pla
ner can the
work insur
Bordeau
mineral sub
and commo
I will g
potatoes, t
tender folia
strong barr
being the b
exposed to
fifty pounds
copper suppl
other barrel
fifty pounds
a stout pad
begins to b
as it slacks
to cook the
properly sla
lime which
not desired

Potato Cultivation and Spraying.

In planting potatoes get the rows started straight, and keep them so, as much better work can be done, both in cultivating and spraying. The cultivator should be started as soon as the planting is finished, using a riding spring-tooth double cultivator, as not only can the work be done twice as fast, but it can be much better done in all ways, especially if there is any twitch grass. Cultivate at least once a week, and twice if there is time, running as near the rows as possible, and if this work is properly done, you will find that there will not be a weed or any couch grass between the rows by the time the potatoes are breaking ground, but all clean, loose dirt, the weeds being along the top of the row on a strip not over six or eight inches wide.

Now, when the potatoes are breaking ground, no matter if some of them are two or three inches high, take the horse hoe or shovel plow and bury them right up, not too deep, but deep enough to cover any little weeds and a good part of the twitch grass. This will leave the field just as free from weeds as when planted, and will hardly check the potatoes. A potato or thistle will readily force its way up again through a few inches of loose earth, but all small weeds and a good portion of the couch grass will be killed. Keep the cultivator going until the potatoes are from fifteen to eighteen inches high. When from six to eight inches high, spade or hoe them up, throwing the dirt so that it will meet along the top of the rows. If this work has been properly done, there will not need to be any work with a hand hoe, unless there are thistles in the field, which will have to be cut out by that method from between the hills, but little expensive hand hoeing is necessary.

SPRAYING.

I am often asked, "At what time do you begin to spray?" Usually when the vines are from six to eight inches high, but always as soon as I can find a single tiny slug hatched out, and I believe, one year with another, that this is soon enough. The first three sprayings should not be over a week or ten days apart at the most, as this is the period of the vines' most rapid growth, and insecticides should be used at each of these first three applications, especially if bugs are plenty. These should be followed by one or two more applications at periods of two weeks apart, of the Bordeaux mixture; but if there are any slugs, if only a few, an insecticide should be used.

Do not try to save money by not using Bordeaux mixture at all sprayings, as it will be mistaken economy, and go over and back on the same rows. In this way only can you be sure that you have reached both sides and all parts of the hills. This is especially important at the first three sprayings. The few minutes extra it will take per acre, will be many times repaid in the yield of tubers, and in this way we are sure that we shall not lose our crop by rot.

No farmer who has an acre or more of potatoes can afford to get along without the use of a four-wheel horse sprayer. I want to give a word of warning against getting a low-pressure or cheap machine. A poor sprayer is one of the meanest implements a man ever owned. Spraying, to be effective, must be done thoroughly, and it cannot be done thoroughly with a low-pressure sprayer. As perhaps some of you do not understand the principle of spraying for blight, I will try to illustrate. If you could take a hill of potatoes and dip it into Bordeaux mixture four or five times during its growing period, that hill would never be struck by blight, or its tubers by rot, as you would have coated leaf, stem and stalk with the Bordeaux. Now, we cannot hope to do as good work as this with a sprayer, but we must come as near to it as we can; and we cannot begin to do this with a low-pressure machine; but if we have a high-pressure machine, of say sixty pounds, and use a fine nozzle, we will get our spray like a jet of steam from a boiler, forced among the leaves of the plants, coating the stems and stalks, and to a large extent the under side of the leaves. A barrel of mixture with a high pressure will go farther and do better work than in a low-pressure machine. The hand-pump machines will do good work if you have a good man on the pump, but it is hard work to keep the pressure up to where it ought to be, and the power machines are much more satisfactory. Do not buy any sprayer without first looking at the agitator, as this is one of the most important parts, and be sure that it extends across the barrel, or nearly so, whether the barrel is upright or on its side, and that it plays close to the bottom. In no other manner can the mixture be kept perfectly stirred, and even work insured with Bordeaux mixture.

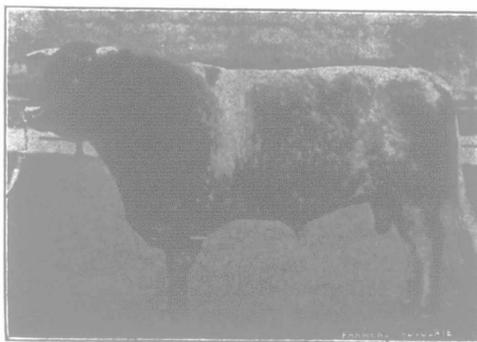
Bordeaux mixture is the proper mingling of two mineral substances, viz., copper sulphate, or blue vitriol, and common lime.

I will give my method of preparing the mixture for potatoes, the user remembering that for plants of tender foliage the strength must be reduced. Get two strong barrels, holding fifty gallons each, oil barrels being the best, as they won't dry out as quickly when exposed to sun and wind. Dissolve in one of them fifty pounds copper sulphate; this will give one pound copper sulphate to each gallon of water; pour into the other barrel about three pails water, and then turn in fifty pounds of good unslacked lime, having at hand a stout paddle for stirring. Watch carefully when this begins to boil, and stir constantly, adding more water as it slacks to keep it from burning, the object being to cook the lime without burning; and when this is properly slacked, the barrel will be about half full of lime which will be about the consistency of mush. If not desired for immediate use, it is well to let this

set in this state a few hours before filling the barrel up with water, as cooking dissolves the lime better, there being less coarse material to strain out. Before using, fill the barrel up with water, and stir. This gives one pound of lime to each gallon of water; this also will keep indefinitely.

If your sprayer tank holds fifty gallons, pour five gallons of the copper sulphate solution into the tank, and add clear water enough to fill about half full; then add Bug Death or Paris Green—about fifteen pounds of the former, or about four ounces of the latter—mixed in water enough to run easily in a pail. Now put in five gallons of the lime solution, stir thoroughly, and fill the barrel up with water. Mixed in this way, the copper solution will not curdle the lime and clog the strainer over the feed pipe. You now have a mixture that is not only the most deadly to bugs, but the best fungicide known.

Brunswick, Maine, U. S. A. E. A. RODGERS.



Collynie Conqueror (78609).

Four-year-old Shorthorn bull, bred by Wm Duthie, Scotland. First prize and sweepstakes at Royal Dublin Show, 1904.

From the Hired Man.

At the present time, when the necessities of the country are requiring the importation of farm help, and the farmer in Canada is coming into more general contact with experienced farm help and others from abroad, of all degrees of intelligence, it may not be amiss to some of your readers to learn something of the feelings of one who, some 15 years ago, became a hired man on a Canadian farm.

In Scotland, I never had anything to do with farming, and had lived in a large city nearly all my lifetime. This may be the case with some who, coming direct from Britain this spring, will hire out on farms.

On looking back, what comes first to mind is the dreadful homesickness. None can understand the feeling but those who undergo it. If you farmers find your Old Country help very quiet and reserved, and perhaps cross, just put yourselves in his place, mentally. Your help has severed himself from all his old associations. Things trifling in their way, but very dear to him, are occupying his mind. All his surroundings are new and strange, and he feels quite odd. A little consideration of his feelings now and again, and a little sympathy shown him, will make him an interested workman. I remember one man I worked for used to come once in a while to me in the field, and after a "Weel, Aleck, are ye lonesome," he would wait and tell me about Canada, and the ways of the neighborhood, and chat about the homeland, though he had never been out of Canada. I could have worked for that man night and day after these little chats, they were so encouraging. Another man I was with in those lonesome days used to wake me between 4 a. m. and 5 a. m., by the weather wet or dry. After a few chores, we had breakfast, which was more like a scamper over the table. Then, when there was no work to do on the clearing, he would send me away alone to the back end of the lot to clear up the slash and fire stumps, if fine, or work about the barn if wet. It was awful to be away at that "back end" alone, for one's thoughts are not of the cheeriest during homesickness. The farm was in a lonely spot at the best, but had he only chatted with me once in a while, I would not have felt so lonesome. It was sacrilege, too, to stop working while daylight lasted.

Writing of breakfast, brings to my mind one farm, where at 6 a. m. I had porridge, bread and butter and tea for breakfast. By 10 a. m. I was almost too hungry to crawl; while by dinner-time I was past enjoying food, and what I did eat made me drowsy and next to useless all the afternoon. This style of dieting, I must say, I found an exception to the rule. A young man fresh from a sea voyage and out in the open air all day needs substantial meals if hard work is expected of him.

At home, I had been accustomed to a bath two or three times a week. On my first farm I found such a matter was of no consideration at all. I got over the difficulty after a while by rising very early on Sunday mornings, and taking two wooden pails of water to the barn, I had my bath before anyone was up. This proceeding somewhat astonished the household. On another farm, I was encouraged to bathe regularly, and all through a severe winter I had my weekly bath. My experience is, however, that the bath is not the common institution it ought to be on the farm.

One farmer I was with showed some irritation when he saw me reading. I am fond of reading, and at dinner-time, when resting, I liked to have a book with me. I never got more than a few minutes [at it, though, for that farmer seemed to think I was wasting time, and usually found some chores for me to do. Then, in the summer time, we were never done with work till dark. On another farm, the day's work was done by 6.30 or 7 p. m., except a few evenings at haying or harvest.

A man is, of course, hired to work, and during work hours he has no right to do anything but what he is required to do. Outside of work hours, though, if the man shows himself able to appreciate some little attention to his comfort, then it is a mutual advantage to take an interest in him, and make him feel that he is something more than a farm tool.

ALICK.

Application of Farmyard Manure.

Should manure be applied fresh or rotted? The answer to this question must be that it depends upon conditions. It is true, as a rule, that the fresher we can get the manure to the field the less is the loss of plant-food. It is difficult so to keep manures and so to control fermentation that there shall be no loss. Recognizing this fact, many advocate taking manures to the field about as fast as they are made. It may be further urged in favor of this practice, first, that fresh manure carries more humus to the soil than that which has been rotted, as in the process of rotting a portion of the organic matter is destroyed; second, most of the manure made upon the farm is produced during the winter months. On the majority of the farms the amount of work at that season is comparatively little. In the spring, on the other hand, work is much more pressing. It is a great practical advantage, therefore, and may be a considerable source of economy in the cost of getting out the manure, to do the work about as fast as the manure is made during the winter. The question will doubtless be asked, however, if manure is spread during the winter, does it not suffer serious loss through lying upon the surface? In considering this question, it is important to remember that the proportion of soluble constituents in fresh manure is less than in rotted. It is further important to remember that fresh manure does not contain any considerable amount of ammonia, while rotted manure may. If manure is spread during the winter months, before the nitrogen of the urine or dung is converted into ammonia by the process of decomposition, there is nothing of value in the manure which can escape into air; and ammonia will not form to any considerable extent at the low temperatures prevailing in winter in the manure which lies upon the surface. The only source of loss, then, would appear to be through the washing out and escape over the surface of a portion of the soluble constituents of the fresh manure. This loss may in some situations be serious. If, however, the field is fairly flat, or if on a moderate slope it has been cross-plowed with a rough furrow late in the fall, the amount of wash over the surface will not be great. If the winter is open and the rains and thaws are frequent, the manure as it lies upon the surface will, of course, be leached, but if the water which flows through the manure soaks into the soil, this does not involve any loss. It doubtless would be a mistake to apply manure on grass land or on steep slopes in late fall or winter, when it must be allowed to remain upon the surface, but it should be remembered that this loss is likely to be less with fresh manure than with rotted. It is doubtless to be expected that when any fresh manure is spread during the fall or winter there must be some loss of manurial value, but in many cases it appears to be true that the saving in the cost of the application is sufficient to more than offset such loss as is likely to occur. Whether the manure should be applied fresh or first rotted must be determined in part by the nature of the soil and by the crop.

For cold, heavy soils, coarse, quick-fermenting manures are to be preferred. They increase the porosity of such soils, and their decay in the soil improves its mechanical condition. For the lighter soils the finely-rotted or cold manures should be preferred. Market-garden crops must usually be manured with fine, well-rotted, quick-acting manures, while for crops like grass and corn the slower acting manures may be selected. There appears to be much need of further light on the general question of the expediency of spreading fresh manure on fields in winter. Many good farmers follow this practice, but there are also many who believe it to be a mistake. The comparative results of the two systems will, undoubtedly, vary to a considerable extent in accordance with the variations in seasons. It is believed that during many winters the loss of manurial value would be exceedingly small, but we doubtless have occasional winters, such as a winter when there are heavy rains and thaws, in which the loss in the wash over the surface would be large. Only a careful series of experiments extending over a number of years can be expected to solve this question.

Perth Co., Ont.

FARMER.

In the Sugar-beet Field.

GERMINATION.—Care must be used to plant at the right time the same as with any other crop. This must be determined by the moisture in the soil, its temperature, and the weather.

In from seven to ten days, if the soil is warm and moist enough, the beets will begin to make their appearance. The real struggle on the part of the grower for a crop begins at this juncture. There are several kinds of emergencies that may arise at this tender stage of the plant; a frost or a hail storm can do them considerable damage, and they may have to be replanted. In replanting it is not good practice to undertake to reset beets extensively.

The germinating period is the anxious time of the beet-grower. A beating rain may crust the surface to such an extent that the beets cannot penetrate it. In such cases valuable results may be produced by using a harrow to break up the crust of the surface. At every stage of the crop the beets must be kept clean and cultivation must begin at the earliest possible moment. Sometimes they are cultivated soon after planting. These first cultivations are accomplished with special beet cultivators, which work several rows at a time. These cultivators are adjustable to the width of the rows, and usually have, for the first cultivation, small, loose, sharp knives running parallel with the surface, and designed to cut off the grass and weeds just below the surface.

BUNCHING AND THINNING.—About the time that the beets show the fourth leaf the bunching and thinning process begins. This is necessary to remove the excess of plants. Single plants should be left in the row from six to ten inches apart, depending on the distance between the rows and the kind of soil. The time of thinning is important. If the proper amount of seed has been used there will be a considerable excess of plants, due to the nearness of the seeds to one another. A still further excess results from the fact that each particular seed contains from one to six germs, all of which are liable to germinate.

It is quite evident that if all the germs in a single seed grow we are liable to have a bunch of several plants standing very close together, often intertwining and forming a network of rootlets. The longer these plants are allowed to grow in this way the more complex, difficult and harmful becomes the process of removing the superfluous plants. If this thinning is put off too long, it disturbs the position of the plants which are to remain, breaks their tender rootlets, and materially and permanently injures them. Every effort should be made to accomplish this thinning as quickly as possible. A little money spent at this stage proves a very valuable investment in the after stages of the plant. A beet-grower should prepare himself beforehand, and be ready to accomplish this work quickly, and not allow it to drag along. With the best of intentions and preparations, he is liable to be more or less hampered by rains and other difficulties, but he should not fail to exert his best efforts to get his crop thinned as soon as possible after sufficiently matured for this purpose.

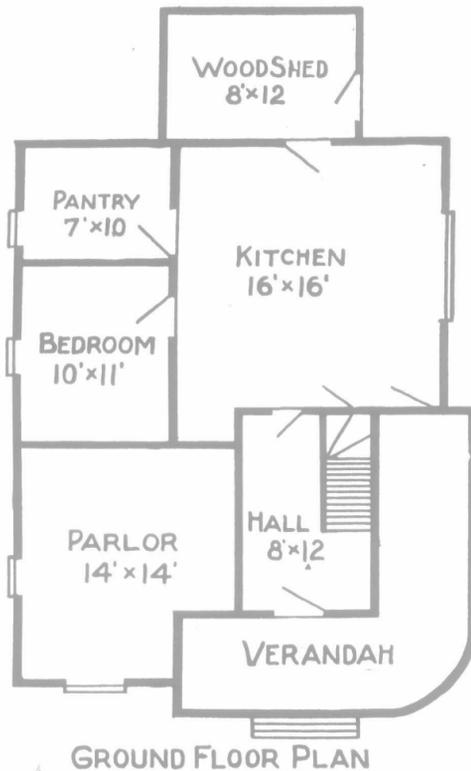
The process is known in the common parlance of the grower as "blocking and thinning." Blocking is accomplished by a person walking along the row with a short-handled hoe, sharp and of sufficient width, cutting out part of the beets so as to leave bunches the proper distance apart for the plants in the row. Thinning is accomplished by a person creeping along on his hands and knees, and with a deft movement of the hands and fingers removing all the plants in the bunch except the one his eye selects as the strongest plant. This all requires agility, attention, and industrious and laborious effort; it is in a sense a kind of cultivation, because all the soil is loosened around the plant, and should be compressed around it again with the hand before going on. Grass or weeds growing around the plants should also be removed.

CULTIVATION.—The methods of cultivation are various. The object sought is the elimination of the grass and weeds, the conservation of moisture, and the loosening of the soil around the plants. Beets must be kept clean. By this term in sugar-beet growing is meant more than in corn growing. It is desired that these beets shall be rich in sugar. The sun and air are the great reagents which accomplish this result in the beets. Weeds and grass must be eliminated from the crop in order that this may be accomplished. Beets are a vigorous crop, and they should have the full sustaining power of the soil, and not divide it with waste plants and weeds.

The cultivation of a beet crop should begin the moment the soil is broken up for planting to beets. If the land is broken in the fall, it should be harrowed immediately, possibly rolled. It should be allowed to rest for a while, giving the weed seed time to germinate and come up; then it should be cultivated and harrowed again. In the spring, after stirring, it should be cultivated and harrowed several times until ready for planting. After planting, it should be gone over with a "weeder" or harrow as soon as the weeds and

grass begin to appear. These harrowings, etc., kill weeds, conserve the moisture, and prevent the soil from baking. A cultivator should be brought into requisition at the earliest possible moment, and the services of the "weeder" or harrow continued alternately with the cultivator, even after the plants are up. Cultivation should be continuous from the moment the beets come in sight until they become so large that it is impossible to continue.

After the first cultivation the horizontal blades of the cultivator are replaced with elliptical blades, which penetrate the soil three to four inches and loosen it, making a dust mulch which conserves the moisture in the soil and promotes the growth of the plant. The cultivator is usually drawn by a single horse or mule, and is



manipulated by a single laborer, who usually cultivates two or four rows at a time.

It can be seen that this part of the work is not particularly laborious. One man and one horse can cultivate many acres of beets in the course of the season. The number of cultivations given a crop varies according to the exigencies of the case. If it is a dry season, cultivation should be continuous in order to maintain a dust mulch and conserve the moisture. If the beets are excessively weedy, hand hoes should be used. The number of times the beets should be hoed also varies. The crop should be kept absolutely free of weeds; the ground should be kept soft and in good condition. If the land has become foul, the more hoeing the better the results. If the land is fairly clean, but little hoeing will be necessary.

CHAS. F. SAYLOR,
U. S. Department of Agriculture.

A Negro Potato King.

What can be done by ceaseless industry, indomitable perseverance, and—may we add, not least, though last—good business ability, has seldom been more strikingly exemplified than in the career of Junius G. Groves, Edwardsville, Kansas, a negro, of whom Booker Washington writes in the May issue of the Outlook. Mr. Groves was born in Kentucky in 1859, the child of slave parents. A few years later, however, under the proclamation of Abraham Lincoln, he became free. During his boyhood he received very little schooling, yet the little he got inspired him with a thirst for knowledge, which he gratified at every possible opportunity. In 1879 he went to Kansas, and had when he reached there just ninety cents in his pocket, and hired with a farmer for forty cents a day, boarding himself. Mr. Groves' "career," however, began on the auspicious day upon which his employer gave him a plot of nine acres of land to work on shares, supplying him with a team, seed and tools, on condition that he should plant, cultivate and harvest the crop, and keep as his reward one-third of what was made. Although his capital only amounted to 75 cents, he determined to marry, and he and his wife set up housekeeping in a little shack on their small domain. Together they worked the land, putting in three acres in white potatoes, three in sweet potatoes, and three in watermelons; and at the end of the year found that they had cleared for themselves \$125. From this small beginning they went on, first renting, then buying, the first farm of their own consisting of 66 acres. From this time their progress was constant and rapid. Little by little they added to their land, according to their means. To-day they own 500 acres of the best part of the Kaw Valley, land easily worth from \$125 to \$250 an acre, and live with their family of eleven children in a fine building, built at a cost of \$5,000, which contains fourteen rooms, bath-rooms, a private gas plant and water system, and a local telephone. Upon the farm there is also a well-painted barn that cost \$1,500, a smoke-house, and a warehouse in which 6,000 bushels of seed potatoes are kept during the winter. Mr. Groves has also had constructed a private railway track, which leads from his shipping station to the main line of the nearest railway. Besides, he owns and operates a general store.

Several fine orchards are scattered over Mr. Groves' farms, but potato-growing is his specialty. Last year his potato crop amounted to 72,150 bushels of white potatoes, averaging 245 bushels to the acre; a quantity estimated to be 12,150 bushels more than any other individual potato-grower in the world produced. Besides those raised on his own farm, he also buys and ships potatoes on a large scale, exporting them to every part of the U. S., to Mexico, and to Canada. He has educated himself so that he can now analyze and classify the soils on his farm, and so guide himself as to the application of the fertilizer especially suited to the various soils. He uses only the latest improved cultivators, potato-planters, potato weeders and diggers, and although fifty laborers are employed by him during the busy season, he uses machines wherever available.

His fame rests on his success with potatoes, his good name in the Valley on things more enduring. He is described as a man of tact, keen insight, scrupulous honesty, good financial sense, and courteous manners. He is a good churchman, and is very particular as to the education of his children, three of whom are receiving training in the Kansas Agricultural College. In short, as his neighbor, Senator Taylor, says of him, he is "one of the best men, white or black, in the Valley"—a name even more to be coveted, surely, than that of "The Potato King."

Plan of Farmhouse.

You will find enclosed an illustrated plan of house, which I think would answer the purposes of the average farmer.

It is a house of moderate dimensions, and can be built complete with cement cellar and a furnace installed for about \$1,000 or \$1,100.

You will notice the absence of a dining-room, which some seem to think so necessary. Now, in a small family this room is not really needed, as it makes more work for those in charge, and, generally, if there is a dining-room the parlor is never used except in case of visitors. So I think it better to have a bedroom instead of a dining-room, with a spacious kitchen and pantry, and a woodshed at the rear for use as a summer kitchen in summer.

You will also notice there is ample room upstairs for hired help and visitors.

WALTER E. WELLS.

Ther culture, one tha stantly year, presence We have ticular perennia more of the "ye contemp "Wee called, the prop Although ural hab namely, with Be sible be the leav

Those these ve they ca cure a o far not spraying the prop phate to forty to easily n with the mere ba other w as bind whose f need of ticed th when th they ha hardened

Mr. J for Leed of butter "The with thi could be facilitate give ord take ord of brand

"Far doing a Canada, result, o salt. Th of them, for confa competit much me package.

"Sib packed in principal market tubs whi the farm pounds o quite unq discolora fresh-ma Western cold stor when it

"Just Canadian cise more of their either 56

"The formly a has not butter is beautiful

"Pro 'process article,

'process ferent qu them wit uniform

would su butter th direct, w nauseam,

that he fairly go flavor, an storage i

age, wo sale. E Siberia i

"The Yellow Peril."

There is a "yellow peril" that threatens agriculture. It is not a possible or distant peril, but one that is now present with us. It is not constantly before us during a greater part of the year, but during the months of June and July its presence in many localities is painfully evident. We have been in the habit of designating this particular evil by the names of wild mustard and perennial sow thistle. In a vernacular savoring more of the oriental, and one that might associate the "yellow peril" of agriculture with its social contemporary, this evil might be designated as "Wee gain," or "We lose." Whatever it be called, there is by far too much liberty given to the propagation of these yellow-flowered weeds. Although quite dissimilar botanically and in general habit, they are quite alike in one particular, namely, they may both be destroyed by spraying with Bordeaux mixture. This advantage is possible because of the roughness and coarseness of the leaves of each of these plants.

Those whose farms are infested with either of these weeds need not be told of the immense injury they cause. What concerns them most is to secure a quick method of eradicating them, and so far nothing promises better for this purpose than spraying with a solution of copper sulphate, in the proportion of about ten pounds of copper sulphate to forty gallons of water, and at the rate of forty to fifty gallons per acre. The mixture is easily made and applied; it does not interfere with the growth of a grain crop, and its cost is a mere bagatelle. The solution also destroys many other weeds with which it comes in contact, such as bindweed, annual sow thistle, etc. To those whose farms are infested with these weeds the need of spraying is urgent, and should be practiced thoroughly just before the mustard blooms, when the plants are all above ground, but before they have developed their resistant powers or hardened their surface tissues.

DAIRY.

Canadian Butter in England.

Mr. J. B. Jackson, Canadian Commercial Agent for Leeds and Hull, Eng., writing on the subject of butter, under date of May 16th, says:

"The creameries of Canada should correspond with this office, as a large quantity of their butter could be placed in this district, and it would facilitate this trade if they would write direct and give quantities per month they are prepared to take orders from here for, together with the names of brands, if any.

"Farmers' Butter.—A large firm in Newcastle, doing a large business in farmers' butter from Canada, are very much dissatisfied with last year's result, owing to its irregular quality and excessive salt. They say: 'These butters are used, the best of them, for a cheap counter butter, the remainder for confectionery purposes. And they meet in competition on this market with the Siberian, a much more uniform butter in both quality and package.'

"Siberian Butter.—The Siberian butter is packed in either 56-lb. boxes or in Danish casks, principally the latter, and this package suits this market much better than the little 28- or 56-lb. tubs which the Canadian farmers use. Some of the farmers put no less than from one to three pounds of salt on the top of the tub, which is quite unnecessary, and it very often gets damp and discolored. One lot especially, we bought it for fresh-made butter in the best butter district of Western Ontario, sent it straight to the Toronto cold stores, brought it over in cold chambers, and when it arrived it was stale and off flavor."

"Just such occurrences as the above destroy our Canadian butter trade. The farmers must exercise more care in the making, packing and salting of their butter, and must use different packages, either 56-lb. boxes or 112-lb. casks, not tubs.

"The Canadian creamery butter is not uniformly as good as the Danish, it is softer, and has not the same grain. The Danish creamery butter is more like A1 farm-made butter, with a beautiful grain and excellent natural color.

"Process' Butter.—A large quantity of 'process' butter is sold here, and is a fairly good article, generally packed in 56-lb. boxes. The 'process' consists, I am told, in taking the different qualities of store butter and re-churning them with hot milk, and in this way getting a uniform product both as to color and flavor. I would suggest to the exporter of Canadian store butter that instead of shipping the original article direct, with its different colors and flavors, and nauseam, and only fit for confectionery purposes, that he 'process' it, and in this way obtain a fairly good cheap butter of uniform color and flavor, and a butter that if put directly into cold storage in Canada and shipped here in cold storage, would command a good price and a ready sale. Especially is this the case at present, as Siberia is our principal competitor in the cheap

lines of butter, and if the present war is prolonged this supply will be cut off and Canada will have a chance to supply most of the shortage."

[NOTE.—Mr. Jackson, acting for the Department of Trade and Commerce, is hunting up some useful information for our dairymen and others, but he should be made aware before giving the foregoing advice, that under the Adulteration of Butter Act, the manufacture, importation or sale of "process butter" is prohibited in Canada. But it is evident that if butter has been going forward from Canada as described by Mr. Jackson, then there should be some more efficient system of inspecting exports of butter, or the reputation of Canadian butter will be ruined.—Ed.]

Overrun in Buttermaking.

During the last year at the Iowa station we have been conducting experiments on the question of overrun. We have also been carrying on an educational scoring contest, making complete analysis of each sample of butter sent in each month.

These analyses have revealed to us some startling facts on the reason why one creamery is able to pay more than another. In some of these analyses we find a difference of fifteen per cent., or in other words, we find that one creamery makes fifteen pounds more butter from one hundred pounds of butter-fat than another.

We have makers exhibiting in this contest, who have a reputation for paying extreme prices for butter-fat, and their butter-fat has invariably shown three or four per cent. increase over the average.

While we have not completed our contest, the indications are that the average water content for butter will run about twelve per cent., but the water content alone does not entirely govern the overrun. We find the amount of casein runs from 7 to 3.27, and the amount of salt from 5 to 4.5.

We also find that the butter high in casein will keep about as well as the butter running low in casein, or in other words, the amount of casein butter contains is not always an indication of its keeping qualities. It depends more on the condition of the casein or on the condition of the cream, or, possibly, on the kind of wash water used in washing the butter.

For instance, we had one sample of butter containing about thirteen per cent. of water, 3.06 of casein, and 2.95 of salt. This butter, after being exposed to a warm temperature for eight or ten days, and then shipped to New York, scored within two points of what it scored at Ames, scoring ninety-four at Ames, and ninety-two in New York, by Mr. Healy. No criticisms were made in either case on the amount of salt.

In this case the butter would have an overrun from the chemical analysis of almost 23.5 per cent. Now, if this maker had incorporated fifteen per cent. of water, he would have had an overrun of 26.5 per cent.; that is, based on the chemical analysis.

Undoubtedly, however, there would be as much as three per cent. loss in the skimming and churning process, which would, of course, have to come from the 26.5 per cent. We have no methods to determine how much loss is sustained in the process of manufacturing, we can only approximate this by general good workmanship.

Usually, the maker of good butter does good work along other lines, such as close skimming and good churning, but because a man wins a gold medal or makes high-flavored butter, it is no indication that he is getting a large overrun. I believe the American buttermakers are pretty weak on this particular point.

The chemical analysis of Danish butter shows about fifteen per cent. of water, while the American and Canadian butter shows about twelve per cent. Thus, we find that the Dane is making about three pounds more butter to the 100 pounds of butter-fat than our American buttermakers, providing he has the same amount of casein and salt present in his butter. —[Prof. McKay, Ames, Iowa.]

To Dilate Constricted Teat.

The question of hard milkers came up the other day, in the presence of a dairyman who had "travelled" considerably. Says he: "Very likely there's a difference in causes, as you say; nevertheless, my plan has never failed me yet, and if there is anything I dislike in dairying, it is those hard milkers. But, I go for them, and in two weeks I have a cure. Just get some slippery elm, you know it is worse than basswood for swelling, make a round plug as thick as a match; make it have a swell-head, so that it will not come out. Wind some silk thread around it. As it swells in the constricted part of the duct, it dilates the teats. Let it stay until you want to milk, then a tug at the silk thread brings it out. Dip the plug in carbolic acid, and then in water that has been boiled, before inserting." The use of a slippery elm plug is preferable to any other kind of wood, for the reason that it swells so gradually the cow is not made uncomfortable, which she would be were a large and less expansive plug of fir, or pine, inserted.—[Jersey Bulletin.]

Butter: From the Stable to the Table.

There are two methods of creaming milk, the natural or gravity method and the cream-separator method. As the former is the older method, we will consider it first. We do not advocate the use of shallow pans, only in cases where one or two cows are kept, or in the spring and fall, when the ice supply has given out. Strain the milk into the pans as soon as possible after milking, using a fine wire strainer, with two or three thicknesses of cheese-cloth fastened over the bottom with a tin hoop, so as to be easily removed, for the cloth must be well washed and scalded each time after using. Keep the milk in a cool, well-aired room, free from odors. The milk should stand twenty-four hours in summer, and from thirty-six to forty-eight in winter, and the cream should always be skimmed off before the milk thickens. . . . Where ice can be procured, or where there is a cold spring, the deep pans are a great improvement over the shallow ones. You may use a box or barrel; the only essentials are to keep it sweet and clean, and use plenty of ice. Strain the milk into cans as soon as drawn, and place immediately in the water. To obtain the best results, the milk should be quickly cooled to forty-five degrees or below. When the milk has cooled, cover the cans. Avoid disturbing the milk while the cream is rising.

The ideal method of getting the cream from milk, however, is by the cream separator. A separator, if properly handled, should mean more butter, better butter, more young stock, and less labor.

PASTEURIZING.

Pasteurizing is not necessary if good-flavored butter can be made from the raw cream, but if flavors due to the presence of undesirable germ life, or to cows getting turnips, weeds, etc., are present, pasteurizing will ensure getting good-flavored butter with increased keeping qualities. Keep the cream sweet until sufficient is collected for a churning, then pasteurize it in this way: Place the can holding the cream in a vessel of hot water. Do not have the water rise to over 180° F. or the cream will have a cooked flavor. Heat the cream to 160°, stirring very frequently. Remove from the fire, and let stand twenty minutes. The cream is now a clean seed-bed, into which, if we wish it to ripen quickly, we must put a starter. A good starter may be obtained by filling a sterilized Gem-jar with milk from a healthy, fresh milch cow. Set the jar of milk in a warm, clean place to sour naturally. When sour it should have a clean smell, and a sharp, pleasant, acid taste. The amount of starter to use depends on the length of time the cream is to be held, the weather, and the kind of cream. The amount may vary from five to fifteen per cent. In winter, when the cream is to be churned next day, ten to fifteen per cent. of starter is not too much.

If the cream has been pasteurized, when it has cooled to 80 degrees put in the starter, stir well, cool to between 60 and 70 degrees, then stir occasionally to insure even ripening. When it has a slightly acid taste, cool further to 55 degrees, or lower, and hold at that temperature till churning time. It is well to have two cream cans, as there is always a skimming which should not be added to the can before churning time. No fresh cream should be added to the ripe cream for at least twelve hours before churning time. The cream can should be well washed, aired and scalded each time used. If the cream is not to be pasteurized, to the first skimming may be added a pint of the sour cream on hand. This acts as a starter, and controls the flavor. Stir well each time fresh cream is added, and keep in a room where the temperature is from 55 to 65 degrees. Separator cream should be cooled before being added to the can. When the cream is ripe enough, it should be of the consistency of syrup, and when poured should have a smooth, velvety appearance, and an agreeable taste and smell. Holding the cream too long gives a bitter flavor. Cream should not be allowed to freeze.

CHURNING AND WORKING.

Before starting to churn take the temperature. If it be too cold, place the can in a pan of hot water and stir. Try not to have the cream so warm that it has to be cooled, as it is likely to give soft butter. As to temperature, the poorer the cream, the higher the temperature; the less cream in the churn, the lower the temperature. Where cream is properly cared for, the temperature in winter will vary from 56 degrees to 62 degrees, and in summer from 54 degrees to 60 degrees. Avoid having too much skim milk in the cream, and too much cream in the churn, as these are the two chief conditions that cause long churning. The churn may be either round or square, but should have no dashers inside.

Scald the churn and rinse well with cold water. Strain the cream into the churn through a perforated dipper. In winter, it is necessary to use a little butter-color of a reliable brand—a teaspoonful to four gallons of cream is sufficient. Measure the color, and pour directly on the cream. Put on the lid, and revolve the churn 70 or 80 revolutions to the minute, drawing the plug occasionally to let the gas escape. When the butter has broken, add two or three quarts of water, the temperature of which will depend on the condition of the butter. If it has been quick in coming, have the water 52 to 54 degrees in winter, and colder in summer. If you have been a long time in getting butter, do not add the water until you have

the butter the size of wheat grains, and are ready to draw off the buttermilk.

To wash the butter, strain into the churn about as much water as you had cream. Put on the lid, and revolve rapidly a dozen times. One washing is sufficient, unless the water comes off very milky, which it should not do. Let the butter drain ten or fifteen minutes.

I prefer salting in the churn. The quantity to use will vary with the taste of the consumers, but, as a rule, one ounce to the pound when salting in the churn, and three-quarters of an ounce when salting on the worker, is sufficient. After the amount of butter has been ascertained and the salt weighed, sift the salt through the dipper, put the lid on, and rotate a few times; let stand for half an hour, then gather into lumps by slowly revolving the churn. Allow the butter to remain in the churn from two to four hours; take out, and give sufficient working to remove the excessive moisture. The buttermaker who is still using the butter-bowl and ladle should abandon it and get a lever butter-worker. When the moisture is nearly all expelled, and the butter has an even color and close texture, it has had sufficient working.

In getting ready for the local market, there is no package neater than the pound print. Fill the print by pressing down on the butter, which has been rolled out to about three inches in thickness on the worker. Scrape off the bottom evenly, and wrap the print in the best parchment paper, which has been wet in clear, cold water. When you go to market, see to it that not only the butter, but the basket and yourself are as neat and clean as can be. A buyer first looks at the one who has the butter for sale, then at the butter. Let it be the aim of every buttermaker to produce butter of the very highest grade, and only can this be done by exercising the greatest attention and care in every detail of its progress from the stable to the table.

Dairy Produce Dull.

We extract the following remarks from the circular of Messrs. Samuel Page & Son, London, (Eng.), dated May 4th:—"The purchases of butter by speculative buyers made at the beginning of last winter, and during the following months, have turned out most disastrously. In a great many cases 12s. to 16s. per cwt. has been lost on large parcels of butter, and as frequently the same firm have also bought cheese which show a loss of 12s. to 14s. per cwt., their adverse balances are enormous. And there is no doubt that the trade generally is suffering from the disturbance to regular business that these unfortunate speculations create. The foregoing remarks respecting butter apply equally to cheese, the similarity in the factors affecting the markets being quite remarkable. Both are characterized by a heavy fall in prices, following upon abundant supplies—it is calculated that the stock of Canadian cheese in London is about ten times as large as at this time last year, and the total arrivals of New Zealand up to date, amount to 48,670 cases, as against 30,074 cases for the corresponding period of last season, an increase of 18,596 cases. In both cases business is suffering from a collapse produced by a market unduly inflated by speculative dealers, who naturally wished to bolster up prices in order to get out of their purchases with as little loss as possible. But their views have proved entirely wrong, and finest old Canadian is now pressed for sale at 43s. to 44s., while new season's make is freely offered at 37s. to 38s., and New Zealand is slow of sale at 38s. to 42s. There is also a quantity of United States cheese now on offer at 20s. to 36s. per cwt., while at this time last year such description was conspicuous by its absence."

Blue and Stringy Milk.

Dr. James Law, Professor of Veterinary Science at Cornell University, in a bulletin of the Department of Agriculture, calls attention to the cause of the blue appearance of milk. Watery milk is blue, but the presence of a certain germ causes a distinct blue shade, even in rich milk and cream. The germ may get into the milk after it has been drawn from the cow, or it may find its way into the opening of the milk ducts and get into it while being milked. Frequent milking is recommended as a means of flushing out the germs, and the injection into the teats of a solution of two drams of hyposulphite of soda in a pint of water will destroy them.

Speaking of the causes of stringiness in milk, Professor Law says that this is caused by fungi, which he believes develop in the system of the cow. In the affected cows the temperature is raised one or two degrees above the normal. Like most other fungi, this does not grow out into filaments in the milk, while it is within the body of the cow, but in five or six hours after milking the surface layers are found to be one dense network of filaments. If a needle is dipped in this and lifted, the liquid is drawn out into a long thread. Care should be taken in the live-stock water supply, which is likely to cause stringiness. Professor Law recommends two drams of bisulphite of soda daily, until the stringiness disappears.

Factorymen Getting Ready.

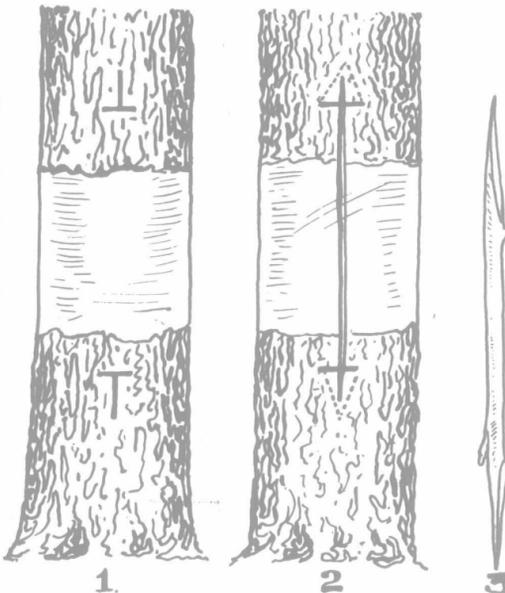
Chief Instructor Barr, of the Western Ontario Dairymen's Association, has visited many of the cheese factories in Western Ontario, and reports improvements general all over the district. The spring clean-up in many factories has also been accompanied by new floors, new tanks, fresh paint, alabastine, etc. Everywhere there are more extensive preparations for a good season's make than has ever been noticed before. Milk supplies are not as large as at this time last year, owing to the scarcity of feed, the long, hard winter, and the low price of cheese. With the new grass, however, it is expected more milk will be sent forward.

Venus and the Cow.

In view of the novel expedient adopted by the Dominion Department of Agriculture of exhibiting oil paintings of Canadian live stock at the St. Louis World's Fair, in lieu of living specimens, the following quotations from a piece of fiction, entitled a "Summer Hymnal," written by Mr. John Trotwood Moore, a lover of country life, and particularly devoted to horses and cows, seem appropriate. The volume is a romance of Tennessee, where Mr. Moore lives and studies nature. Here, in part, is his idea of cows. He says:

"And the cows—I love to lie down with them, on the grass—for, if one really wishes to learn something, one must lie down with nature. And so, when I really wish to think, to solve the problems that confront me daily, I go out to that cool and shady spot and talk it over with the cows.

"I love to talk to the cows—and to Miss Cynthia.



1—The incisions before the bridge is placed. 2—The finished bridge. 3—A scion for grafting.

But I believe I'd rather talk to the cows than to Miss Cynthia, because they never ask questions.

"Besides, though I love a horse, and all others of our domestic animals, it is my deliberate opinion that the Jersey cow is the most perfect animal that lives. From the big, tender and thoughtful eyes, which give so much character to her clean-cut, dished and bony face, to the dainty switch that graces her tapering tail, there is not another animal that walks the earth with more grace and beauty, and combining it all with so much usefulness.

"Men may gamble on horses, but there is no temptation about a cow. All her paths lead to sweetness, contentment, honest living and broader thinking. The sight of the clean, white dairy, pungent with the odor of ripening milk and cooling cream in the darkling waters, is itself a sermon on holy living; while the tinkling of the tiny streams that purr around the gold stamped tray of butter is the music that accompanies it.

"The oldest of my cows is Content. I always address my remarks to Content chiefly, because she is a fine listener.

"Content," said I, "this is a more beautiful picture than one sees on canvas, isn't it? And let me tell you another thing, you living cows are more beautiful than all the dead statues in the world.

"It makes me smile, Content, to see people going across the ocean to see works of art, when they might walk out into a meadow and see such a picture as this. Going across the sea to rave over broken-armed and broken-hearted Venuses, dug out of Pompeii, copied after Greek Aphrodites, dug out of heaven knows where, when all they would have to do is to tap one of you with a cluster of locust blossoms and make you stand up, straighten your beautiful and silver-golden sheen, to see the most perfect statue in the world.

"Stand up, Content! There, now, let's compare you with Venus.

"Broad hips (they say that is a strong point with the Venus)—why, 'twould take a yard-stick to measure yours. And ankles (that's another boast of the Venus)—well, I can span yours with my thumb and middle finger. Now, I am told these are the two strong points about the Venuses, Content; if so, they are not in it with you.

"And in looks—that sinewy health and lack of surplus flesh—why, no Spartan maid is your equal. Your eyes? They are great, still, calm lakes of poetry. Not a line about you that is not a line of beauty. And from the tapering turn of your little curving horns to the big golden quarters of an udder tucked well up behind and well out in front, I am willing again to declare that no Venus—hi—ho—but where was I at?

"Ah, yes; on the subject of art. And that reminds me, Content, of the great amount of sham and fraud that is practiced under that name. It is with art as it is with incomprehensible poetry—people rave over it who have no conception of what they are raving about. They go on about the Milos and Apollos, and the other naked things they happen to see, when their artistic caliber is about large enough to comprehend the flaming posters in the village blacksmith shop, announcing the coming of a company of soubrettes in a melodrama of faded hosiery.

"It is life that I love, Content—life, not death. And so a Jersey cow is more beautiful to me than a Venus, a graceful brood mare than Diana, and I would not exchange my saddle horse for all the Apollos that ever were mounted on a pedestal.

"It is life that I love, Content—life, not death. And suppose these statues have perfect limbs and straight noses and beautiful faces. And suppose they do look as if they were about to speak or about to move; whenever I look up into their eyes and see the big sunken holes in the marble there, I am shocked and disappointed. Throughout all the ages, no one has ever been able to put a single spark in the only place the light was needed—"the window of the soul."

"Ah, Content, turn again your big, calm eyes on me; they make me satisfied with life."

GARDEN AND ORCHARD.

Squire Attwood's Bridge-grafting System

To the Editor "Farmer's Advocate":

Sir,—Perhaps there never was a spring showing so much destruction among fruit trees by mice girdling as the present. Now, every one of those trees can be saved by bridge grafting. I have been practicing bridge-grafting for the last 40 years, and I have a way of my own of doing it which guarantees success every time. First get some twigs of last year's growth, such as grafters cut off, only longer, if possible, and as it is now too late in the season to cut any, you will have to get them from grafters. I bridge graft upon the principle of budding. It is in this way I prune and graft at each end, that guarantees success. (See annexed diagram). About one inch above, and below the girdled part, make a cross, cut with knife through the bark to the wood; then on the lower side another cut through the bark to the wood, like a T; on the upper side do the same, making it look like an inverted T. Now, with the knife, raise edges of the bark of both upper and lower down cuts; and, by the way, this work cannot be done before the sap moves and the bark will lift easily. Cut your bridge about three inches longer than your cross cuts are apart. If the bridge is a little curving, so much the better. Bevel off the curved side at both ends, say one inch back from the end; and now comes the most important part. Bevel the bark part of the bridge back, say half an inch, by a cut on each side, making the end somewhat three-sided. Now insert the lower end in the lower T; hold the thumb of the left hand under so you will not push down too far; continue to hold the thumb there, bend back the bridge and insert it into the upper T, and push up firm, but still leave a curve in the bridge. Wax each end firmly over. The curve in the bridge will prevent the ends drawing out when the wind moves the tree. Now mound up with moist earth as high as the bridges reach. In case the girdling is high up, requiring a long bridge, I recommend to lap the bridge with grafting cloth strips. They are made by dipping cotton strips two inches wide into melted grafting-wax; old stuff is best. If a mound of earth is thrown up, it is well to remove it as soon as the bridges start, say in July, as the mice may get in again in the summer, and the frost might burst them off in the winter.

I have frequently read recipes for making grafting-wax, but I never had proper wax until I made it from the following proportions: 2½ pounds of rosin, the darker and cheaper, the better wax it will make; ¼ pound of beeswax, and 5 ounces of paint-oil, boiled. Melt all together, then throw in a tub of water, and work with hands by pulling like taffy. When tallow is used, the sun will melt it down, and in time the substance perish, and the wax drops off. But when oil is used it hardens like paint, and remains on for years. In case the wax is too sticky, add more rosin; if too hard, add oil. If working on a cold day, use warm water; if on a warm day, cold water; and in all cases a little lard on the hands. When not working, throw the wax into the water.

Middlesex Co., Ont.

A. C. ATTWOOD.

MAY
To th
App
as a
"
in dia
twent
ment
defect
not b
and n
Th
greate
We ha
definit
satisf
a defn
langua
mark
will be
course
fective
The
gress l
Apple-
not he
able.
pass, i
phrase,
most s
per cen
regulat
individu
maining
rot, w
then, 8
in the
consequ
practica
grades,
the am
fect fru
This
ing, in
same pr
so far
makes i
tion of
be taken
permitted
men.
ferent s
far as t
ten per
in rapid
employe
Shadi
prove qu
late. S
strawber
well adap
shaded q
areas, an
and qual
Howe
cultural
strongly
which are
very litt
not appr
to size,
possibly
manded a
more tha
ing in ge
tion gives
Some
under "
a new so
We at o
and have
Wm. Loc
Ontario
"Mr.
has just
referred
covered
The scale
so comm
spraying
Beattie s
into the
attention
made to

Defining Grades of Apples.

To the Editor "Farmer's Advocate":

Sir,—The committee appointed by the American Apple-growers' Congress last season, recommended as a definition of a No. 2 apple the following:

"Number Two apples may be quarter inch less in diameter than Number One apples, and not over twenty per cent. of the apples affected by defacement of surface, by scab, dry rot, worms or other defects, shall be hand-picked from the trees, and not bruised or skin broken, shall be of a bright and normal color, and shapely formed."

This definition of a No. 2 apple is of the very greatest interest to the Canadian apple-grower. We have in section 6 of the Fruit Marks Act, a definition of No. 1 fruit that is in every respect satisfactory, and there is a constant demand for a definition of a No. 2; but the difficulty is that language appears to be hardly definite enough to mark out clearly the degree of imperfections that will be allowed in a No. 2 apple, because it is, of course, understood that a No. 2 apple is a defective apple.

The above definition of the Apple-growers' Congress has also been adopted by the International Apple-shippers' Association. Nevertheless, I cannot help thinking that this definition is not workable. The reference to the size of the apple might pass, though it is little better than using the phrase, "Too small to grade No. 1." But the most serious objection is the admission of twenty per cent. of defective apples, with little or no regulation as to the degree of imperfection in the individual fruits. The inference is that the remaining 80 per cent. would be free from scab, dry rot, worm holes, or other defects. Virtually, then, 80 per cent. would be No. 1 apples, except in the matter of size. Now, size is of the least consequence of the qualities mentioned, so that practically a No. 2 barrel would consist of two grades, viz., fruit with worm hole and scab to the amount of 20 per cent., and 80 per cent. perfect fruit, slightly smaller than No. 1.

This violates the first principle of true grading, in permitting different qualities to go in the same package. I would, therefore, consider that, so far from making matters better, this definition makes matters worse. In looking for a description of a No. 2 barrel, the individual apples must be taken into account, and if certain blemishes are permitted, they must be permitted in each specimen. It will not do to distinguish between different specimens in the same package, except so far as to make a reasonable allowance—say five to ten per cent.—for the inevitable errors that come in rapid work by the class of help that must be employed in packing fruit.

APPLE SHIPPER.

Shading Small Fruits.

Shading crops to promote early ripening or to improve quality is a practice considerably advocated of late. Some have reported excellent results in shading strawberries, and the crop is one which might seem well adapted to the practice. Since the plants can be shaded quite easily, the returns are large from small areas, and the prices are much influenced by earliness and quality.

However, two years' testing by the New York Agricultural Experiment Station, in two localities, speaks strongly against the practice. Except in two varieties, which are known as good forcing berries, there was very little increase in yield, the time of ripening was not appreciably influenced, and the quality, except as to size, was unfavorably affected. The practice may possibly be of advantage where large berries are demanded and paid for by the market, but the expense more than counterbalances any advantage of the shading in general field culture. Bulletin 246 of the Station gives details of the tests.

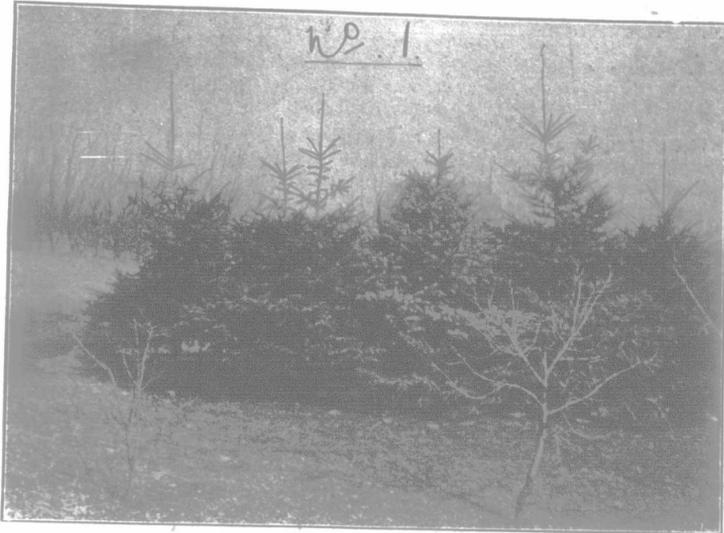
Not a New Scale.

Some of the newspapers recently published under "scare headings" the alleged discovery of a new scale insect pest at St. Catharines, Ont. We at once made careful inquiry into the matter, and have received the following note from Prof. Wm. Lochead, of the Biological Department of the Ontario Agricultural College:

"Mr. Thos. Beattie, inspector San Jose scale, has just sent me a specimen of the scale that was referred to in the public press as having been discovered by him on lilac bushes in St. Catharines. The scale is the oyster-shell bark louse which is so common in most parts of the Province where spraying has not been carefully attended to. Mr. Beattie says that he does not know how this got into the public press, and was surprised when his attention was called to the fact that reference was made to the matter in several daily papers."

Trees Should be Cultivated.

No better example of what cultivation will do to aid the growth of trees need be illustrated than the one to be found herewith. In photo-engraving No. 1 is seen a hedge cultivated regularly since planting; while the one shown in No. 2 has been in grass, with the exception of three feet immediately round the hedge. Mr. Harry Drown, Horticulturist, Brandon Experimental Farm, in sending in the photos said: "The contrast



Hedge of Native White Spruce (*Picea alba*).
Brandon Experimental Farm. Cultivated since planting.

is much more marked than shown in the photographs, the color of No. 1 being a rich, vivid green, while that of No. 2 is decidedly yellow."

The great advantage of cultivation is that it forms a mulch which retains the moisture in the soil. Growing plants of all kinds take up enormous quantities of water, but trees in particular are very exhaustive in that respect. If they are worth planting at all, and no sane person will dispute that fact, they are worth being cared for after planting. It is a common but very great mistake to imagine that trees will do well without some cultivation any more than will a crop of garden vegetables. In the woods, in their natural condition, trees are mulched with their leaves, but in small plantations the mulch must be made for them.

The Wagner Apple for Export.

Mr. John Brown, Inspector for the Department of Agriculture at Glasgow, reports to the Fruit Division, Ottawa, that the Wagner apple is much esteemed by some in the trade there, and if the fruit is of good size it is readily bought by certain of the best buyers. Others again will not look at this variety if they can get Spies or Bald-



Uncultivated Native White Spruce.

Brandon Experimental Farm. Compare with illustration No. 1, which was planted at the same time, but kept cultivated.

wins, and class it next to Ben Davis. Its color and appearance are its redeeming points, as it lacks the flavor and juiciness of the two above-mentioned varieties. Some dealers say it is a mistake to ship Wagners after the month of December, as they take on scald very easily.

The U. S. has again lost men in the Philippines. On May 8th, Lieut. Winfield Harper and thirty-nine men of the 17th Infantry were caught in an ambush by several hundred Moros. Two American officers and fifteen men were killed, and five men were wounded.

APIARY.

Getting Bees Off Combs.

By Morley Pettit.

The article in May 12th issue, page 678, I consider poor teaching, although recommended for trial by one who has wide experience in bee literature. Any careful beekeeper with experience does not need to try cleaning bees off combs by

running a Cogshall brush down into the super to know what a nasty stinging mess he would have, especially with queen and brood above.

Only dead bees would tumble off and disappear in the lower part of the hive without a strenuous and justifiable protest against such an intrusion as a long, thin whisk broom into their very hive. The queen should always be confined to the brood-chamber by a queen excluder. Bees shan't outside in the right place do not crawl about, but right into the hive, and robbers are better outside than in the hive, for if there are any about those two combs will catch them and carry them right into the hive. By the following methods there is practically

no stinging, and the hive is closed against robbers much more quickly. In removing the cloth cover from the frames, flap it rapidly, loosening from one edge and smoking under to drive the bees down. Lift the combs out one at a time, giving each a couple of sharp jerks in front of the hive, to shake the bees off on the alighting board. Set them down behind the hive, or, better still, hand to an assistant to brush off the remaining bees. Fill the super with empties, and close the hive. It will be seen that this closes the hive against robbers in the least possible time. The brushing, which is a cruel operation at best, is reduced to a minimum, and the bees which the smoke did not drive down out of the super are on the alighting board quietly running in at the entrance.

POULTRY.

A Foster Mother.

One of my pullets was very ill with roup during the last days of March. I brought her into the kitchen and applied the usual remedies, which reduced the swelling, but she refused to eat. After

letting her starve some days, I fed her by hand; while working with her, I noticed my incubator chickens were ailing, and on examination found one or two with gapes, and several were very drooping. I dosed them likewise—two or three drops of a poisonous mixture. I put the worst cases in a small pail on the top of our kitchen range. I thought, "What folly to have a hen in a box at the back of the stove, and chickens on the top," so I put the chickens under the hen; she stood

up instantly, and looked annoyed, and I think she remained standing all night. The following day I took the hen and chickens out, and fed them together; seeing the chickens eat, encouraged her to try. The second night she sat on them nicely, and the following morning, to the amazement of us all, she clucked to them, and began breaking up the bread and feeding them. I let her run with the 67 chickens, which she did for weeks. At nights I gave her one chicken on the floor, when the others were in the brooder.

TRIX.

EVENTS OF THE WORLD.

A recent despatch from Bitlis, Asiatic Turkey, states that on May 14th serious fighting occurred between the Turks and Armenians in the Sassoun district, 700 Turks and 900 Armenians being killed.

William Marconi, who arrived at New York on May 14th, on the steamer Campania, declares that he maintained constant communication with shore stations during the voyage, and that the publication of a daily newspaper at sea is a thing now practically assured.

In order to allay further apprehension as to the attitude of China towards the war, the Chinese Government has again addressed a note to the foreign powers at Peking, renewing her declaration of neutrality. An Imperial edict will also be issued again enjoining all Chinese to continue in a strict observance of neutrality.

Details of the earthquake in the Balkans, which took place on Easter Monday, have just become current. It is now known that 2,000 houses were destroyed and 10,000 people left homeless in the Jumbala Valley. All the crops in the valley were ruined by streams of sulphurous mud and water which issued from crevices in the ground.

Upon Lord Dundonald's recommendation, the Dominion Government has decided to fortify the Port of Vancouver. A strong battery of powerful guns will also be erected on Partridge Island, at the entrance of the harbor of St. John, N. B. The work will be accomplished during the summer.

The census of India for 1901 shows that the growth of Christianity has been, comparatively, far more rapid than the growth of the general population. In 1872, the Christians in India numbered 1,506,098, of whom 1,246,288 were natives. In 1901, the Christians numbered 2,928,241, of whom 2,664,318 were natives. Of the latter number, two-fifths were Catholics.

An outbreak of cannibalism has taken place on the Admiralty Islands, where a Chinaman and four blacks were recently killed, roasted and eaten. On news of the outrage, the German Warship, Condor, immediately went to the spot, arrested the ringleaders and bombarded the village. The ringleaders were taken to the nearest German station, where they will await trial for their crime.

The Thibetans are still showing firm resistance to the British advance, and are massing in such numbers as to indicate that it is their plan to exterminate the force now in Thibet. Since those now offering opposition are much better armed than those with whom the British had to do in their earlier encounters, it has been deemed necessary to take some steps in the matter, and, consequently, half a battalion of British and half a battalion of native infantry in India have been ordered to prepare for immediate service in Thibet.

The Daily Telegraph's Tokio correspondent cables the following, under date of May 15th: "A great religious meeting, promoted by influential men was held in the park to-day to determine the question of founding in Japan a church, pro-Christian in character, but on independent lines. Leading men consider the time has arrived to adopt the elements approved by the majority of civilized nations. An edict establishing a national church is not improbable."

Treasonable dealings, which bid fair to exceed in importance those with which Captain Dreyfus was charged, and in which several men are implicated, have been unearthed in Paris. It is stated that eighty-five plans of the fortifications of Toulon, along with other important military secrets, were sold to the Germans. An Italian, Cesare Gollo, and a naturalized French contractor, Jeremie Mesqui, are the chief among the accused.

The Glasgow Herald declares that the combined cargo of steel and pig-iron on the way from Nova Scotia to the Clyde is full of interest to Great Britain and America. The question of the open door to Canada for British finished products, if Canadian bounty-fed steel is to be received, is bound to become a live one in the early future. The paper deplors the fact that Scottish ironmasters have not diverted their capital long ago to the iron fields of Newfoundland and Eastern Canada instead of to the unsatisfactory fields of Spain.

Japan has suffered her first great loss in the war. On May 15th, during a dense fog, the cruisers Kasuga and Yoshino collided. The Yoshino sank almost immediately, only 90 being saved out of the 300 men who were on board. Upon the same morning, the Hatsuse, one of the finest vessels in the Japanese navy, while cruising off Port Arthur, struck a mine. She signalled for help, then, almost immediately struck another mine, and sank in half an hour, 440 out of her total crew of 740 being drowned. The combined losses of the Yoshino and Hatsuse thus equal the loss on the Russian cruiser Petrovalousk. Navigation in the vicinity of Port Arthur every day becomes more dangerous,

as, so it is, now stated, the Russians are using Chinese junks to strew mines in the path of the Japanese vessels patrolling the coast. Upon land, two recent skirmishes have been reported. At Kinchow, thirty Russians were left dead on the field, and at Sanchusan, from forty to fifty. In the latter engagement the Japanese casualties amounted to five killed and eight wounded.

NOTES AND NEWS.

Navigation between Niagara Falls and Toronto was not open until May 16th.

Another oil well has been struck at Leamington, Ont., at a depth of 1,043 ft. A 6-inch stream spouted through the drills to a height of fifty feet.

Miss Wallace, a Peterborough, Ont., girl, has just had accepted by the authorities of Paris Salon, a representation in marble of Orpheus tuning his lyre.

At Philadelphia, recently, Mr. C. D. Warren, of Toronto, was elected president of the reorganized Lake Superior Company, which will reopen the works at the Sault.

The first Rhodes scholarship to be held by an Ontario man has been awarded to Mr. Ernest Riddell Patterson, B. A., of Toronto. Mr. Patterson will go to Oxford in the autumn.

Sixteen thousand emigrants have sailed from British ports already this year, this number being 1,000 more than during all of 1903. All available steamer room has been booked for several months.

Nova Scotia has now a total of twenty-three model or illustration orchards, as they are sometimes called, under cultivation. This work is under the capable supervision of Prof. F. C. Sears, Principal of the School of Horticulture.

It is stated that fully thirty per cent. of the bee colonies in Ontario have been killed by the severe winter. In Quebec the loss was still greater, while in the Eastern States fully eighty per cent. of the hives were lost. This looks as though honey, during the coming season, will be a somewhat scarce commodity.

The steamers, Barcelona, from Hamburg, and Numidian, from Glasgow, arrived at Halifax on May 17th, bringing with them 1,322 passengers and emigrants. Those on the Numidian, a number of whom were bound for points in the U. S., were all Scotch; those on the Barcelona were all Austrians, bound for Winnipeg and the Territories.

Preliminary steps have been taken in New York for building a ship to be propelled by the new "multiple electric propeller," which, it is asserted by its inventor, Mr. Richard Painton, will enable vessels to cross the Atlantic in three days. The vessel will be 600 feet in length, and will cost \$2,000,000. Mr. Painter asserts that the use of electricity as a propelling agent will reduce the cost of coal \$9,000 per trip.

At the last annual meeting of the Canadian Forestry Association, a resolution was adopted, in view of the construction of the Transcontinental and other railways, to call the attention of the Dominion and Provincial Governments to the likelihood of destructive forest fires occurring during the carrying on of the work, and recommending the advisability of enforcing strict regulations with a view to preventing such fires. What rigid supervision can do was exemplified in the building of the railway to Lake Temiscaming, through pine forest, to which practically no damage was done, and it is felt that a similar policy in regard to further railway construction will be attended with similar results.

The supply of milk throughout the Province of Ontario is showing a serious falling off, and the cheese factories are suffering in consequence, is the gist of numerous reports which have been received by G. A. Putnam, Superintendent of Farmers' Institutes, from the cheese factory inspectors. The decrease in the milk supply of the factories is attributed to several causes: first, the low price of cheese; second, insufficient food for the cows, on account of the late spring; and third, the poor condition of the cows, owing to the long winter. Mr. Putnam added that the prospects were good for a large supply later in the season. The Inspectors report that a great many improvements are being made to the factories this year.

It is somewhat interesting to note that the present area of forest reserves in Ontario amounts to nearly 6,000,000 acres, whereas less than ten years ago the total area was only 80,000 acres. This surprising increase reflects great credit upon the Provincial Legislature, of which both sides have been given continuous approval to every step which has been taken for the advancement of provincial forestry. The land chosen has been invariably that unsuitable for agricultural purposes. Mr. Southworth, Director of Forestry and Colonization, recently stated his opinion, that if the present policy is continued, Ontario, before long, will not have to take second place to any country in the world, in the matter of forest wealth.

The prevalence of cold waves during the present season, is, as usual, recalling the phenomenal cold of other years. The summer of 1816 is one of the coldest on record. In New Hampshire, during that year, snow fell at some time during every month in the year ex-

cept August. On May 15th, also in N. H., newly-plowed land froze to a depth of six inches, and in Massachusetts on June 18th, enough snow fell to make good sleighing. The unusual cold was marked throughout all Canada and the United States. It was attributed to sun-spots, which in that year became so large that they could be seen with the naked eye. People became afraid that, the climate had changed. As it had not done so, however, hope may still go on past the phenomenal winter and spring of 1904.

A special despatch to the Globe from Vancouver, says: A number of Ontario financiers, having secured the contract for supplying millions of ties, to be used in connection with the Panama Canal works, are making arrangements to erect the largest lumber mill on the Pacific coast, in Vancouver. The cost, when completed, will be over a million dollars. Neither Canadian nor local trade will be touched, the whole output being devoted to supplying the demands of the foreign market. It is expected the immense order for timber given for the Panama Canal will place the new firm solidly on their feet, so that they will soon become one of the largest concerns in the lumber world. The promoters have been working quietly, and have already secured hundreds of thousands of acres of timber limits. No names are given out officially."

St. Louis Live-stock Exhibit.

To the Editor "Farmer's Advocate":

I have read Mr. Smith's letter on above subject with some interest, endorsing the action of the Live-stock Commissioner, and the resolve "Not to kiss the feet of the man who had insulted them, and pick up the crumbs he might throw to them."

But what has the whitewashing of the Commissioner to do with those who, with the understanding that there would be a Canadian exhibit of live stock, had prepared for such, and now are left wondering? Is the upsetting of the Commissioner's dignity when before the St. Louis Board of more importance than the interests of the live-stock breeders of Canada? It seems so. What we breeders want to know is this: The Live-stock Commissioner shifts the onus upon the President of the Shorthorn Breeders' Association, and Mr. Robert Miller, by stating the communication he had received through them, made him call the meeting in Toronto, and that their communications came as a bolt from the blue sky to himself and the Minister, hence the meeting at Toronto. What the breeders of cattle, horses, sheep and swine want to know is the nature of the bolt. Mr. Linton, as President, who officially sent the lightning stroke, must make his communication public. Also, Mr. R. Miller, who incidentally clinched the electricity, as Vice, must be heard from. We breeders want to know, and will know, upon what grounds our officials, who never show, or expect to show, can sulk and damn those who do or want to do so. Canada has been at the expense of putting up a building; exhibitors are making a display; and yet, because one or two individuals are disgruntled, Canada's greatest exhibit, her live stock, must be absent. I am glad to note that Mr. Smith remarks that Mr. Coburn's reception had no bearing on the matter, as their decision had already been made.

RICHARD GIBSON.

German Implement Trade.

The German market, which only four years ago purchased nearly three million dollars' worth of American agricultural implements in the twelve months, has steadily diminished its imports from the United States. Last year only shows a trade worth little more than half that of 1900. Germany was, only two or three years ago, one of the very best continental markets for American farm implements. Industry in that country has of late been passing through bad times; but the agriculturists have been the least to suffer, the depressions having been more industrial than agricultural. The bulk of foreign machinery in use at the agricultural colleges in Germany is imported from Canada and the United States.

Germany began to manufacture farm machinery about a quarter of a century ago. It has since then made steady progress, although it cannot compete successfully in every branch of the industry against foreign imports. Nine firms in the United States, two in Canada, and four in Britain have depots and agents in Germany, and they do a considerable amount of business. But, with the sole exception of mowing machines, the import of foreign machinery seems to be gradually but certainly diminishing.—[Farm Implement News.

Forthcoming Stock Sales.

June 1st.—Shorthorns: John Kelly and Jas. K. Campbell, at Shakespeare, Ont.

June 15th.—Imported Yorkshires: D. C. Flatt & Son, at Hamilton.

June 28th.—Shorthorns: W. C. Edwards and others, combination sale, at Hamilton, Ont.

Will Visit Europe.

Hon. John Dryden, Minister of Agriculture for Ontario, and Prof. G. E. Day, of the Ontario Agricultural College, sail on June 10th and June 3rd, respectively, for Great Britain, where they will investigate agricultural conditions. They will probably extend their trip to Denmark, in order to investigate the bacon industry, which, it has been stated, threatens to become a keen competitor of Canada in the British markets.

In Stock-
stock-
offici
been
of the
success
a joint
18th,
Trade,
Townsh
F. W.
Hon
tives t
Sale m
was an
fair wo
amount
building
cessful
partly
College
with t
sympat
dian d
To aid
junct
tawa.
plained
tendere

Mr.
perimen
his evic
House
said, m
sive on
required
that ff
gave sa
St. La
silos be
should l
walls p
perfectly
for \$1.0
farmers
cost for
that clo
the form
ciple th
a farme
it woul
timothy.
Givin
tests of
cost \$3
for the
of land,
corn cos

The
port in
Eight st
steer co
100 pou
from the
each of
\$6.95 e
was \$5.
class.
mals w
years a
was fee
to the
\$15.00
the sam
of the
Evid
fed at a
flesh; t
beef in
An
a pound
winter
tario h
test.

The
rigation
last few
foothills
timony

The
been arr
Toronto
ing to
exhibit
Ottawa
Western
Septemb
Fair.
day of t
favorab
trip on
long on
gold me
prize-list

The Winter Fair at Guelph.

In conjunction with the Toronto Junction Stock-yards project, and the proposed new live-stock pavilion there, with which the names of some officials were connected, disquieting rumors have been abroad for some time as to the future home of the Ontario Winter Fair, which has been so successfully conducted at Guelph. In consequence, a joint conference was held in that city on May 18th, between representatives of the Board of Trade, the Fat-stock Club, City, County and Township Councils, and Hon. John Dryden and F. W. Hodson, the Live-stock Commissioner.

Hon. Mr. Dryden assured the Guelph representatives that the impression that the Winter Fair and Sale might be removed was entirely wrong. There was an agreement with the Government that the fair would be maintained in Guelph, where a large amount of money had been expended upon the buildings. Guelph was better adapted for a successful educational event, like the Winter Fair, partly because of the location of the Agricultural College. Mr. Dryden said he was not connected with the Union Stock-yards project, though he sympathized with the idea of developing a Canadian dressed-meat trade in connection therewith. To aid the eastern part of the Province, an adjunct of the Winter Fair was conducted at Ottawa. The Live-stock Commissioner having explained his position, a resolution of thanks was tendered for the satisfactory explanations.

News from the Capital.

Mr. J. H. Grisdale, Agriculturist at the Central Experimental Farm, gave special attention to ensilage in his evidence before the Agriculture Committee of the House of Commons, the present session. Roots, he said, made the best feed, but they were more expensive on account of the larger amount of manual labor required in their cultivation. The Agriculturist said that fifteen pounds of ensilage a day, fed to horses, gave satisfactory results. In Quebec, and along the St. Lawrence in Ontario, farmers were abandoning silos because they had not properly built them. Silos should be round, with an outlet at the bottom, and the walls perfectly vertical. The silo should be high and perfectly air-tight. A stave silo, which can be built for \$1.00 or \$1.50 per ton capacity, was best for farmers of moderate means. A cement silo would cost from \$2.00 to \$4.00 a ton. Mr. Grisdale said that clover hay was better fodder than timothy when the former is well saved. This was on the same principle that clover pasture was better than timothy. If a farmer were not depending on the markets for profit, it would pay him to grow clover in preference to timothy.

Giving some comparative figures, derived from tests of the past season, Mr. Grisdale explained that it cost \$33.00 to produce an acre of roots, and \$24.00 for the same area of corn. These sums paid for rent of land, labor, manure and seed. On an average, corn cost 50 cents a ton more than roots.

STERE-FEEDING TEST.

The recent tests in feeding steers resulted in a report in favor of letting the beasts run loose in pens. Eight steers were fed in this way for 129 days. Each steer cost 11.9 cents a day, and the cost of putting on 100 pounds of beef was \$5.22. There was a profit from the steers of \$7.86 per head. The profit from each of nine steers, fed tied, for the same period, was \$6.95 each. The average cost of 100 pounds of beef was \$5.59, which was 37 cents more than in the other class. The stock were grade Shorthorns, and the animals were of a uniform class. An Experiment three years ago, showed that the most economical method was feeding the animals tied. A summary statement to the effect that matured steers were fed loose at \$15.00 per head for 129 days; and tied, \$15.50 for the same time. The labor also cost more in the case of the tied animals.

Evidence was given that three-year-old steers were fed at a cost of \$5.22 per hundred pounds for added flesh; two-year-olds \$4.30, and yearlings, \$4.50. The beef in each case was sold at \$7.90 per cwt.

An experiment demonstrated that it cost two cents a pound more to fat pigs outside, in cabins, during winter, than in warm houses. Many farmers in Ontario had tried the former method, which led to the test.

EVIDENCE RE IRRIGATION.

The Committee will hear evidence this year on irrigation in the West. A large sum has been spent the last few years on artificial watering of lands at the foothills of the Rockies. Heretofore, no formal testimony has been given Parliament.

DATES OF CENTRAL FAIR.

The dates of the Central Canada Exhibition have been arranged this year so that stockmen may show at Toronto and London without being debarred from coming to Ottawa. It is the first time that these three exhibitions have formed a circuit. On this account, Ottawa expects a record exhibit of live stock from Western Ontario. The Central Canada Fair opens September 16th, the second last day of the London Fair. The London Exhibition begins the second last day of that at Toronto. This arrangement is specially favorable to Western Ontario people, because the last trip on which the railways carry stock free will be the long one, from Ottawa home. There is a special gold medal for every breed of stock in the Ottawa prize-list. The gifts of special prizes is the largest

on record. A staff is employed fencing the grounds, and preparing for taking in the new poultry building, which is included in the winter fair building. The park will be cut off, so that it will not be closed to the public in the summer.

FRUIT IMPORTERS MET.

Six members of the staff of the Dominion Fruit Inspectors, headed by Mr. A. McNeill, visited the Experimental Farm on May 17th, 18th, 19th and 20th, and conducted meetings in conjunction with Dr. Fletcher, Mr. Shutt and Mr. Macoun of the Farm. Hon. Sydney Fisher and Prof. Robertson were present the opening day, and gave addresses. The Inspectors are traveling to spread knowledge as to orchard management. Several local fruit men attended the meetings at the Farm. The subjects taken up were: "Soil Treatment," by Mr. Shutt; "Orchard Insects," by Dr. Fletcher; "Pruning," by Mr. McNeill, and "Grafting and Spraying," by Mr. F. L. Dery.

Mr. Jones' Holstein Sale.

The auction sale of registered Holsteins held by D. Jones, Jr., Vtla Nova, Ont., on May 3rd, was a grand success in every way. Many farmers in the neighborhood had started seeding, consequently the home crowd was not as large as it would have been, but many buyers from a distance were present. As the day was fine, and the cattle in the pink of condition, the bidding was brisk, and good prices were realized. The bull, Prince Yonintje Clothilde De Kol which headed the herd, was purchased by Thos. B. Carlaw & Son, of Warkworth, Ont., at the handsome figure of \$280. Considering his breeding and individual merit, Mr. Carlaw has secured one of the best sires in Canada. The young calves sired by this bull were models in every respect. The average price for fifteen cows and four heifers, coming two years old, was \$110 each. Below is the list of females sold. The bulls were, with the exception of the herd-header, very young, from three days to ten months, and only the latter reached the \$100 mark.

Queen De Kol, 10 years; F. M. Carpenter, Stony Creek	\$125
Maxie, 12 years; J. H. Taylor, Scotland, Ont.	80
Cornelia Artis (3 teated), 11 years; E. Woodley, Waterford	60
Helbon Gentle, 10 years; E. Laidlaw, Alymer	100
Ayde Wayne, 7 years; E. B. Varey, Woodstock	100
Roxie Bess, 7 years; Geo. Rice, Tilsonburg	125
Gentle 2nd, 5 years; P. D. Ede, Oxford Centre	180
Nierop Netherland's Clara, 5 years; P. D. Ede	140
Queen De Kol 2nd's Pledge, 4 years G. Millen, Fruitland	145
Netherland Bess, 4 years; E. B. Varey, Woodstock	105
Helbon Blossom 2nd, 3 years; W. Stillman, Campbellford	180
American Girl, 2 years; R. Connolly, Ingersoll	95
Edna Wallace, 2 years; F. Leeson, Alymer	85
Bessie Gretqui, 3 years; R. Kelly, Hagersville	105
Flora Netherland, 3 years; E. Laidlaw, Alymer	115
Daisy Texal 4th's Roxie, coming 2 years; J. H. Taylor, Scotland, Ont.	105
Bessie De Kol Dorrien, coming two years; R. Connolly, Ingersoll	115
Gentle De Kol, coming 2 years; F. M. Carpenter, Stony Creek	125
Maxie De Kol, coming 2 years; J. H. Taylor	100
Bessie Spink's Princess Clothilde De Kol, 1 year; T. W. McQueen, Tilsonburg	75
Gentle Clothilde, 10 months; M. Richardson & Son, Caledonia	90
Aggie Clothilde De Kol, 1 year; C. E. Smith, Scotland, Ont.	70
Villa Nova's Jewel, 1 year; R. J. Bowman, Springvale	42
Clothilde Pledge De Kol, 3 mos.; M. Richardson & Son, Caledonia	80
Gentle 2nd's Beauty, 3 weeks; P. D. Ede, Oxford Centre	40
Daisy Texal De Kol, 3 weeks; M. Richardson & Son, Caledonia	48
Blossom De Kol, 1 week; L. O. Nelles, Boston	81
Bessie Wayne's Buttercup, 1 month; T. W. McQueen, Tilsonburg	85

Prince Edward Co. Notes.

Spring work was not generally begun until May 2nd. Since then it has gone on continually, and the bulk of seeding will be finished by the 20th, if we are not interrupted by rain. The soil is working up well, and farmers are having no trouble in preparing a good seed-bed. Fall wheat wintered well, and there was every prospect of a good crop, but the cold snap about the middle of April damaged it more or less the county over, and practically ruined it in some sections. It is doubtful if it averages half a crop for the whole county. Clover suffered in the same manner, but in a much less degree. Stock wintered only fairly well on the whole, the cold weather being probably the reason. Prices are, on the whole, fair. Horses are worth from \$100 to \$200 each; milk cows, from \$40 to \$50, and sheep only about \$5. Hogs are on the rise again, local quotations being \$4.60 per cwt. About two weeks ago our largest drover shipped seven carloads to Montreal, and paid the farmers \$6,000 for the same. This is evidence that Prince Edward produces a great amount of pork. Eggs are steady at 18c. per dozen. Dressed poultry is sky-high, chickens being worth from 80c. to \$1.00 per pair. Butter sells at 18c. to 20c. per pound, and potatoes at about 90c. per bag.

A Budget of British News.

(Special correspondence.)

The weather continues the very best for all kinds of farm work, and although the season is decidedly late, there is now by no means a bad lookout for the general well-doing either of stock or crop. The extensive breadths of bare fallows that were in evidence a month ago, are now bright green with the delicate braird of barley and oats. Clover and grass layers, as also sanfoin and tares, are improving fast, and their progress has been especially noticeable this week. Grass is now becoming abundant, and cattle are mostly turned out. The increasing popularity of potato cultivation is a feature of the times. While farmers, as a rule, have been groaning over low prices and bad returns, potato-growers had, in many cases, been growing rich. Last season was undoubtedly a trying one, and in many cases, most disastrous. But there was a silver, or golden, lining to the cloud, in the shape of higher prices than had been seen for years.

THE WHEAT OUTLOOK.

In regard to the condition of the autumn-sown wheat, very few reports are favorable, while the area, notwithstanding a probable increase in March-sown wheat, is certain to be very small. It is computed that the home-grown crop will not be more than five million quarters, and as our consumption, including seed and other requirements, is now not less than thirty-two million quarters, we must look forward to the requirements from abroad next season reaching twenty-seven million quarters.

TARIFF COMMISSION.

The Chamberlain Tariff Commission is still pursuing its investigations, and some important evidence has been before the Agricultural section in the shape of "Canadian Wheat Resources," from statistics prepared by Mr. C. N. Bell, secretary of the Winnipeg Grain Exchange. The following statement, which relates to the harvesting of the wheat crop of 1902, shows in Mr. Bell's words, that "Winnipeg receipts of wheat for the past year greatly exceed those of Chicago, or of Duluth-Superior":

Winnipeg	51,892,000 bush.
Duluth-Superior	42,406,928 "
Chicago	37,940,958 "

Mr. Bell goes on to remark: "It will now be in order, as far as relates to the grain arrivals, at least, to abandon the trite saying that Winnipeg will some day be a second Chicago, for Chicago makes a poor showing as compared with the great wheat-handling center." The report continues: "The wheat acreage in Manitoba alone in 1902 was 2,040,000 acres, and that acreage yielded 58,000,000 bushels of wheat. Four times that acreage, at the Manitoba rate of 1902 per acre, would yield all that Great Britain requires, with 20,000,000 bushels over; and Manitoba contains 64,000,000 acres of land surface from which to select the 8,000,000 acres required."

The Commission also have before it a host of information compiled by Dr. Wm. Saunders, Director of the Dominion Experimental Farms, but space forbids me giving any further extracts.

The wheat market in London during the past weeks has displayed considerable weakness under a certain pressure to sell cargoes, and in these a decline took place. The pressure, however, having to a certain extent been removed, the market has recovered somewhat and shows certainly more stability at the decline.

CATTLE TRADE.

We are now looking forward to some good consignments of Canadian cattle. The trade at the foreign animals wharf at Deptford has fluctuated a good deal lately.

WAXED CHEESE NOT LIKED.

Some time ago the Dominion Department of Agriculture introduced into our markets cheese which had been coated with a thin covering of wax. From special enquiries made, I find that the innovation is not generally liked by our traders. They complain that retailers will not buy it unless they have some advantage given them in price. They prefer the "old crusty" look of cheese, and, moreover, they say, when the waxed is cut up, it does not keep as well as the other. The cheese trade is very flat at present, and one large dealer in Canadian produce, whom I was interviewing yesterday, said, re waxing: "Considering our losses on cheese at present, tell your people to coat them with gold leaf instead of wax, which is no good, and retailers object to paying the price of cheese for wax." Some of the cheese sent here from the States, is much more heavily waxed than Canadian, and although it certainly has a clean appearance, it is overdone. It looks what we call "faked," and that's enough to spoil the sale.

BACON.

The enquiry for Canadian cures has been somewhat slack, the dealers not taking on very strongly with this kind of meat just now, and as no pinch in supplies is experienced, but rather the reverse, the sales affected have been without any improvement in values.

Hams are selling pretty well at the very moderate prices now ruling for all descriptions, supplies being ample for most requirements.

A New Contagious Disease of Horses.

The following is a copy of the new order issued by the Board of Agriculture of England:

(1) There has recently been introduced into Great Britain a contagious disease affecting horses, known as epizootic lymphangitis. It has for many years existed in Italy, and in several other countries in Europe; it is also prevalent in India, and in some parts of South Africa.

(2) The characteristic symptom of the disease consists of a swollen condition of the lymphatics of the skin on the inside of the hind legs, but the same condition may also be present on the side of the neck, or on the body. In most cases small nodules, varying in size from a pea to a hazelnut, will be found, which eventually burst and discharge a small quantity of purulent material, containing an organism—the cryptococcus—which is the cause of the disease.

(3) The cryptococcus, when microscopically examined, presents itself as an ovoid body, with a distinct double-contoured envelope and highly refractile contents. Owing to its considerable size, and its characteristic form, it is readily detected under a magnification of 400, and to this end it is not necessary to use any stain. The organism is easily transferred from the wound of a diseased horse to a wound on another horse not affected with this disease, and the most common means of such transfer is no doubt by the agency of sponges, rubbers, brushes, or other stable utensils which have been used about diseased horses, or possibly by the hands of the attendant.

(4) From the clinical symptoms, epizootic lymphangitis may easily be mistaken for the farcy form of glanders; it can, however, be differentiated from that disease by a microscopical examination of some of the discharge from one of the ulcers, when the cryptococcus which is the cause of the disease will be found; or by an application of the mallein test, to which epizootic lymphangitis does not respond.

(5) As the germs of the disease have been known to linger about a stable for a very considerable period, the owner should afford every facility for carrying out a rigid system of cleansing and disinfection in respect of the whole of the stable or other place in which an affected horse has been kept.

Wallaceburg Sugar-beet Prospect.

The Wallaceburg Sugar Company, up to date, have about 4,800 acres under contract to grow beets, which will be cultivated by 1,186 growers. The condition of the soil this spring is most excellent, and seeding is being carried on in a most satisfactory manner, so that the prospects for the crop this year are much better than at any time since the Company began the growing of sugar beets in Canada. Mr. D. A. Gordon, the manager, states: "We are pleased to report that not only the farmers, but consumers generally, are beginning to recognize the fact that beet and cane sugar are identical. Sugar sales are excellent, and the only cause for regret that we have, is that we have not a much larger quantity to offer."

Ontario Agricultural College Staff.

The Hon. John Dryden, Ontario Minister of Agriculture, has approved of a rearrangement of the O. A. C. staff. Hereafter there will be a professor of field husbandry and a professor of animal husbandry. Mr. G. E. Day, who is now the professor of agriculture and farm superintendent, will be relieved of the latter portion of his responsibilities, and will be placed in charge of the department of animal husbandry. Mr. C. A. Zavitz, now director of field experiments, will be promoted to the position of professor of field husbandry.

Guelph, Ont., Forestry Plantation.

It is expected by 1906 that some 200,000 forest trees will be ready for distribution to Ontario farmers from the Agricultural College at Guelph. During the past fortnight there have been transplanted about 50,000 two-year-old evergreens—pine, Norway spruce, larch, etc.—and there is sown enough seed to grow 30,000 more. Enough acorns were gathered for at least 100,000 red and white oak trees, a variety of commercial timber which cannot be very well transplanted, but which grows somewhat rapidly from seed. Besides these there are several other varieties, such as maple, beech, birch and ash.

Canadian Papers in Britain.

Mr. O. B. Fysh, of Moose Jaw, who was commissioned by the Canadian Government to go to England to secure information regarding immigration to Canada, believes that in 1904 more immigrants will come from England than in any previous year. He advocates the placing of good Canadian papers in all the libraries of England, as the best means of advertising the country. He had found that every Englishman was ready to listen to facts about Canada when they were given officially. On several occasions, circulars had misled intending immigrants. In the ship in which Mr. Fysh sailed back to Canada there were about 1,700 immigrants, most of them English, and many of them prosperous farmers with money.

South Perth.

The seedtime here has been dry; the rapid growth which followed the long winter was thus soon checked, and prospects for awhile seemed rather backward; but copious rains have again revived the face of nature, giving a good start for both grain and grass seeds. Stock appear to have been turned out in a fairly thrifty condition for such a long, hard winter. Some are making the mistake of turning them on the grass too early, which very effectually checks its growth and impoverishes the animals at a time later on when they have lost all taste for hay or other cured fodder. This is a serious mistake with those who are seeding down heavily and going into the grazing business, as many are now evidently doing, since the scarcity of labor, which prohibits the cultivation of large areas of land. Hitherto we have thought it unwise to report as to the wintering of bees, as it is the experience of leading apiarists that backward weather in spring is almost as trying as the winter itself, and it is not till settled warm weather that the owner can safely count his losses; and with most of them this year we fear they have been heavy. From all we can learn we think that a conservative estimate would put the loss at from one-quarter to one-third.

The factory season opened promptly at the first of the month, but the supply of milk was meagre, owing, we presume, to the late spring, and partly to the low price of cheese and poor prospects for the future. The St. Mary's Creamery Company have decided to go back to the cream-gathering system, as it was found impossible to stem the tide in favor of hand separators; consequently, some of the separator stations were closed, and the patrons persuaded en masse to purchase the hand machine, which, unless they tire turning it, will probably remain in favor, as the fresh skimmed milk is supposed to be much better for the calves, and the owner knows what amount of cream he is selling when he skims it himself.

J. H. B.

The King's Plate Race.

The race for the King's Plate, the oldest and most classical race in America, was won on Saturday last by Mr. N. Dymont, of Barrie, with the three-year-old Sapper, who covered the mile and a quarter in 2.12, beating the former record of 2.13. Every year since 1860 the race for our Sovereign's fifty guineas, with an added purse, has been run under the auspices of the Ontario Jockey Club. The event has now become a fixture for the first Saturday before Empire day, on the Woodbine track, Toronto. This year there were fourteen horses to start, representing eight stables. Only Province-bred horses, three years old and upwards, that have never won a race, that have never left Canada, and have never been out of the Province for a month or more, are eligible to compete in this classic event. The second horse this year was Nimble Dick, owned by Mr. Wm. Hendrie, of Hamilton, and third was the public favorite, War Whoop, entered by Macenzie Bros., the family of railway fame. The value of the race is the fifty guineas, with \$1,300, for first; \$450 for second, and \$250 for third. The length of the course is a mile and a quarter.

A Child's Heart.

A curious-looking old woman, having a bundle in her hand, and walking with painful effort, sat down on a curbstone to rest. A group of three little ones, the oldest about nine, stopped in front of the old woman, saying never a word, but watching her face. She smiled. Suddenly the smile faded, and a corner of the old calico apron went up to wipe away a tear. Then the oldest child asked:

"Are you sorry because you have not got any children?"

"I—I had children once, but they are all dead," whispered the woman, a sob in her throat.

"I am sorry," said the little girl, as her chin quivered. "I'd give you one of my little brothers, but I haven't got but two, and I don't believe I'd like to spare one."

"God bless you, child—bless you forever," sobbed the old woman, and for a minute her face was buried in her apron.

"But I'll tell you what I'll do," seriously continued the child. "You may kiss us all once, and if little Ben isn't afraid you may kiss him four times, for he's just as sweet as candy."

Pedestrians who saw three well-dressed children put their arms around that strange old woman's neck and kiss her were greatly puzzled. They didn't know the hearts of children.—Pansy.

To clean suede gloves, place them on the hands, then rub thoroughly with fine oatmeal, renewing the meal several times. Finally brush the meal from the gloves with a soft brush.

The Preacher at the Pump.

Many years ago a certain minister was going on Sunday morning to his Sunday School. He walked through a number of streets, and, as he turned a corner, he saw, assembled round a pump, a party of little boys playing marbles. On seeing him approach they began to pick up their marbles and run away as fast as they could. One little fellow did not see him so soon as the rest, and before he could succeed in gathering up his marbles, the minister had come to him and placed his hand upon his shoulder. They were face to face, the minister of God and the poor little ragged boy who had been caught in the act of playing marbles on Sunday morning. And how did the minister deal with the boy? That is what I want you to notice.

He might have said to him, "What are you doing there? You are breaking the Sabbath. Don't you deserve to be punished?"

But he did nothing of the kind. He simply said, "Have you found all your marbles?"

"No," said the boy, "I haven't."

"Then," said the minister, "I'll help you." Whereupon he stooped down, and began to look for the marbles; and as he did so he remarked, "I liked to play marbles when I was a little boy, and I think I can beat you, but," he added, "I never played marbles on Sunday."

The little boy's attention was now arrested. He liked his friend's face, and began to wonder who he was. The minister said:

"I am going to a place where I think you would like to be; will you come with me?"

Said the boy, "Where do you live?"

"In such a place," was the answer.

"Why, that's the minister's house!" exclaimed the boy, as if he did not suppose that a kind man and a minister of the Gospel could be the same person.

"Yes," said the man, "I am the minister myself, and if you'll come with me I think I can do you some good."

Said the boy, "My hands are dirty; I can't go."

"But," said the minister, "here's a pump; why not wash them?"

Said the boy, "I'm so little I can't wash and pump at the same time."

"Well," said the minister, "if you'll wash, I'll pump."

He at once set to work, and pumped and pumped, and the boy washed his hands and face until they were quite clean.

Said the boy, "My hands are wringing wet, and I don't know how to dry 'em."

The minister pulled out a clean handkerchief, and offered it to the boy.

Said the boy, "But it is clean."

"Yes," was the reply, "but it was made to be dirtied."

The boy dried his hands and face with the handkerchief, and then accompanied the minister to the door of the Sunday School.

Twenty years after, the minister was walking in a street of a large city, when a tall man tapped him on the shoulder, and, looking into his face, said, "You don't remember me?"

"No," said the minister, "I don't."

"Do you remember, twenty years ago, finding a little boy playing marbles near a pump? Do you remember that boy's hands being too dirty to go to school, and pumping for him, and speaking kindly to him, and taking him to school?"

"Oh!" said the minister, "I do remember."

"Sir," said the gentleman, "I was that boy. I rose in business and became a leading man. I have attained a position in society, and on seeing you to-day in the street I felt bound to come to you, and say that it is to your kindness and wisdom and Christian discretion—to your having dealt with me persuasively—that I owe, under God, all that I have attained and what I am at the present day."

What Boys Should Know.

A philosopher has said that true education of boys is to "teach them what they ought to know when they become men."

1. To be true and to be genuine. No education is worth anything that does not include this. A man would better not know how to read, and be true and genuine in action, rather than be learned in all the sciences and in all languages and be at the same time false in heart and counterfeit in life. Above all things, teach the boys that truth is more than riches, power or possessions.

2. To be pure in thought, language and life—pure in mind and body.

3. To be unselfish. To care for the feelings and comforts of others. To be generous, noble and manly. This will include a genuine reverence for the aged and for things sacred.

4. To be self-reliant and self-helpful even from childhood. To be industrious always, and self-supporting at the earliest possible age. Teach them that all honest work is honorable, that an idle life of dependence on others is disgraceful.

When a boy has learned these things, when he has made these ideas part of him, however poor or however rich, he has learned the most important things he ought to know.

Treatment of Wounds and Cuts.

Severe cuts and wounds need most careful treatment, or blood-poisoning may follow. Careful dressing of wounds will often prevent very bad scars.

MARKETS.

The past week has seen improvement in export and butchers' cattle, and in the cheese prices. The requirements to fill space was probably responsible for much of the strength, as prices settled down again after the first flush.

LIVE STOCK.

Export Cattle.—The demand for cattle is brisk, and the quality of the cattle is generally good. All lines were cleared early.

Butchers' Cattle.—Buyers were in need of cattle, and the best steers and heifers are quoted at \$4.65 to \$4.75 per cwt.

Stockers and Feeders.—The movement in these lines is brisk, although not many cattle in either classes are coming forward.

Milch Cows.—The demand for good cows is fair, at \$30 to \$60 each.

Calves.—There are too many of inferior quality coming forward. The market is easy at 3c. to 5c. per lb.

Sheep and Lambs.—Prices have a firm inclination. Export ewes are steady at \$4.00 to \$4.50; grain-fed lambs at \$5.50 to \$5.75; and spring lambs at \$2.50 to \$5.50.

Hogs.—Selects, \$5.00; lights and fats, \$4.75.

GRAIN AND PRODUCE.

Wheat.—No. 2 white and red winter, 94c. to 95c., low freights; spring, 90c. to 91c. east; goose at 81c. to 82c. east; Manitoba, No. 1 northern, 92c., Georgian Bay ports; No. 2 northern, 85c.; No. 1 hard, nominal at 9c.

Millfeed.—Market is steady at \$17 to \$17.50; shorts, \$16; Manitoba bran in sacks, \$17; and shorts, \$19 here.

Barley.—No. 2, 42c., middle freights; No. 3 extra, 40c. to 40 1/2c.; No. 3, 38c. to 39c., middle freights.

Buckwheat.—No. 2, 49c. to 50c., east.

Rye.—57c. to 58c., outside. Corn.—No. 2 American yellow, 60c. on track at Toronto; No. 3 mixed, 58c. to 59c.

Oats.—No. 2 white, 31 1/2c. to 32c., west, and 32c. to 32 1/2c., middle freights; No. 1 white, 32 1/2c. to 34c., east, and No. 2, 33c., east.

Peas.—11c. to 62c. for No. 2, west or east. Baled Hay.—Car lots on track here, \$9 per ton.

Potatoes.—\$1.00 to \$1.05 for car lots on track here, and \$1.15 to \$1.20 for out-of-store stock.

Butter.—Creamery prints, 17c. to 18c.; dairy lb. rolls, good to choice, 11c. to 13c.; dairy large rolls, 11c. to 12c.

Cheese.—Large is now quoted at 8 1/2c., and twins at 8 1/2c.. Old large is unchanged at 9 1/2c.

Eggs.—Receipts are still rather light, and the market is unchanged at 15c. per dozen.

Retail Prices, Toronto Street Market.

Table with 2 columns: Item and Price. Includes Wheat, do red, do goose, do spring, Oats, Barley, Rye, Peas, Hay, No. 1 timothy, do, mixed or clover, Straw, sheaf, do loose, Dressed hogs, light, cwt., do, heavy, Butter, Eggs, new laid, Fall chickens, pair, do, per pound, Old hens, Turkeys, per pound, Apples, per barrel, Potatoes, per bag.

Cheese Markets.

Brockville, May 19.—All the cheese on offer sold for 8c. R. G. Murphy, who went to Montreal to interview the railways in reference to freight rates, reported that a rate of 15c. per hundred had been secured.

Tweed, May 19.—335 boxes of cheese were boarded; 245 sold at 7 1/2c., balance at 7 7/16c.

Kingston, May 19.—635 boxes were boarded; 495 colored, and 140 white. Bid 7 1/2c.

Madoc, May 19.—720 boxes offered. One hundred sold at 7 7/16c.; 260 at 7 1/2c.; 75 at 7 1/2c.; balance unsold.

Picton, May 19.—Thirteen factories boarded 860 boxes; 820 colored, 40 white. Highest bid, 7 1/2c. Eight hundred sold.

Varkleek Hill, May 19.—There were 847 boxes white and 193 boxes colored cheese boarded here to-night; 471 boxes were reported as being green for sales, so were withdrawn. The rest sold at 7 1/2c.

Napanee.—Three thousand one hundred and fifty-nine boxes of cheese boarded; sales, 564 white and 100 colored, at 7 1/2c.

Perth.—One hundred and sixty boxes sold at 8c. Ottawa.—There were 474 boxes boarded on the Ottawa Cheese Board, of which 81 were colored. The highest bid was 7 1/2c., at which nearly all were sold.

Winchester.—Two hundred and fifty-seven white and 73 colored were registered. Price bid, 7 1/2c.; none sold.

Alexandria.—Seven hundred and seventy-one cheese were boarded, 627 white and 144 colored; all sold for 7 1/2c.

Iroquois.—Six hundred and eighty-five colored cheese were boarded. Highest bid, 7 1/2c., which was refused. Most of the cheese were subsequently sold on curb at 7 1/2c.

Farnham, Que.—One hundred and twelve cheese were sold at 7 1/2c., and 150 butter at 15 1/2c.

Kemptville.—Eight hundred and eighty-seven boxes of cheese were boarded here yesterday. Nearly all sold at 8c., for both white and colored.

Belleville.—1,820 white and 285 colored cheese were offered. Sales, 810 at 8 1/2c.; 400 at 8 3/16c.; balance refused at 8 3/16c.

London.—Seven factories offered 680 boxes; sales, 250 at 8 1/2c.; 100 at 8 1/2c.

Montreal Markets.

Montreal.—The local demand for oats is fair. Quotations are generally 37 1/2c. to 38c. for No. 3, and 38 1/2c. to 39c. for No. 2. Peas are about steady at 7 1/2c. afloat, May; No. 2 barley, 50c., and No. 3, extra, 39c.; No. 2 rye, 62c.

Flour.—The market is firm. Manitoba patents, \$4.90 to \$4.95; strong bakers', \$4.60 to \$4.65; winter wheat patents, \$4.80 to \$5.10; straight rollers, \$4.65 to \$4.85; straight rollers, in bags, \$2.20 to \$2.30.

Feed.—The market is very quiet. Manitoba bran, in bags, \$19; shorts, \$21 per ton; Ontario bran, in bulk, \$18.50 to \$19; shorts, \$19.50 to \$20; mouille, \$26 to \$28 per ton, as to quality.

Hay.—No. 1, \$10.50 to \$11.50; No. 2, \$8.50 to \$9.50; clover, mixed, \$8 to \$8.50; clover, \$8 per ton, in car lots.

Beans.—Choice primes, \$1.45 per bushel; \$1.40 in car lots.

Hogs.—Fresh killed abattoir hogs, \$7.35 to \$7.50; live hogs, \$5.25 to \$5.50.

Eggs.—New-laid, 15c. to 15 1/2c. Butter.—New-made, 15c. to 16c.; Western dairy, 12c. to 13c.; rolls, 12c. to 13c.

Cheese.—New fodder, Ontario, 8 1/2c.; best Quebec, 7 1/2c. to 7 1/2c.

Buffalo Markets.

East Buffalo.—Cattle—Prime steers, \$5.15 to \$5.25; shipping, \$4.75 to \$5.10; butchers', \$4.35 to \$5.

Hogs—Heavy and mixed, \$5.15 to \$5.20; Yorkers, \$5.10 to \$5.20; pigs, \$5 to \$5.10.

Sheep and Lambs—Lambs, \$4.50 to \$7; one load, \$7.10; yearlings, \$6 to \$6.25; wethers, \$5.25 to \$5.65; ewes, \$5.00 to \$5.25; sheep, mixed, \$3.25 to \$5.50.

Chicago Markets.

Chicago.—Cattle—Good to prime steers, \$5.20 to \$5.70; poor to medium, \$4.25 to \$5.20; stockers and feeders, \$3.25 to \$4.60; Texas-fed steers, \$2 to \$4.60.

Hogs—Mixed and butchers', \$4.55 to \$4.83 1/2; good to choice, heavy, \$4.75 to \$4.87 1/2.

Sheep.—Good to choice wethers, \$4.65 to \$5.50; fair to choice, mixed, \$4.25 to \$4.75; clipped native lambs, \$4.50 to \$6.15.

Montreal Live Stock.

Montreal.—Cattle—Good cattle, 5 1/2c. per lb.; other, 3c. to 4 1/2c. per lb.; calves, 2c. to 5c. per lb. Shippers pay 4c. per lb. for good, large sheep; and the butchers pay 3 1/2c. to 4 1/2c. per lb. for the others; lambs, \$8 to \$5 each. Good lots of fat hogs bring 5 1/2c. to 5 1/2c. per lb.

British Cattle Market.

London.—Canadian cattle are steady at 11 1/2c. to 12 1/2c. per lb.; refrigerator beef, 9 1/2c. to 9 1/2c. per lb. Sheep firm, 13 1/2c. to 14 1/2c. per lb.; yearlings, 15c.

Wool.

Montreal.—Canadian fleece wool keeps firm, round lots of Ontario washed fleece being quoted at 19c. to 20c., and unwashed, 15c. to 16c.

ILLUSTRATIONS.

Table listing illustrations: Prof. W. J. Kennedy, Wildwood Brino, Collynie Conqueror, A Barked Tree Bridge Grafted, Hedge of Native White Spruce, Uncultivated Native White Spruce, EDITORIAL, Township vs. District Agricultural Society Grants, Agricultural Progress Illustrated, The Bacon Trade, HORSES, A Shire Champion, Diarrhoea in Foals, STOCK, Gait in Lambs, Letters from Prof. Kennedy, The Sow and Her Litter.

CONTENTS OF THIS ISSUE.

Table listing contents: Care of Calves, FARM, Building the Farmhouse, Problems of the Soil, The Opinion of a Canadian Senator, Potato Culture, Potato Cultivation and Spraying, From the Hired Man, Application of Farmyard Manure, In the Sugar-beet Field, A Negro Potato King, Plan of Farmhouse, 'The Yellow Peril', GARDEN AND ORCHARD, Squire Attwood's Bridge-grafting System, Defining Grades of Apples, Shading Small Fruits, Not a New Scale, Trees Should be Cultivated, The Wagner Apple for Export, APIARY, Getting Bees Off Combs, POULTRY, A Foster Mother, NOTES AND NEWS, St. Louis Live-stock Exhibit, German Implement Trade, Forthcoming Stock Sales, Will Visit Europe.

Table listing other contents: The Winter Fair at Guelph; News from the Capital; Mr. Jones' Holstein Sale; Prince Edward Co. Notes; A Budget of British News, A New Contagious Disease of Horses, Wallaceburg Sugar-beet Prospect; Ontario Agricultural College Staff; Guelph, Ont., Forestry Plantation; Canadian Papers in Britain; South Perth; The King's Plate Race; A Child's Heart; The Preacher at the Pump; What Boys Should Know, MARKETS, HOME MAGAZINE, QUESTIONS AND ANSWERS, Veterinary, Chorea; bog spavin; paraplegia; roaring; laryngitis, Miscellaneous, Rolling barley; cutting willows; diarrhoea in turkeys; line fencing-ditching; rights of way; windmills; trimming cedar hedge; destroying weeds-gapes; correct rule for measuring hay; making hair grow.



"Life has its May, and all is mirthful then;
The woods are vocal, and the flowers all odor;
Its very blast has mirth in 't—and the maidens,
The while they don their cloaks to screen their kirtles,
Laugh at the rain that wets them."
—Scott.

The Rebellion of M'lindy Ann.

THE STORY OF TWO EVENTFUL JOURNEYS FROM THE BARROWS' FARM TO THE CITY.

By Julia Truitt Bishop.

I.

When Eli Barrows was fairly set in at his work, he was an adept at hectoring; and it was his pleasure to hector on this occasion.

"Yes," he declared loftily to M'lindy Ann as he hitched up; "I've sold the hill place for three thousand dollars—three thousand—do ye take that in? I've got the whole pile in my satchel in there, an' I'm goin' to ketch the eight o'clock train for the city an' put it in bank. No, you can't go along. It's jest a matter of business, an' I can't tend to it myself, without the expense of two goin'. What do women know about business, any way? I reckon I know how this money's come—by good, hard ticks—an' I've been a good part of my life makin' it, so it stan's to reason I'd know how to take keer of it."

"I've worked pretty hard for it, myself," said Mrs. Barrows, meekly. She was a little woman with iron-gray hair, and her voice was soft and plaintive.

Eli laughed, throwing back his head.

"Well, I call that good!" he said jeeringly. "What does any woman know about work, I'd like to know? Always in the house, havin' an easy time, while men's out in the weather, toilin' for all they're worth. I b'lieve you'd complain if you was in Paradise, M'lindy Ann. You don't know when you're well off—a good home, an' little to do, an' a chance to go to church every other Sunday, besides the political speakin'!"

M'lindy Ann did not reply. She turned resignedly, went into the house and devoted herself to the "little to do" which Eli had mentioned. The broom was going swiftly and steadily when her lord came in and took up the leather satchel from the table.

"I'll be home in the mornin', on that early train," he said condescendingly, for he was always ready to forgive M'lindy Ann for her shortcomings, and took great credit to himself therefor, as being "easy to get along with." "You can wait breakfast—I'll be pretty hungry, I reckon."

"Buy a roun'-trip ticket, Eli," suggested M'lindy Ann mildly. But there could not have been any ulterior motive in her suggestion, for she added under his frowning glance: "They're cheaper in the long run, ye know."

"You talk like you travelled for a livin'," muttered Eli, as he went out to the buggy; and the broom swept steadily on, through one room and into another. One could live with M'lindy Ann in comparative comfort. She never talked back.

"I wisht ye had some new clothes, Eli," she called after him as he sat in the buggy, his knotty hands with the reins in them resting on the knees of his baggy old trousers.

"If my clothes suits me, there ain't nobody else got anything to do with 'em," he proclaimed testily. "If anybody wants to laugh at my clothes, let

'em laugh. They'd laugh on the other side o' their mouths if they knowed I had three thousan' dollars in that little ol' grip!"

And Eli drove away, well satisfied with himself. Reaching town, he stabled his horse near the station and bought a round-trip ticket. He was going to do that anyhow, of course. M'lindy's suggestion had nothing to do with it. Women were always giving advice where it wasn't really needed.

Eli's trip to the city was not dull nor monotonous in the least. It chanced that the car was somewhat crowded, and a gentleman asked permission to share his seat. He was a well-dressed gentleman, with kid gloves, yet he did not hesitate to speak pleasantly to a homely old farmer like Eli Barrows, commenting on the perfect winter weather, and asking after the last summer's crops with the greatest interest. It turned out that he was a member of the Missouri Legislature, on a little tour for health and pleasure, and Eli cheerfully gave him a great deal of information concerning the country in which he lived.

"You know, I always feel at home among the farmers," said the gentleman from Missouri. "Of course a large number of my constituents are farmers, and whenever I can get away I go down among them for an outing. Such good country fare as they give me! Such fried chicken—such butter and milk—there's nothing at the Waldorf-Astoria can compare with it!"

"I wisht ye'd call in on me as you're goin' back," said Eli, warmed to the heart. "We've got a pretty prosperous place—I'm jes' takin' three thousan' up to the city now, to put it in bank."

The member of the Missouri Legislature looked alarmed.

"Hush! Don't tell that to every one," he whispered. "Have you friends in the city? Do you know where you are going to put up?"

"I don't know yet," said Eli, visibly swelling; "but I reckon I'll strike one o' the big hotels for dinner—somethin' along about forty or fifty cents—I don't mind expenses, this trip. An' there can't no confidence man git the better o' me. I read the papers, I do—an' the first one that comes up an' calls me his long-lost uncle is goin' to git pasted over the head with this here umbrella!"

"But sometimes there are several of them, working together," said the gentleman from Missouri with deep concern.

"Let's see—a friend of mine gave me the address of a place he always goes to—if I haven't lost it—ah, here it is! He says it is a very plain place, but the meals are fine. Suppose we both go there; and I'll keep you in sight after dinner till you get your money banked. Really, Mr. Barrows, after the interesting conversation we have had this morning, I shall not feel safe until you get that money into the bank."

And they reached the city, and Eli Barrows, smiling and grip-laden, went off in a cab with the member of the Missouri Legislature, and was lost in the crowd.

II.

M'lindy Ann had heard the distant rumble of the early morning train as it crossed the valley at the back of the field and sped away to the little town, two miles further on. Breakfast was ready, and she was keeping it warm on the back of the stove.

The entire house was speckless and in its best Sunday clothes; and, strange to relate, so was M'lindy Ann. Her worn black dress was brushed to the last degree, and showed its threadbareness forlornly. Her shabby old bonnet was waiting her pleasure on the bedroom

mentel; her rusty black cape hung over a chair, ready for use at a moment's notice.

She was at the door, watching the bend of the road. Her face was colorless, even to the lips. Unconsciously her fingers plucked and twisted the ends of the ribbon bow at her throat into little black spirals. M'lindy Ann was plainly much disturbed.

When a little cloud of dust came crawling around the bend of the road, M'lindy Ann bestirred herself and set the breakfast on the table. Everything was ready when Eli stepped in at the door, and M'lindy Ann looked up, pretending not to notice that he was trembling from head to foot, and that he leaned against the door for support. What she really did notice was the other fact that his clothes were muddy, that his coat was torn, and that his hat had been crushed almost beyond recognition.

M'lindy Ann hastily set a dish down on the table.

"I see how it is," she said. "You've been run over by one o' them street cars, Eli. Which ones o' your bones is broke?"

Eli burst into futile tears, and sank into a chair.

"It's worse'n that, M'lindy Ann!" he sobbed, with his arms on the table among the dishes and his head on his arms. "I've been robbed an' drugged. I've lost the whole pile—an' it's my own tarnation fault! I was too pesky intimate with a stranger—but he said he was a member of the Missouri Legislature, an' how was I to s'pose he was lyin'? An' the game they showed me—I could 'a' beat it with one han' tied behind me. I seen my way clear to makin' another thousan' or so, to put in the bank along with the other; but they must 'a' put somethin' into the beer—I didn't drink more'n half a teacupful, M'lindy Ann—an' I couldn't move hand or foot when they went into the satchel an' took the whole pile. An' then they come back an' kicked me all aroun', an' tramped on my hat; an' when I woke up I was jes' in time to ketch the train back. I'm ruined, M'lindy Ann! The money I've worked so hard fur all my life—"

"I've worked pretty hard for it myself," said M'lindy Ann, drily.

She had made the same remark the morning before, but now there was a new quality in it. Eli groaned.

"If I had it back ag'in I'd give ye half of it, M'lindy," he said, sadly. "Ye ain't worked as hard as what I have, but maybe you're entitled to half—fur ye've kep' the house mighty nice; but it's all gone! What's the matter, M'lindy Ann? Where ye goin'? What ye all dressed up fur at this time o' the day?"

"As soon as breakfast's over, I'm goin' to start for the city," said M'lindy Ann, who was quietly drinking her coffee. She had laid her bonnet on a chair with the cape; and beside it was a bundle wrapped in paper.

"Goin' to the city?" gasped Eli in deep amazement.

"Yes—I'm goin' to the city to put some money in the bank," said M'lindy Ann, eating serenely, the while she kept a pair of dark eyes fastened on Eli's astounded visage. "I'm goin' to take three thousan' dollars with me—the three thousan' that I saved by takin' it out of your grip when you was goin' off, so bumptious an' so pleased with yourself!"

Eli's jaws dropped apart, and his hands hung limp at his sides. When he recovered himself, a small, iron-gray woman was tying her bonnet strings in a

neat bow under a determined chin, looking him calmly in the eyes the while.

"M'lindy Ann, you've got that money?" he cried in broken speech. "You'd taken it out before I lef' home? The man—the man from Missouri didn't get it?"

Eli Barrows, you went up to the city with a piece of wood in your satchel, wrapped up in newspaper," said M'lindy, hooking the old black cape under her chin. "I hope the man from Missouri felt that it done him good. Take keer of the place, Eli. See that the chickens has fresh water, an' don't forget to wind the clock, an' be shore to put the cat out of the house every night. I'd tell ye to wash the dishes every day, but I know good an' well you won't do it. This day week you can meet me at the train. You might as well drive down to the depot with me now, so's you can bring the team back."

Eli's jaws made connection slowly.

"M'lindy Ann," he said, meekly, "hadn't I better go along with ye? We could git Liza Briggs to mind the place; an' now that I know the ropes—"

"You stay right here," said M'lindy Ann, composedly. "I don't want nothin' to do with none o' the ropes you learned while you was in the city!"

An with this parting thrust a very small and very erect woman walked out to the buggy, followed by a tall and abject-looking man.

"Tain't right for a lone woman to go off on the train with all that money," he said as they drove up beside the little red station. "No tellin' what'll become of ye, M'lindy Ann."

"There won't nothin' become of me," said M'lindy Ann composedly. "You have the buggy here to meet the evenin' train one week from to-day—an' you look after the house. There ain't much to do, you know. You tol' me yestiddy that my work didn't amount to nothin'."

After which M'lindy Ann, the hectorer and brow-beaten, disappeared into an unknown world.

III.

Perhaps there may have been years that were as long as the week of M'lindy's absence, but Eli had never experienced them. The work put new cracks into his back and unexpected blisters on his hands; and he had no sooner completed a meal and got things "straightened up" than he had to begin on another, and get them unstraightened again.

The same thing was to do over and over and over, not only every day, but three times a day. He looked at the soiled dishes with loathing, and swept in the middle of the floor, shunning the corners faithfully. He milked and churned the first day, but after that he merely milked, considering that butter was too dearly bought. After all, it did seem that M'lindy Ann's work was not the easiest in the world, though it had this saving grace—she was used to it. No doubt when one got used to it everything was very smooth sailing.

At last he sat in the old buggy, and saw M'lindy Ann step from the train and walk toward him with the light step of a girl.

"Well, how's everything?" she asked in a clear voice that he did not know. "The whole house is in a mess, I s'pose? Well, never mind—I'll soon get everything cleaned up!"

And he drove briskly home, waiting for her to begin; but she did not begin until she was seated in the kitchen, with the lamp-light showing a new expression in her eyes.

"Well, M'lindy Ann," said Eli mildly, "how'd ye come on in the city?"

He had purposely made the speech

noncommittal. He was ready, if she acknowledged defeat, to jeer at her and sneer at her forever and a day; but he would not begin until he had heard her story. He was not quite so sure of M'lindy Ann. He had lived with her twenty years, but it took more than that to learn all about M'lindy Ann.

She turned up her dress skirt so that the fire would not "draw" it, and began taking things out of her satchel—the same satchel which had journeyed with Eli while he was learning the ropes.

"Well," she said, deliberately, "the money's in bank—half in the First National an' half in the Germania. I divided it, so's in case one of 'em broke. I've got two bank-books an' two check-books—here they are. Every check on that money'll have to be signed by me—but, of course, I won't be mean about it, Eli. I consider that half of it's yours, anyhow."

Eli winced and smiled in sickly fashion, but M'lindy Ann only cast a fleeting glance at him.

"I made another deposit of four hundred and fifty dollars in the People's Bank," she went on calmly. "That's the money I raised for the new church while I was in the city."

"M'lindy Ann!" gasped the astounded Eli.

"Yes," she answered, as if he had asked a question. "I thought I might as well make use of my time while I was there—so I went around among the big men an' tol' 'em who I was, an' what we needed—an' I got the money without any trouble. One o' the big lumber men there has promised two hundred dollars' worth o' lumber, an' another is goin' to give the seats for the church—them patent things, fine as a fiddle. I made 'em put it down in black an' white, for I didn't want 'em crawlin' out of it when I'd got away. With what we've got on han', that gives us our church without a dollar of debt."

"Great Sam!" murmured Eli under his breath.

She saw him give his arm a furtive

pinch, which seemed to be sufficiently convincing.

"I stopped with Cousin Laura's folks, an' they was mighty glad to see me," continued M'lindy Ann, with the light of pleasant memories on her face. "They wanted me to stay a month, but I'd said I'd come home to-day, so I come. But they took me to their church last Sunday, mornin' an' night, an' it was the greatest place to rest I ever saw. We set down to pray, and leant our heads on the back of the seat in front, an' they had people hired to sing for 'em, so there warn't a thing to do. It rested me up a whole lot. Then Monday I hunted up Sam Howard an' collected that hundred an' fifty dollars he's been owing us ever since the woods burnt down."

Eli's eyes glistened, but the words he tried to say stuck somewhere in their passage.

"An' then I went an' bought a lot o' things I'd been wantin' all my life," said M'lindy Ann, looking him in the face.

A dark flush suddenly spread over the sickly pallor of Eli's countenance.

"M'lindy Ann! Have you went an' been extravagant with the money?" he demanded severely.

M'lindy Ann leaned back and rocked in the crazy old kitchen chair.

"Yes, I have," she said calmly. "I heard you tell Si Groves, not more 'n a month ago, that you'd give that money to anybody that could collect it, for you'd been tryin' for ten years an' you couldn't. Well, I went an' collected it, an' I spent it as I pleased. I bought me a silk waist of a kind o' reddish color—ready made, at that—an' a bonnet with a feather on it, an' a flower about the shade o' the waist, an' skirt with a train to it, an' a new cloak, an' some shoes that wasn't brogans. An' I got a new umbrella, an' some gloves—I ain't had none sense I was first married; an' a sewin' machine—the old one's that limber in the joints that it travels all over the floor when I'm sewin'—an' I bought you a whole suit o' clothes, from head to foot. Maybe if you'd had 'em when you

went to the city the cows wouldn't 'a' et ye, like they did."

M'lindy Ann arose and gathered up the papers. Eli was about to say something, but she incidentally held up an old leather grip before his eyes, turning it upside down and shaking it to see if it was quite empty. He stood still for a long moment; and when he spoke his voice was a new voice.

"I'm sorry the house is in sich a fix, M'lindy Ann," he said. "How on earth ye manage to keep it clean is more'n I can see. Ye must have to work pretty hard."

And then M'lindy Ann turned and looked up at him, with something gleaming pleasantly in her eyes.

"We've both worked hard, Eli," she said. "Home's a pretty good place, after all them roarin' streets. I've never been as proud of anything as I'm goin' to be of that new church—an' us settin' there in our new clothes! It was awful nice of you to let me go to the city, Eli!"—[Munsey's.]

"Music Hath Charms."

Yea, verily! as one may read upon the faces and attitudes of four at least of the listeners, and in the rapt expression of the musician. The two maidens who are whispering their confidences to one another may be making some playful reference to handsome Antonio himself; but the girl pausing with her water cans across her shoulder, the little sister bearing her baby brother, the maiden with fingers arrested in the task of winding her yarn, and the girl standing on the door-step, have succumbed to the sweet melody, proving in very deed the charm which music has over the human heart.

H. A. B.

Travelling Notes.

BY ONE OF MOLLIE'S AUSTRALIAN COUSINS.

You may think you know what is meant by a rush at a railway station, but I venture to assert you really know nothing about it, if you have not had to start from that at Florence. In this country no luggage is carried free of charge, except what one carries in one's hand, so everyone has to scramble for one's own goods and chattels, and place them where one can when once one has found an entrance into a railway carriage, a feat requiring skill and courage. For want of a little organization and order, everything within and without was a scene of the most hopeless confusion, equally for those who wanted to get out as for those who wanted to get into the train, the passages being blocked by the two opposite streams of people.

After much squeezing and considerable grumbling, the way was cleared, and we stepped into the first compartment, and arranged our things comfortably for the five hours' journey. Presently an English lady joined us, who proved a very pleasant travelling companion, partaking of our sandwiches and fruit, and we sharing in her tea, made in the carriage on her spirit kettle, and very delightful and refreshing it was. She knew Rome well, and gave us some useful information.

IN ROME AT LAST.

On arrival, there was one continuous call in Italian for porters, but we "humped our own swag," as we say in Australia, our three large baskets having been registered through, and after passing a long line of hotel cabmen, yelling out at the top of their voice the name of each respective hotel, we hailed a



"Music Hath Charms."

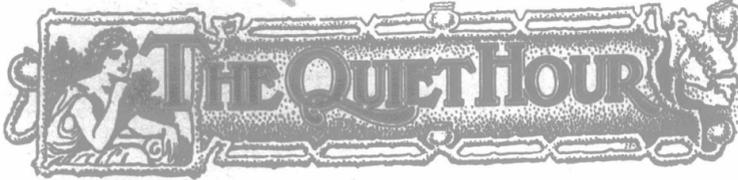
Blaas.

small carriage, something like a Victoria, and drove for the first time through the streets of Rome, and by moonlight too. As we left the station, the broad open streets and the fine large new buildings, the fountains playing in the air, and the electric trains, made us think we were in quite a modern rather than an ancient city. A nice, kind little English landlady awaited our arrival, and we were glad to be shown our rooms and retire for the night, but we found we were in a very noisy city, much more so than old London. Our street, Babuino, one of the most important, is very narrow and cobblestoned, as all the streets in Rome are. A double electric train line, and the houses running up five and six stories on either side seem to confine the noise, and the cries and shouts of the people even in the middle of the night strikes one as most unnatural, yet natural it seems to Rome. The jehus drive furiously, yet skilfully, for the traffic is often much congested, and the accidents in the street are rare. The shops are most fascinating, and we fix our eyes greedily on the coral and Roman pearls. The flower-stands in the piazzas are truly lovely—roses, jonquils, mignonette, anemones, violets, carnations, freesia, and almond blossom waft their odor for some distance—and the peasants, both boys and girls, in their picturesque dress, are most persistent in their efforts to adorn you with buttonholes, and thereby gain a penny. A number of studios engage the peasants during the season for their models, and in certain quarters groups of these girls, during lunch time, are to be seen sitting chatting and knitting on the steps of the churches, their bright dress, brown complexion, black hair, and large dark eyes, typical of Italian beauty, make a charming picture. The weather has been changeable, some days gloriously sunny and warm, with blue sky overhead; others very wet, but this is natural, for February is the rainy month in Rome, and a few almost oppressive days, for the sirocco was blowing from across the Sahara desert, but it seems that at last we have left the cold and damp behind. Now there is no longer any need for fires and extra rugs on one's bed. There is much more than one could fit comfortably in a lifetime of sights and interesting places here to be seen in Rome, and our short stay of three weeks can only give us a very small insight into a few of those most interesting and close at hand.

The churches, numbering 400, the steps of which are always crowded with beggars, contain many beautiful works of art, but much of the beauty is lost often, owing to the poor light within. The gem of them all is St. Peter's Cathedral, whose mighty dome may be seen for miles around. The piazza in front is bound by a semicircle of four rows of lofty pillars, which enclose an Egyptian obelisk of one solid piece of granite, and two perpetual fountains, one on either side, putting out water to a great height. This stone-paved area makes a very imposing approach to this magnificent building. As you mount the marble steps and take a view of the front of this basilica, you are more and more amazed at its size and splendor. Within is a wealth of marble, exquisite sculpture and mosaic. Adjoining the Cathedral is the Vatican, or Pope's Palace, of 11,000 rooms, of no particular beauty or design, parts of which are open to the public, and the Pope's Swiss Guards, whose uniform was designed by Michael Angelo, here keep watch. Passing up the beautiful corridor, you enter the Sistine Chapel, celebrated for its fresco paintings by Michael Angelo, one wall of which alone took him eight years to paint.

AUSTRALIAN NELL.

"Why do you sign your name J. John B. B. Bronson?" asked Hawkins. "Because it is my name," said Bronson. "I was christened by a minister who stuttered."



In the Shadow of the Rock.

"Just to let thy Father do
What He will;
Just to know that He is true,
And be still,
Just to follow, hour by hour,
As He leadeth;
Just to draw the moment's power
As it needeth.
Just to trust Him, this is all!
Then the day will surely be
Peaceful, whatso'er befall,
Bright and blessed, calm and free."

The readers of the "Advocate" have lately been asked to state their preference for this or that column in the Home Department, but I think if you asked a thousand aged Christians to state their preference for any particular chapter in the New Testament most of them would decide in favor of the fourteenth of St. John's Gospel. Perhaps they might not be able to tell why its words are like a restful lullaby to them in the weariness of old age; but probably it is because it brings such a welcome message of peace. Its opening words are like a strain of sweetest music: "Let not your heart be troubled." Then the strain swells out in grandest melody: "Peace I leave with you; My peace I give unto you. Let not your heart be troubled, neither let it be afraid."

Miller says that the word "peace" is repeated more than 250 times in the Bible. It certainly seems to be a word which only God's servants fully understand the meaning of. St. Paul and Isaiah entirely agree in saying of the ungodly: "The way of peace they know not." And Isaiah repeats the solemn declaration several times, giving it authority as a message from Jehovah Himself: "There is no peace, saith the Lord, unto the wicked." People who care nothing for God, may know what it is to have a "jolly good time," they may even taste something of "joy," although a joy that does not spring from walking hand-in-hand with God can never stand against sorrow; only a Christian really finds it possible to "rejoice in tribulation." But peace is especially our Lord's gift to His disciples. He offers it to each of us, but although we can hardly fail to think it a gift worth having, the fact remains that too often we struggle through life without it. There are rough and stony places in every path, and if we don't put on the sandals of peace of course we must expect to limp painfully over these hard bits. This is a subject that touches us all at times, and we all have good reason to ask the question:

"How shall I quiet my heart? How shall I keep it still?
How shall I hush its tremulous start
at tidings of good or ill?
How shall I gather and hold contentment and peace and rest,
Wrapping their sweetness, fold on fold,
over my troubled breast?"

How shall that important question be answered? Will God indeed keep us "under His folded wings in a peace serene—divine?" Is there really such a thing possible for us as the perfect restfulness and peace in the midst of danger, which is compared by Miss Havergal to resting in a strong fortress, perfectly secure, though deadly foes are raging outside, or resting in a lifeboat when the waves are rolling mountains high? Is there anything we need every day of our lives more than peace? Is there anything God offers more freely? The supply is prepared to meet every demand, and it is offered to poor as well as rich—a priceless gift which no millionaire can buy with his money. We all want it; we may all have it, and

yet the strange fact remains that we very often fail to secure it. The reason for this is not far to seek; want of trust is at the root of the difficulty. We don't trust God, and, therefore, we constantly find ourselves "careful and troubled about many things." Peace can only rest safely on the strong rock of Trust. Those who really trust God are sure to find Him "a strength to the poor, a strength to the needy in his distress, a refuge from the storm, a shadow from the heat, when the blast of the terrible ones 'is as a storm against the wall.'" Over and over again Isaiah says that God is a shadow from the heat. His prophecy has been exactly fulfilled: "A man shall be as a hiding-place from the wind, and a covert from the tempest: as rivers of water in a dry place, as the shadow of a great rock in a weary land." What a restful picture is called up by these familiar words. A traveller struggling across a terrible desert, dreary wastes of sand stretching in every direction, the hot blast of the desert wind fills the air with blinding clouds of dust, the throat and lips are parched with burning thirst. To such a traveller it would be like a foretaste of heaven to rest in the shadow of a great rock beside a cool stream. But what a difference it would make in the comfort of his journey if he could walk always in the cool shadow of the Rock, beside the clear waters of the river of Peace. St. Paul says that the Israelites in their journey through the wilderness "drank of that spiritual Rock that followed them: and that Rock was Christ." If they could do that, how much more can we.

I know very well that it is easy to talk about keeping the fence of Trust between to-day and the future, but it is not so easy to keep that fence in good repair. It requires attention every day, and many times a day, or it will be broken down by the cares and worries which are always trying to injure our peace. Every time we find that a worry has crept through and attacked us, let us take it at once to Christ, ask Him to make it work for our good—and then leave it for Him to deal with. It is no use asking Him to manage our affairs for us, and then fretting and chaffing because they seem to be as bad as ever. We are commanded to cast "all" our care on Him, and He is surely able to straighten out all tangles. He "careth" for each one of us, says we are of more value than many sparrows, and that He has numbered the very hairs of our head. He says that though a mother may forget her child, yet He will never forget His people. Think of the wonderful love which declares: "I have graven thee upon the palms of My hands." If God cares so much for us, surely we may safely lay down our burden of care, feeling sure that everything left in His hands will turn out for the best in the end. We may safely trust in the Rock of our salvation and say: "I sat down under His shadow with great delight. . . . and His banner over me was Love." If we only trust God fully and completely, we shall certainly find that Isaiah's words are true in our case: "They thirsted not when He led them through the deserts; He caused the waters to flow out of the rock for them." If we trust Him, every day and every hour, then we shall find that our peace shall flow as a river.

"I never thought it could be thus—
Month after month to know
The river of Thy peace without
One ripple in its flow;
Without one quiver in the trust,
One flicker in its glow."

HOPE.

Domestic Economy.

When a teapot becomes musty from being put away damp, fill with boiling water, drop in two red hot cinders, close the lid and let it stand a few minutes; then rinse, first with hot soda water, then with plain boiling water. To keep the teapot sweet, always dry thoroughly, then stuff in a light wisp of paper so that the lid will not quite close.

High collars, besides interfering with the proper pose of the head and the lines of the neck, are harmful from a health point of view. The neck muscles are strained, and, incidentally, the cords of the neck and shoulders. If too high in front they impede circulation, and are said to account for much of the impaired eyesight now so prevalent. Tight collars will often cause headache. If you abolish the high collar, the dark circle around your throat may be removed by bathing the neck with the lather from a cake of iodide of sulphur soap.

An artist scolds gently on the practice of many housekeepers to arrange potted plants, palms, and the like, round a fireplace. The fireplace of a room should centralize its hospitality. Chairs and sofas may be drawn up towards it, little tables also, but plants never belong near the chimney-piece. The arrangement of the furniture of a room should be from the useful and comfortable side. A window is to let in light, and the reading chair, piano and the writing-desk belong where they will get the benefit of the necessary light. Instead, these articles are often tucked in a dark corner, while a table with a statuette, perhaps, occupies most inappropriately the window niches.

PERMANENT CURE FOR BUNIONS.

Place bandage around the foot over the bunion very tight; carry one end of bandage up around the great toe, forcing it out from the other toes toward the inner part of foot a little more each day. This treatment, if persisted in for a week or two, or, if bunions are very bad, a little longer, will cure the cause of bunions, namely, enlarged joints from ill-fitting shoes. Bandage can be worn very comfortably in the shoe.

USEFUL HINTS.

Does everyone know that bread flour is the best to use for thickening pudding sauces and light or white gravies; also that entire wheat flour is best for brown gravies, and also to use with graham or corn meal instead of white flour in cakes and gems? How many know that a quarter teaspoon of turmeric mixed with the mustard in salad dressing makes a much nicer colored dressing? How many use a short stiff brush for cleaning vegetables? Once tried you would never do without.

APPLE FILLING.

A delicious filling for layer-cake will be found by using this rule: Pare and core four large apples; grate them fine on a clean horse-radish grater. Add to them the juice of a lemon and the grated rind of half the lemon. Sweeten to taste (do not make it too sweet), and place between the layers of the cake, which should be a plain sugar cake, flavored with vanilla and baked in three layers. Spread an icing on the top, made with the juice of half a lemon and sufficient sugar to make an icing which will not run.

CUP CUSTARDS.

Four eggs beaten with half a cup sugar and small teaspoon salt. Stir this into one quart of hot milk, and grate in a sprinkling of nutmeg. Pour into a pan of hot water, and bake in a moderate oven. A teaspoon of vanilla may be used to flavor, if desired. To test if they are done, run the blade of a knife to bottom of cup; if it comes out clean they are done. Custards are so nutritious and so easily made that they should be much more used in the farmer's family than they are.

The Story of Caliph Stork.

[An Old German Fairy Tale Translated by James Speakman, Penhold, Alta.]

CHAPTER V.

When the storks in their corner heard this, they were almost beside themselves with joy. They ran with their long legs so swiftly to the gate of the castle that the owl could scarcely keep up with them.

There the Caliph, with deep emotion, said to her: "Deliverer of my life and my friend's life, in eternal gratitude for what you have done for us, I offer myself to be your husband."

Then he turned towards the east; three times the storks inclined their long necks towards the sun, just rising behind the mountains. "Nutabor," they cried. In a flash, they were changed, and in the delight of new-found life, master and servant, laughing and weeping, lay in each others arms.

But who can describe their amazement when they turned round. A beautiful lady, splendidly dressed, stood before them. Sinking, she gave her hand to the Caliph. "Don't you recognize your night-owl?" said she.

The Caliph was so enraptured with her beauty and grace that he cried out: "It has been my greatest good fortune to have been a stork."

The three now journeyed together to Bagdad. The Caliph found in his garments, not only the box with the magic powder, but also his purse. He, therefore, bought in the nearest village what they needed for their journey, and so they soon arrived at the gates of Bagdad.

There the appearance of the Caliph excited great amazement. He had been reported dead, and the people rejoiced greatly in the restoration of their beloved ruler. All the more their hatred blazed against the imposter, Mizra. They entered the palace and captured the old magician and his son. The former was hanged in the chamber of the ruined castle where the princess had lived as an owl. But the son, who knew nothing of the arts of his father, had the choice to die or snuff the magic powder. He chose the latter, and the Grand Vizier presented him the box. A good pinch, and the magic word of the Caliph changed him into a stork. The Caliph had him shut up in an iron cage, and hung up in his garden.

Long and happy lived Caliph Chasid, with his wife the princess. His happiest hours were always when his Grand Vizier visited him in the afternoon. They often talked of their adventure as storks, and when the Caliph was in a specially good humor, he would condescend to imitate the Grand Vizier in his appearance as a stork. Solemnly he stalked up and down the room, clattered, flapped his arms like wings, and showed how the Vizier had vainly bowed towards the east, shouting, Nu—, Nu—.

For Madam Caliph and the children this was always a great delight, but sometimes when the Caliph clattered and bowed, and cried Nu—, Nu—, too long, the Vizier would smile and threaten to tell Madame Caliph their conversation outside the door of the princess night-owl. (The end.)

In House-cleaning Time.

Before the stoves are put away for the summer, clean off any rust stains by rubbing the nickel and steel with linseed oil. After it has remained for a day or two rub the places with a cloth dipped in ammonia.

Feather pillows need washing now and then, if used constantly, for they accumulate dust and dirt. Choose a bright, sunny day for the work, and a gentle breeze helps them to dry quickly. Fill a large tub half full of water that is almost boiling hot, and dissolve enough Gold Dust washing powder in it to make a good suds. Put one or two pillows in at a time, according to the size, and move them about, pushing them up and down, and rubbing them between the hands until they are clean. If one water is not enough, use two, rinse in clear water, wring as dry as possible, and hang them on the line to dry. Shake them occasionally to keep the feathers from sticking together, and they will be as light and soft as new pillows.



Clarissa's Strawberry Short-cake.

By Emilia Elliott.

Don't go out of sight, Clarissa; Sam Sharp's to bring back the churn, and the money's on the sitting-room mantel. I'll be home early. Company's coming to tea, and not a crumb of fresh cake in the house! If only— Miss Howe started up Dobbin without finishing her sentence.

Clarissa knew that she meant. Clarissa, left alone, thought of Aunt Martha's half-spoken wish. For awhile she stood irresolute, then turned to go indoors. "I will do it," she said. "I'm sure I can."

Enveloping herself in a big apron and rolling back her sleeves, Clarissa started up the fire. Aunt Martha's first thought was always to look to her oven.

Then she stepped from kitchen to pantry, and from pantry to kitchen, feeling very important and grown-up. She studied carefully one of the recipes written plainly out in Miss Howe's cook-book, sifting and beating, stirring and mixing in the most careful manner.

With the baking came a reaction. If it shouldn't turn out good, Aunt Martha would never approve of such a waste. Presently she started at hearing a voice say:

"Halloa, 'Rissa, what you cooking? Who have you got a grudge against?"

"Tom Howe!" she said, turning.

"You're treading a floury path this morning, 'Rissa. It's even on the point of your nose."

"I've been making strawberry short-cake," Clarissa said proudly. "Mrs. Perry's daughter's home for the day and they sent word to Aunt Martha to come over to dinner. The minister and his wife are coming here to-night to tea, and Aunt Martha's expecting to bake cake when she gets home."

"Won't she be surprised?"

"Rather, if—"

"I hope there isn't any if."

"Your berries hulled?"

"No; nor picked."

Tom whistled. "'Rissa all over."

"The patch's beyond the next pasture, and I couldn't go so far till Sam Sharp brings home the churn. I'll run over by and bye."

"I'll look out for Sam. It may shower later. I'd go, but father dropped me on the way to the blacksmith's and may be back soon. If I blow the horn you hurry home."

"But the baking—it's the most important part?"

"Bless you, I've often watched mother's."

Clarissa concluded to take Tom's advice. Though the sun was shining brightly now, there were heavy banks of clouds in the western sky.

"Sam's money's on the mantel in the other room," she said; and taking her sunbonnet and basket started off. The pasture was wide and sunny; Clarissa's feet moved slowly, and when the berry patch was reached it was hot work bending over the vines with the sun beating full on her. More than once Clarissa looked longingly at the woods below at the edge of the field. She would go down there where it was cool and shady to hull her berries. She was too warm and tired to start home. Tom wouldn't mind staying alone that much longer.

As soon as her basket was full, Clarissa went down to the woods. Sitting bareheaded on a fallen moss-covered trunk, the light breeze lifting the curls on her forehead and fanning her flushed cheeks, Clarissa for once enjoyed hulling strawberries. She kept a listening ear for the horn. The last berry hulled, Clarissa walked slowly homewards. Before she reached the house the horn sounded, and Tom was gone when she got there.

On the kitchen table lay three tempting layers of cake. Clarissa drew a sharp breath of satisfaction. It was four o'clock when Clarissa, from her post of observation on the front horse block, saw Dobbin ambling leisurely up the dusty road.

The threatened shower had passed over, but Clarissa was glad the berries were picked, else the cake couldn't have been sitting now on the pantry shelf waiting only a last powdering of sugar.

"Anyone here, Clarissa?" Miss Howe asked as Dobbin turned into the yard.

"Tom and Sam's been."

"Call Zeph, then get me out the baking things and start the fire. 'I'll be down directly."

When Miss Howe came down she looked impatiently at the empty kitchen table.

"I told you to fetch out the things," she said, "and there you stand idle."

She whisked into the pantry; Clarissa waited for what would follow. There was a moment's silence, then Aunt Martha returned carrying the strawberry short-cake.

"That was kind of mother," she said in a tone of pleasure. "It couldn't have come in handier."

"Grandma didn't send it, Aunt Martha."

"Then who did? There's some good cooks about here, but that cake bears the Howe mark as surely as if 'twas stamped so."

"No one sent it, Aunt Martha."

Aunt Martha noticed the exultation in Clarissa's voice.

"Clarissa Howe, you never —"

"Yes, I did, Aunt Martha. All myself, and the first time."

"It's as pretty a cake as I want to see," Miss Howe said warmly.

It had been a sore trial to Aunt Martha that Clarissa had shown so little aptitude for cooking, and now Clarissa was turning out a "true Howe" after all.

When all was ready, the company being entertained by Aunt Martha in the cool parlor, Clarissa came for a last admiring survey of the table.

To her the white china tea set, with its green and violet sprigs; the polished silver, and shining glass; the damask roses in the center, their scent mingling with the sweet odor of the new-mown grass in the fields outside; all the dainty touches but served to set off her cake.

At last the time came for the cake to be passed. And then Doctor Hardy said he would really like a second piece. It was certainly delicious cake.

"Delicious," echoed his wife. But then everyone knew what Miss Howe's cake was.

Aunt Martha said Clarissa had made this. Doctor Hardy turned to the blushing Clarissa:

"You'll be a famous housekeeper some day."

"I thought Clarissa wasn't given to such things. How many mixings did you spoil?"

"None," Clarissa answered. "I'd like mother to have a piece of that cake," Miss Howe said later on when their guests were gone. "She'd be right proud of it. Suppose we go over to-morrow."

Clarissa was awake bright and early the next morning. Aunt Martha was already stepping about downstairs. Clarissa sprang out of bed and ran to the window. It was going to be a beautiful day. She dressed hurriedly, her mind full of the day's pleasure before her. Presently Aunt Martha called:

"Clarissa."

"I'm coming," Clarissa answered cheerily.

She went down the stairs two at a time. In the kitchen doorway she stopped abruptly. On the table were three layers of cake, yellow and heavy; an utter waste of good material.

"Clarissa," Miss Howe said, "by the merest chance I found these this morning out back of the wood-pile, and you told me you had only made one cake."

"I didn't make but one," Clarissa answered.

Miss Howe looked at her in amazement; evidently Clarissa was determined to brave it out.

"Do you think I made them?" she asked. "Clarissa, those were made not later than yesterday. Listen: Unless you tell me the truth about them before breakfast is over I shall go to mother's alone. You deserve to be left

at home anyway, telling such a falsehood, but I will give you that chance."

Miss Howe commenced to get breakfast, and Clarissa went slowly out to feed her chickens.

"What would grandma think when Martha told her and Tom?" Clarissa forced back a sob. She wouldn't cry. It was to have been such a lovely day, and now!

Breakfast was a dismal meal that morning.

When it was over Miss Howe asked: "Well, Clarissa, have you anything to say to me?"

"No, Aunt Martha. I told you I didn't do it. What else can I say?"

"Then I shall leave you at home. Mother will feel terribly."

The hall clock was striking nine when Aunt Martha drove away, leaving Clarissa standing on the back steps. Only nine o'clock, and Aunt Martha might not be back before five. Going down to the orchard, Clarissa threw herself on the ground, not trying longer to keep back the sobs. Overhead the birds were singing joyously. She heard the soft, busy hum of the bees fitting among Miss Howe's old-fashioned garden flowers. The air was full of sweet June odors; and she was sobbing her heart out in the orchard while Aunt Martha was driving slowly along through pleasant country roads; but, if Clarissa had only known it, feeling quite as unhappy as Clarissa herself. For Aunt Martha, too, the summer day had lost its charms. By and bye Clarissa arose and sauntered listlessly across the sunny fields to the woods. Sitting on the log where she had hulled her berries, she thought over all that had happened since yesterday morning.

"I wish I hadn't made any cake," she said. "I wish—" she started suddenly.

Through the still air sounded a whistle, shrill and clear—Tom's whistle. In a trice Clarissa was speeding back to the house.

In the yard stood her uncle's horse, Major, harnessed to the light wagon, while Tom, on the wagon seat, was making a trumpet of his hand.

"Hurry," he shouted, as Clarissa came in sight; but she needed no such summons.

"Get in," Tom said when she reached him.

"Did Aunt Martha send you?" panted Clarissa.

"I'll answer questions later, 'Rissa; come on now."

"But—"

"There isn't any but."

"Then just give me time to change my dress."

Clarissa hurried up to her room, where on a chair lay her fresh pink cambric, put there the night before with such joyful anticipations.

In a short time a very different Clarissa appeared. A laughing, bright-eyed Clarissa; as Tom helped her up beside him she gave a little spring of delight. She was to have her day after all.

"What made Aunt Martha change her mind?" she asked.

"Hasn't," Tom chuckled at the swift dismay in Clarissa's blue eyes.

"Tom, I must go back."

"Not a step. She's going to change. You trust to me, 'Rissa."

And Clarissa, though sorely puzzled, was fain to do so. Still, when they reached the long avenue of maples leading up to the house, she asked anxiously:

"You're sure, Tom?"

"Sure." He drove in fine style through the avenue, drawing up with a flourish before an astonished group on the porch.

"Clarissa," grandma, said, coming straight to where the little girl sat on the high seat.

"I'm afraid I ought not to be here, grandma, but Tom says it's all right."

"So that's where you disappeared to, Tom," his mother said, while Aunt Martha eyed sternly this nephew who had dared to take the law into his own hands.

Tom turned to Miss Howe: "Aunt Martha, Clarissa did tell the truth about her cake. Hers was the heavy one; I made the other."

cooking," his mother said. "I'd rather have his help than a dozen girls."

"It was even worse for Clarissa to pass off your work as hers," Miss Howe said severely.

"Clarissa didn't know it." Tom explained how he had been left to watch the baking. "I saw the moment I looked at it," he continued, "that Rissa's cake was no good. I knew she'd set her heart on having one to surprise you with, so I hustled around and stirred up another, chucking hers behind the wood-pile. Aunt Martha, your hens, are more knowing than I gave them credit for. I never supposed there'd be such a pow-wow raised. I meant to tell the joke the next time I was over; but when you came this morning and began to talk about Rissa telling an untruth I went straight after her."

"I'm glad you did," Miss Howe said heartily. "Clarissa, I'm sorry for what happened, but appearances were against you. There's one thing, you aren't a true Howe at cooking; you're one in a better way, you won't lie, even to get yourself out of trouble."

Grandma saw the wistful look on Clarissa's face as Tom helped her down. "It's been pretty hard on you, dear," she said, drawing Clarissa to her.

"I'll leave her over here with you awhile, mother," Miss Howe said.

"That'll make amends. Tom can come over for her things. Perhaps you'll teach her to make a cake equal to his."

Clarissa's face brightened. She nestled close to grandma. "Can you?" she asked.

"Yes, indeed," grandma answered. And she did.

Humorous.

"What is bread chiefly used for, Tommy?" asked the teacher of a small pupil in the juvenile class.

"To spread butter on," was the logical but unexpected reply.

First Omahan—The doctor says my Jersey cow has the ague. Did you ever hear of such a thing?

Second Omahan—No; but the idea is a good one. You can have a milk-shake whenever you wish.

"Papa," said the fair girl, with a touch of sadness in her tones, "I have received a note from William saying you kicked him as he left the house last night."

"Yes," replied papa, "I have always paid your expenses, and I footed this Bill merely to be consistent."

"Dicky," said his mother, "when you divided those five caramels with your sister, did you give her three?" "No, ma. I thought they wouldn't come out even, so I ate one fore I began to divide."

A bishop of a northern diocese wrote to a publisher in New York for a book called "New and Contrite Hearts." In a short time he received a postal from the publisher, saying, "We have no 'New and Contrite Hearts'; neither are there any to be found in New York." The northern prelate, it is said, enjoyed sending the postal to the bishop of New York, calling his attention to the state of his diocese.

Dr. Thomas Hume, an Irish wit and friend of Thomas Moore, went into a newspaper office and silently placed on the counter the announcement of a friend's death, together with five shillings, the usual charge for the insertion of such advertisements.

The clerk looked at the paper, tossed it to one side, and said, in a surly manner:

"Seven and six!"

"I have frequently had occasion," replied Hume, "to publish these simple notices, and I have never before been charged more than five shillings."

"Simple!" repeated the clerk, grumpily, without looking up. "You say he is 'universally beloved and deeply regretted!' Seven and six!"

Hume laid the additional money on the counter, saying quietly:

"Congratulate yourself, sir, that this is an extra expense to which your executors will never be put."



Dear Friends,—Now that the warm weather is coming on apace, I think it would be a grand thing for each of us to make up her mind to see and appreciate more this summer than ever we did in our lives before. You know there are people in this world who go through life without really seeing very much, or appreciating very many of the wonderful variety of things which fill this grand old earth upon which we have been placed for a while. I think these people miss a very great deal, don't you? It is something to notice the sky, with its wonders of cloud-form and color; it is something to see beauty in the little shadows dappling the "bush road," when the sun shines through the trees, or in the waves of light and shade that chase one another over the hay lands or grain fields. It is something to be able to recognize the different flowers along the brooks, over the prairies, or up in the woodlands as old friends, to be able to name this one or that, and to tell the peculiarities which mark out one as different from another. All these things add interest to life, and help to develop in us those "extra eyes" which Burroughs so loves to talk about. And, really, I don't think the half of us realize how blind we are. We just jog along, day after day, missing thousands of things all about us, which are sources of endless interest and wonder to others.

Not long ago I had the privilege of hearing a very dear old gentleman give a talk on "moths." I had never dreamed before that there could be so much to learn about the little creatures. He showed us possibly 300 or 400 specimens, and as he described them we could but sit like Goldsmith's rustics, in mute wonder, "that one small head could carry all he knew." The particularly large and handsome specimen he exhibited with especial pride; also the big cocoon from which it had emerged. This cocoon he had noticed upon some lilac bushes, close to the sidewalk, one Sunday when going to church, and had determined to secure it. For several weeks, however, he forgot about it, then fearing lest someone else had captured the prize, he went to the lilac bushes. The cocoon was there still; not one of the thousands of people who had passed along that city street having noticed it, save this one old gentleman, whose sight had been keener than theirs. Burroughs says, "If you want to find the bird in the bush you must have him in your heart," and I suppose this was partly the secret of the discovery.

I think it is well to have some such hobby or hobbies as this. We may not all care about the same things, but there are very, very many "birds." Our "bird" may be the study of rocks, soils, plants, animals, music, art, or literature; little matter which, provided we are genuinely interested in it, and it provides for us a side-line out of the ordinary routine of our lives. I have noticed that people who have such hobbies are enthusiasts even to old age, and that in the evening of life, when all the children are married and gone, and the waters are very still just inside the bar, life still bears for them the perpetual interest and wonder of youth. . . . Just one more thought, in regard to this "seeing" of things. I will give it you in the words of Elizabeth Barrett Browning, and leave it to you to think out

for yourselves. Never were truer words spoken:

"Earth's crammed with heaven,
And every common bush afire with God.
But only he who sees takes off his shoes."

May we of the Ingle Circle all be numbered with those who "see."

DAME DURDEN.
"Farmer's Advocate" office, London, Ont.

I am so glad that Mrs. A. S. has come to us again—the Mrs. A. S. who wrote to us last summer about her babies, and the little oilcloth slips she used to help keep the little tots clean—you remember, do you not? Sorrow has come to her since then, and I am sure the sympathy of our Circle will go out to her. Her "Sensitive Plant" tells the story. It is very hard to understand why such things should be, especially at first when the wound is freshest, and when one can only look forward to the "eventide," when "it shall be light." Do you know Tennyson's "In Memoriam," Mrs. A. S.—that beautiful poem written at the time of his trouble. Here are a few verses taken from it at random. I am sure you will feel the hand-grasp in them:

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

"My own dim life should teach me this,
That life shall live forever more,
Else earth is darkness at the core,
And dust and ashes all that is."

"Nor blame I Death because he bare
The use of virtue out of earth:
I know transplanted human worth
Will bloom to profit elsewhere."

"And doubtless unto thee is given
A life that bears immortal fruit,
In those great offices that suit
The full-grown energies of heaven."

"Behold, we know not anything;
I can but trust that good shall fall,
At last—far off—at last, to all,
And every winter change to spring."

THE SENSITIVE PLANT.

(An Allegory.)
The Lord of our vineyard, who has always been so kind to us, and who knows that we often professed our attachment for Him and His, sent us a little sensitive plant that we might rear up for Him. It was a slip of that kind called everlasting, and yet was in a vessel of common earth; a vessel, base in its material, frail in its texture, yes, curious in its construction and beautiful in appearance. There was nothing remarkable in this little plant, but it began to excite attention by the sprightliness of its growth, the verdure of its leaves, and the lovely little blossoms it here and there put forth; so that both the plant and pot were admired, not only by us who considered it the principal ornament of our cottage, but by those of our friends who felt interested in our happiness. Some, indeed, told us that a plant so beautiful would soon be claimed by its owner, and that the vessel in which it was set would soon be too small to contain it. We acknowledged the truth. We contemplated the probability of a removal; yet, while we were engaged in directing its shoots upwards, and in setting in view the flower, we could scarcely help thinking it was our own.

Whether it was to assert His own right; whether to add to His choicest collection; whether to provide a safer situation, or whether He has preferred some other employment for us, we are not yet informed; but He has sent a messenger to us who has broken the pot, and taken away the plant. We know

"King Baby Reigns"
BABY'S OWN SOAP
Pure, Fragrant, Cleansing
Makes any skin like Baby's.
Albert Toilet Soap Co., Mfrs.
MONTREAL.
No other Soap is just as good. 313

MELOTTE CREAM SEPARATORS

save their cost in twelve months and produce more butter with eight cows than is produced under the old method with ten. Don't delay purchasing because you think that later on you will be able to get this or that improvement or reduction in price. You are losing from \$5.00 to \$10.00 with every month's delay. Free trial to intending purchasers.
WRITE FOR BOOKLET.
Sizes A, B, C, with Detachable Bowl Casing.

R. ALISTER & CO LTD
679 & 501 ST PAUL STREET
MONTREAL.

SUPERFLUOUS HAIR

can only be permanently removed by Electrolysis. We have had over twelve years' experience in the removal of this disfiguring blemish. Also
Moles, Birthmarks,

Warts, Red Veins, Scars, Smallpox Pittings, and all defects or troubles of the face, hair, scalp, hands, feet, and figure. Consult us by letter (or call), enclosing 10c. for books and sample of cream.
Use **COMPLEXION PURIFIER** for freckles and discolorations. Price \$1.50, express paid.

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

1/2 of greatness

is opportunity. That's the why of our Special Course for Farmers' Sons. Opportunity for those we know have the stuff to be great. In school, if you have the time to spare from home. At home by Mail Course, if you cannot get away. We have special booklets dealing with this line of work and want to place them in your hands. When you write, address

Central Business College
TORONTO, ONT.
W. H. Shaw, - President.

CIDER MAKERS' MACHINERY
Best and cheapest. Send for catalogue.
BOOMER & BOSCHERT PRESS CO.
888 West Water St., SYRACUSE, N. Y.

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

that in its present situation, it will be more vigorous in its growth, and more beautiful in its appearance; that its stalk will not be broken by the fierce wind; nor its tender shoots scorched by the burning sun, or nipped by the pinching frost; that its blossoms will never be a prey to the rude worms, nor its fruit to the tempest.

All this we know, and He has sent us His word that what we know not now, we shall know hereafter.

DESIRE-TO-HELP.
(Formerly known as Mrs. A. S.)

ABOUT THE BADGE.

Dear Dame Durden,—We have had the "Advocate" nearly a year in our home and enjoy reading it very much, especially the Ingle Nook Chats. I certainly think a badge would be very nice to wear to represent the Ingle Nook. I think that same ribbon, yellow and black, would be very nice, with four streamers, and a little rosette fastened in the top. I have only seen but one announcement about the badge, so I thought I would send in my liking.

E. D. ANDERSON.
Wetaskiwin, Alta.

FROM "DON'T SIGH" HOUSE-KEEPER.

Dear Dame Durden,—In reply to Mrs. J. E., I will send the American yeast recipe. I am sure she will find it very handy at this busy season, when we are all so busy housecleaning. I thought of giving a few hints on housecleaning. We always just take one room at a time, and do it thoroughly, have done so for years, and find it very helpful, especially when any of our friends drop in unexpectedly. It is nice to have the rest of the house in order. My floors, I paint, with borders, any colors which will blend nicely. I think they improve a room very much. We stop our cleaning, so as to be dressed up before the children get from school, and prepare a nice hot dinner for six o'clock, and then are not too tired to spend a pleasant evening with our family.

American Yeast.—Peel and slice two quarts of potatoes; boil soft; put through colander. Add: half a cup sugar, half cup flour, three quarts of water. Have your yeast milk-warm; then add two cakes of Royal yeast cake, previously blended in warm water; set in a crock covered warmly, and stir occasionally for a couple of hours. Next day, you can make your first batch of bread. This amount of yeast makes about twenty-four loaves. For a baking of eight loaves, take one and a half quarts of yeast and same amount of water; make milk-warm; add salt; have your flour thoroughly warm; mix stiff; then knead well on bakeboard. Cover up warmly for nearly two hours, then knead again. In one and a half hours put in the pans, and in one and half hours bake from one to one and a quarter hours. Cover the rest of your yeast with cloth and lid in cellar for your other batches. Be sure and keep the bread warm till it is baked.

Raspberry Cake.—Two eggs; half cup sugar; one cup preserved raspberries; half cup butter; two tablespoons butter-milk; one teaspoon soda; two cups flour. Beat all together thoroughly. Bake in a moderate oven, and ice as desired.

Buns.—When you are panning your bread, reserve a piece the size of a loaf; add half a cup sugar, and one egg. Mix well; let stand two hours; then form into little loaves the size of an egg; let rise three hours in warm place; bake, and you will have two dozen of lovely buns hot for tea.

DOING UP LACE CURTAINS.

Miss Emma Schenk writes, asking how to do up lace curtains. . . . Wash your curtains separately from other things, being very careful in handling them, so that you may not tear the lace. If yellowed at all, a little turpentine or coal oil put in the boiler will help to whiten them. Rinse well and blue, testing the blue water with a bit of white cotton before putting in the curtains to see that it is the right shade. Nothing looks worse than curtains that are too blue. Have a thin boiled starch made; immerse your curtains in it quickly, and press out. Do not

wring, as that would be destructive to the lace. Now, if you have curtain frames, you may stretch your curtains on them, taking care to have the lace spread out smoothly and evenly, and all the points pinned out in place. If you have no curtain frames, spread clean white sheets on the floor in some unused room, pinning them to the carpet if there is one. Now spread and stretch your curtains very carefully on these sheets, pinning them all round, and pulling all the points out carefully and gently into place. Now close up the room to lessen the possibility of dust blowing in, and leave your curtains to dry. If you have any old worn ones, you might try this plan with them. Mend the holes with bits of old lace, wash as above, then before starching mix in with your boiled starch enough yellow ochre to make the curtains a pretty old gold shade. Now you may not think these would be a bit pretty when reading about them; the name "yellow ochre" doesn't seem to go well with "lace curtains," does it? Nevertheless, I can assure you that curtains which I have seen after this treatment looked very pretty indeed, especially in bedrooms in which the color scheme was yellow and white. Besides, in these old gold curtains you never seem to see the mends at all.

D. D.

THAT JUNE WEDDING.

As the matter was already arranged for this number before "Earnest Reader's" letter arrived, it has been found impossible to answer her question regarding the "June Wedding" this week. We shall try to help "Earnest Reader" in our next issue, however, and hope that what hints we may give will not be too late.

DAME DURDEN.

Oiled with Cheerfulness.

When the sailors heave the anchor, they start a song, to the music of which they keep time. When a regiment marches to battle, the band plays martial airs to stimulate and strengthen them. When the machinery of daily occupation runs smoothly and without friction, the wheels must be well oiled with cheerfulness.

"Give us, Oh give us," cried Carlyle, "the man who sings at his work! Be his occupation what it may, he is equal to any of those who follow the same pursuit in silent sullenness. He will do more in the same time—he will do it better—he will persevere longer. Wonderful is the strength of cheerfulness; altogether past calculation is its power of endurance!"

The dull day grows bright and the dreary burden grows light with the coming of cheerfulness.—[East and West.

Solid Scholarship.

At a political meeting an excited Irishman had risen to yell his satisfaction. "Sit down!" called the man behind him, twirling his coat tails. "Don't you know you're opaque?" "And that I'm not!" cried the other, "I'm O'Brien."

V. C. tell a story of Professor Huxley, which suggests that he may have heard of the Irishman. The professor had made a demonstration, and asked a student:

"You follow me?" "Yes, sir," he replied, "except at one point, when you were between me and the blackboard."

"Well," said the professor, "I always try to be clear, but I can't make myself transparent."—[East and West.

THE WOUNDS OF A FRIEND.

The small boy who wrote the following letter was so eager to express his gratitude that he did not notice just what his letter seems to include under benefits received:

"Dear Uncle Thad," he wrote. "I received the knife you sent me; it is just beautiful. I cut myself with it five times since I got it. I thank you ever and ever so much for the knife. Your affectionate nephew, Ted."

Local Treatment for Women's Disorders.

The health we enjoy depends very largely upon how the blood circulates in our bodies; in other words, if we have perfect circulation we will have perfect health.

There is a constant wearing out of the tissues in every part of the body. The blood flowing through the veins carries off this waste or dead matter, while the blood coming from the heart through the arteries brings the fresh new living tissue, the essence of the food we have digested, to replace what has been carried off. This constant wearing out and expelling of the dead matter and the replacing of it with new matter, atom by atom, goes on day and night, until in about 7 years a complete change has been effected. Thus every man and woman has an entirely different body in every particle of it from what he or she had 7 years before.

It sometimes happens, however, from a variety of causes, that the blood becomes congested in certain portions of the body. This means that the blood vessels in these parts become weakened, and the circulation in that section of the body becomes sluggish and stagnant. The consequence is that the dead matter in that part of the body is only partially carried away, and that but little of the new, vital matter is introduced there to build up and strengthen the tissues and nerves.

This condition invariably exists in all cases of female disorders. The dead matter retained in the circulation, which should have been expelled, causes irritation and inflammation of the delicate membrane, and oppresses the nerve centres. This condition is the cause of the grievous physical and mental suffering which accompanies female troubles.

To obtain relief it is evident that the first thing to be done is to get rid of the dead matter which is being held in the circulation. If this dead matter is allowed to remain there a species of blood poisoning will result and nature will endeavor to get rid of it by forming ulcers, tumors, etc.

The above explanation will also show why ORANGE LILY is so successful in curing this condition. It is a local treatment, and is applied direct to the affected organs. Its curative elements are absorbed into the congested tissue, and from the very start the dead matter begins to be discharged. A feeling of immense relief, both mental and physical, accompanies it, and the improvement is constant and positive. This feature of the expelling of the dead matter is always present to a greater or less extent, and in some cases it is so marked as to be amazing. The case described in the following letter is not exceptional:

Dr. Coonley—I am thankful to Mrs. F. V. Currah, your Canadian representative, for my health restored by your wonderful remedy. I have suffered for 17 years, but not so bad until 3 years ago. Then I had a doctor, who told me I had a tumor, and could live no more than a year. If I went through an operation I would not live through it. A year later I sent for him again, and he gave me up to die. My husband then sent for another doctor, who performed an operation, and it did me much good. I doctored with him 3 or 4 months, but became bad again that I thought I could live no longer, and I began to long to die. One day my husband came home and threw a slip of paper to me with Mrs. Currah's address and told me that I would die anyway. I could not lift a teacup without hurting me. Then the first doctor told me I was worse than ever. However, my husband sent for ORANGE LILY, and the third treatment brought away one tumor. Others followed, until 7 tumors had been expelled, 3 large ones and 4 small ones. I know if it had not been for ORANGE LILY I would have died, for I could not live much longer. I would have thought it cheap at one hundred dollars for a month's treatment, instead of one dollar. It is worth its weight in gold.—Mrs. Geo. Lewis, Huntsville, Ont.

The above letter is published with Mrs. Lewis' permission. All letters received are treated as being sacredly confidential, but occasionally some patient feels so grateful for being cured that she is willing to make the matter known for the benefit and encouragement of her suffering sisters.



I am so anxious that every suffering woman may satisfy herself, without cost to her, that ORANGE LILY will cure her, that I hereby make the following

Free Trial Offer.

I will send, without charge, to every reader of this notice who suffers in any way from any of the troubles peculiar to women, if she will send me her address, enough of the ORANGE LILY treatment to last her ten days. In many cases this trial treatment is all that is necessary to effect a complete cure, and in every instance it will give very noticeable relief. If you are a sufferer, you owe it to yourself, to your family and to your friends to take advantage of this offer and get cured in the privacy of your home, without doctors' bills or expense of any kind.

Should any lady desire medical advice or information on any special feature of her case, I will be happy to refer her letter to the eminent specialist in women's diseases, Dr. D. M. Coonley, President of the Coonley Medical Institute, Detroit, Mich., and he will answer her direct. Dr. Coonley is the discoverer of ORANGE LILY, and has had over 30 years' experience in the treatment of these diseases. No charge will be made for this medical advice. Address Mrs. Frances V. Currah, Windsor, Ont.

Ramsay's Paints
For Spring Painting.

Whether you are going to "touch up" the woodwork, paint the floors, brighten the porch, or make the whole house fresh and bright as new—get Ramsay's Paints.

There's the right paint—the right tint or color—for every use. Mixed just right—of the right ingredients—to wear right and look right.

62 years of paint making have taught us the right way to mix paints. 62 years in business prove that we mix them right.

Our Booklet tells lots about Paints and Painting worth knowing. We send it free.

A. RAMSAY & SON, - MONTREAL.
Paint Makers Since 1842.

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

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 50 cents.

PUFF Cochins, Golden, Silver, White, Buff Wyandottes, Dorkings, Houdans, White, Brown Leghorns, Spanish, Silver Hamburgs, Rouen ducks: Eggs, settings \$1. E. J. Lauria, Wolverson, Ont.

FOR sale: My Stay White Wyandottes, 15 for \$1, 100 for \$4. Cook's Buff Orpingtons, 15 for \$1. W. C. Dempsey, Redfernville, Ont.

PUFF Orpington eggs from imported Ontario and Industrial winners, \$2 per 15. Write for free catalogue describing them. J. W. Clark, Gainsville, Ont.

POULTRY, cat, dog and bird supplies. Large catalogue free. Morgan's Incubator Works, London, Ont.

THE Poultry Advocate is the best exclusive poultry monthly published in Canada, telling how to make most money out of chickens, turkeys, ducks and geese. Special attention to practical poultry-raising on the farm; 40 cents per year; sample free. Address Poultry Advocate, London, Canada.

CANADIAN Poultry Review, Toronto, Canada's leading poultry journal. Fifty cents a year; three years, one dollar. Sample free.

BARRED ROCKS Eggs for hatching from a pen headed by a cock bred by E. B. Thompson, N. Y., \$1.00 per setting; also from a pen of Thompson's pullets, \$1.50 per 15. Write to O. & J. CARRUTHERS, Cobourg, Ont.

A. E. SHERRINGTON WALKERTON, ONT. Importer and breeder of **BARRED P. ROCKS** exclusively. Eggs, \$1.00 and \$1.50 per setting of 12.

White Wyandottes and **Buff Orpingtons** Eggs \$1.50 per 15, cash with order. O. W. BEAVER, "Pinegrove," Prescott, Ont.

Eggs for hatching from a pen of 42 hens, B. P. Rocks, "National strain"; large, healthy birds, choice markings, persistent layers of large eggs, having run of orchard. Price \$1 per setting, or \$2 for 3 settings. Safely packed. O. W. C. SHEARER, Bright, Ont.

Fresh and Fertile Mongolian Pheasant Eggs FOR SALE at ten dollars (\$10) per hundred. Delivered to customers as laid. Canadian Pheasantry, Hamilton, Canada.



BRING UP THE CHICKS ON Myers' Royal SPECIALLY PREPARED Poultry Spice

and see what strong, sturdy chickens you have—see how fast they grow and fatten—see how few losses you have through sickness. It saves you money every day in the year. Write for literature and testimonials. MYERS ROYAL SPICE CO. NIAGARA FALLS, ONT. & N. Y.

Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and miscellaneous advertising. **TERMS**—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

WANTED—Salesmen for Auto-spray—best compressed-air hand sprayer made. Solendid seller. Liberal terms. Cavers Bros., Galt, Ont.



The other day there was sent to us from a United States firm, a beautifully illustrated catalogue of hardy ferns and flowers. Upon looking it over, we were struck with the great number of "wild" flowers and ferns advertised. In fact, the firm in question makes a specialty of selling "wild flower" seeds and roots. The thought was suggested, why is it, when town and city people are willing to buy such roots, at prices ranging from \$1.00 to \$1.50 per dozen, that so few people on farms ever think of going to the woods and bringing a few home for the garden? Is it because we do not appreciate these "shy, retiring" beauties, as Burroughs loves to call them? I think not; who is there who does not love our native flowers? Is the reason not rather that to many people the possibility of growing them in garden has never presented itself? We have looked upon them as "woody" things, that will grow in the "untamed wilderness" or not at all. That this idea is a fallacy, however, has been proved by many who have tried the experiment, and, indeed, when one really thinks about it, does it not stand to reason that these plants, indigenous to our country, should flourish in it, with a very little supplying of the necessary immediate conditions, quite as well as those more foreign specimens with which we are so fond of filling our gardens?

If you have trees in your garden, about which the soil has become at all "mucky," there to perfection will grow the hepaticas, those dainty little white and bluish tinted flowers, you know, that come out early in spring; dicentra (Dutchman's breeches), bishop's cap, trilliums (the so-called white and red "lilies" of the woods), the golden dog's-tooth violet (known sometimes as spotted-leaved "adder's tongue"), Indian turnip, white snakeroot, bush ferns of various kinds; in fact, one and all of the plants that flourish in similar

But I must stop, in order to make room for Mrs. Jack's excellent article on the snowball. In conclusion, may I say, try a wild-flower corner. It will not be as showy, perhaps, as the other part of your garden, but will lack nothing in daintiness and interest. First study the conditions under which you find the plants growing in the woods, then apply these conditions as far as possible in your garden. Of course the roots do best if transplanted in early spring or late fall; nevertheless, many of these plants will stand even midsummer moving, if it be carefully done. I have seen hepaticas, columbines, Indian turnips, and herb Robert, which, when transplanted even in their flowering season, grew right on, seeming to suffer nothing at all by the disturbance. Try a few some spare day.

FLORA FERNLEAF.

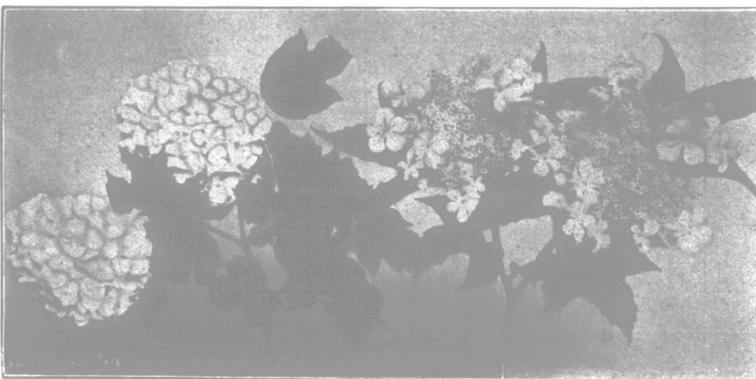
"Farmer's Advocate" office, London, Ont.

Viburnum Opulus and Sterilis.

By Mrs. Anna L. Jack.

So that queenly snowball blooming Was of her an emblem given, For its flower language whispers: "My thoughts are all of heaven."

It requires a stretch of imagination to understand why Viburnum sterilis should have gained such a meaning in the language of sentiment, for the flowers first appearing are small, greenish and irregular masses, devoid of beauty. A few warmer days of sunshine, however, cause the balls to expand, and the shrub comes a-bloom with heavy-headed clusters of pure white sterile flowers that are very decorative, but without perfume. It is of straggling habit, if left to itself, and apt to grow unshapely; so that it requires judicious pruning to bring an old plant into good form, and rubbing off surplus sprouts in a newly set-out one. Of late years, especially, during hot, dry seasons, it has been attacked by black aphides, and requires the application of



Viburnum Opulus and Sterilis.

situations in the woods. A more exposed situation will suit the scarlet columbine, which will flourish almost anywhere, and a damp corner will do finely for the mauve and purple asters that grow along the edges of swamps, boneset, feathery meadow rue, jewel weed (yellow tou-h-me-not) and such flowers. I have seen wild bittersweet climbing luxuriantly up veranda posts; also the wild clematis, beautiful even after the blossoms go, with its tufts of silvery down. Eben Rexford tells of a clump of golden-rod which, under cultivation in his garden, grew to a remarkable size, becoming an object of such striking beauty as to be admired of all beholders. Then what can be prettier than the cone-flower, the "Brown-eyed Susans" of the hay-

fields? kerosene emulsion before the "balls" have attained full size. If not attended to in time, they wither before opening into bloom. In England, this shrub is known by the name of Guelder rose, and the first plant was brought from Holland.

By contrast, we have the shrub in its wild state, Viburnum opulus, or high-bush cranberry. It is both ornamental and useful, bearing cymes of minute white flowers, surrounded by a row of large sterile blossoms. The flowers are abortive, but beautiful, and the foliage remains clean and abundant all the season on cultivated and well-cared-for plants.

The fertile flowers result in dark red berries that glow with color, and grow in large clumps of healthy-looking shrubs. Their fruit, if gathered, makes a piquant jelly, that is much esteemed to be eaten with game. It has been said that birds

did not eat this fruit; but during the past winter they were often seen pulling at the bunches, and, doubtless, eating the berries. Probably on account of the continuous snow, food was found to be scarce.

The plants attain a height of eight or ten feet, and keep their branches well above the snow line. In the shrubbery, it makes an effective background, and is interesting both in flower and fruit; the former being often adjudged as more beautiful than the cultivated form.

Vegetables for the Farmer's Table.

By Kathleen Merivale Darrel.

The first warm days of spring usually bring with them at least a slight loss of appetite, and a longing for something a little different from what one has been eating all winter. If those who cannot afford to buy hothouse vegetables will try the following recipes for preparing winter vegetables, they will, perhaps, not find it so trying to have to wait a while longer for the fresh garden produce:

Potato Puff.—Heat two cups of cold, mashed potatoes, and half a cup of milk or cream; season with pepper, parsley and celery, salt; beat two eggs, and stir into the potatoes; turn into a buttered baking-dish; sprinkle with grated cheese, and bake twenty minutes.

Potato Pie.—Place alternate layers of mashed potatoes and thin slices of beef in a bake-dish, having a layer of potatoes, dotted with butter, on top; sprinkle each layer with salt and pepper, and pour a very little gravy, seasoned with curry powder, over the meat; care must be taken not to use too much or the pie will be too moist; bake slowly for thirty minutes.

Escalloped Potatoes.—Fill a baking-dish with alternate layers of onions and potatoes, thinly sliced; sprinkle salt and pepper over each layer; partly fill the dish with milk, and dot bits of butter over the top. If raw potatoes are used, bake one hour; if cold, boiled, bake from twenty to thirty minutes.

Saratoga Potatoes.—Peel raw potatoes, and cut them in lengthwise strips, half an inch thick; dry between clean cloths, and fry a few at a time in deep, boiling fat; lift with a skimmer; sprinkle with salt; drain, and serve very hot.

Baked Cabbage.—Boil a small cabbage with a slice of bacon until done; chop finely, and mix with the following: Three eggs (well beaten), one and a half cups sweet milk, half a cup of boiled rice or macaroni, two tablespoons of butter, one chopped onion, one teaspoon of mustard, and salt, pepper, sage and summer savory to suit the taste. Turn into a buttered dish, and cover with bread crumbs, and bits of butter; bake three-quarters of an hour. Grated cheese alternated with layers of this mixture will result in a very appetizing dish.

Stuffed Onions.—Peel and parboil several large onions; drain, and set aside till cold. With a sharp knife, scoop out the center of each onion, taking care to leave rather thick walls about the cavity. Chop the onion taken out, with a little cold meat and bread crumbs; mix into it a little butter, and season with pepper and salt. Fill the onions with this mixture; place in a deep dish; pour a little meat stock about them, and bake half an hour.

Fried Onions.—Slice thinly, and soak in milk for a few minutes; dip in flour, and fry in deep, hot fat; drain, and serve.

Diced Carrots.—Cut in half-inch dice as many carrots as are needed; boil till tender, and drain. Make a cream sauce as follows: Rub together one tablespoon of butter and two of flour; add one pint of boiling water or hot milk, and stir until thickened; season with salt, pepper, and a dash of vinegar, and pour over the carrots. Parsnips, turnips and potatoes are all delicious, served separately in this sauce, and the yellow and white carrots and parsnips or potatoes and turnips makes a pleasing dish. For potatoes, the sauce may be flavored with chopped onions, celery seed, lemon juice or grated cheese.

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

GOSSIP.

Mr. D. H. Garbut, of Brampton, Peel Co., Ont., has in his stables 70 head of export beef cattle, said to be the best lot seen in that district for some time. If prices continue on the up-grade, these will bring a handsome sum of money.

At an auction sale, on May 14th, of Hereford cattle from the herd of G. H. Hoxie, Thornton, Ill., 32 head sold for an average of \$133.30. The highest price, \$625, was paid by Prof. Curtis, of the Iowa Agricultural College, for the ten-months-old bull calf, Thorn Creek's Perfection, sired by Perfection. Four sons of this sire brought an average of \$325. One of these was purchased by Mr. A. G. Leonard, General Manager of the Union Stock-yards, Chicago, and tendered to Prof. Curtis with the request that he be castrated and exhibited as a steer.

A published report, dated May 3rd, from the superintendent of the Jersey contingent in the dairy test at the St. Louis World's Fair, gives the yields of milk of some of the cows in the contest as follows: Eight of them, from 50 lbs. 10 ozs. to 60 lbs. 6 ozs.; six of them, from 46 lbs. 4 ozs. to 49 lbs. 14 ozs.; nine of them, from 40 lbs. 4 ozs. to 44 lbs. 3 ozs. None of them under pressure.

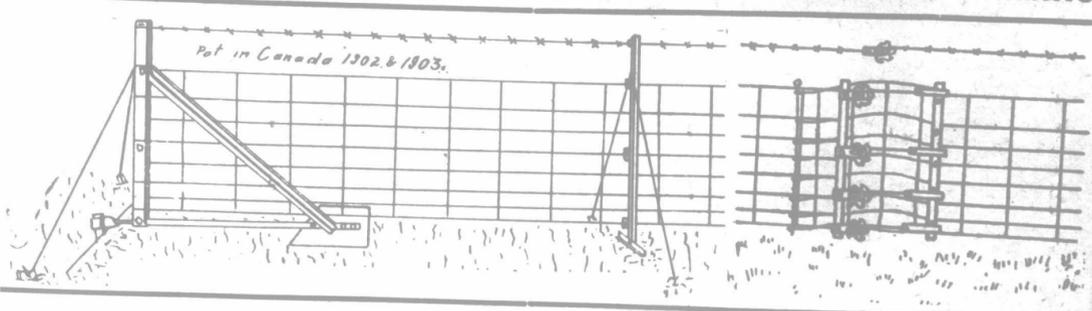
The public sale of 80 imported Large English Yorkshire sows and boars advertised by D. C. Flatt & Son, to take place at Hamilton, Ontario, on June 15th, promises to be one of the most interesting live-stock events of the kind this year in Canada. The hogs have been carefully selected from the best herds in Britain for their conformity to the ideal bacon type and their capability to produce the kind and quality of bacon the British market calls for. No expense has been spared in securing a uniformly good selection of the right sort. The grand lot brought out last year and disposed of at Hamilton were acknowledged by common consent to have been the best consignment of hogs of any breed ever offered at auction in this country. The present importation, we are assured, is even better, and those who attend this sale will have a rare opportunity of securing the best that could be found in the Old Country—the home of the breed. Considering the importance of the bacon-producing industry to the farmers of Canada, this importation ought to be eagerly sought after by breeders and farmers generally. The enterprising spirit that actuates these breeders to assume the expense and risk of bringing out such typical stock should receive commendation and practical encouragement by a large attendance and a liberal interest on the part of breeders throughout the Dominion. There is yet abundant room for improvement of the swine stock of this country, and the number of animals in this sale should be readily placed in the various provinces, where they may be of untold value in the founding and upbuilding of pure-bred herds, and the improvement of the general stock in the hands of farmers.

TRADE TOPICS.

THE PROVIDENT FARMER is one who looks ahead and lays his plans for the future. He does not wait until his grain is ripe before purchasing his binder twine. He studies the merits of each brand, reads the advertisements of each manufacturer, and decides that the Plymouth Cordage Co. makes as good twine as can be found anywhere for the money. Different grades are made to suit varying conditions, so that all may be suited. See the advertisement in another column.

FENCING is a necessity, and the material used is of numerous patterns, but the fence that the practical man wants is one that combines durability, utility and appearance in the greatest degree. Obviously, a fence built with No. 9 hard steel, coiled-spring wire for laterals, with hard steel No. 7 or 9 wire for stays, and locked together with cast steel locks, has all the requirements of a good fence from the manufacturer's standpoint. Such a fence put upon well-set posts will always be a useful and ornamental adjunct to the farm. These fences, and also a line of ornamental fencing and gates, are made and advertised by the Locked-Wire Fence Co., of London, Ont. Send for their catalogue.

THE PORTABLE FENCE solves the problem of ECONOMICAL FARMING



Now that seeding is over, you are up against the Fence Problem again. There is only one solution: Use **OUR PORTABLE FENCE** for Pastures and Cross Fences. Use **OUR STATIONARY FENCE** for Line Fence and all Permanent Fences. For particulars, write for our **CATALOGUE**. It tells all about the **ADVANTAGES OF PORTABLE FENCING.**

CANADIAN PORTABLE FENCE CO., LIMITED,
JARVIS STREET AND ESPLANADE, TORONTO.

Plymouth Binder Twine



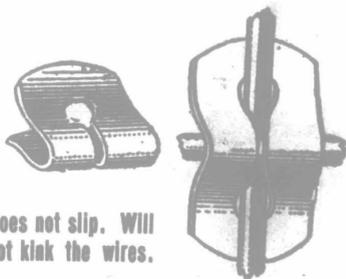
IS THE

Longest, Strongest, Most Even and Best.

Our celebrated brands are **Plymouth Special, Green Sheaf, Silver Sheaf, Golden Sheaf and Gold Medal.**

They bind the **maximum** number of sheaves with the **minimum** amount of trouble and expense. We invite farmers to prove this advertisement by counting the sheaves they bind with **Plymouth Twines.**

New Samson Lock.



Does not slip. Will not kink the wires.

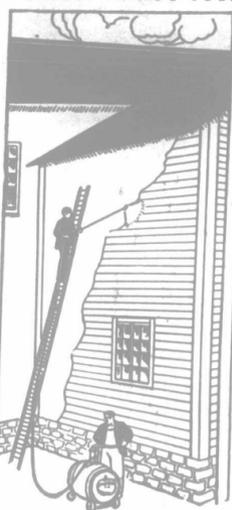
SAMSON LOCK WIRE FENCE

Strong, durable, substantial; positively the cheapest in the end. Its construction: Laterals all No. 9 Hard Coiled Spring Wire; stays, No. 7 and No. 9 HARD STEEL wire. Stays immovably united to laterals wires with the **NEW SAMSON LOCK**—the lock that will not slip up, down or sideways. Same as Lock Fences are "far and away the best." It's the Lock that does it. We also make a splendid line of **ORNAMENTAL FENCES and GATES.** Send for catalogue. Agents wanted. **The LOCKED WIRE FENCE CO., London, Ont. Ltd.**

THE SPRAMOTOR WILL DO THIS AND OTHER THINGS TOO.

A barn 40x60 x18 feet, with two gables—4,320 square feet of surface to cover with paint. This can be covered with 200 lbs. of fire-proof paint for \$18, and can be done in half a day by two men. It's as easy to spray your barn as your fruit trees, and about as quick. After you get the paint mixed you can paint your barn in an hour's time.

Spramoto Company
68-70 King Street, London, Ont.



Ferro Nervo

THE FRENCH NERVE TONIC. A positive Cure for all Nervous Disorders, irrespective of Cause, Duration or Condition, such as Nervous Prostration, Palpitation of the Heart, Sleeplessness, Mental Despondency, Impoverished Blood and all diseases arising from a Debilitated or Exhausted Condition of the Vital Forces. Price \$1 per box, or 6 boxes \$5. From your druggist or by mail. The Royal Chemical Co., Windsor, Ontario, Dept. F. A.

The famous Shorthorn bull, Marengo (69068), property of Mr. Philo L. Mills, Ruddington Hall, Nottingham, England, has had to be slaughtered, owing to a diseased knee. Marengo was born Feb. 6th, 1895, bred by Mr. Wm. Duthie, Collynie, Aberdeenshire. His sire was Scottish Archer, and his dam, Missie 118th, was a daughter of William of Orange. Marengo was a grand specimen of a Shorthorn bull, and proved a prolific and prepotent sire. He was a very successful prizewinner. As a yearling, a two-year-old and a three-year-old, he won 24 prizes at leading English shows, including the championship at the Royal, at Birmingham, in 1898.

GOSSIP.

"How much better off a man would be if he would take his wife's advice!" "Yes," answered Mrs. Torkins, "I have told Charley time and again not to bet on horses that don't win. But he will do it."

That the fall wheat crop is not a failure everywhere in Ontario may be learned from the statement of the Brampton Banner and Times, that in the northern parts of Peel County, the prospects are for the best crop in years, the wheat having wintered safely, and the growth being remarkable.

At a dispersal sale, on May 11th, of the herd of Jersey cattle belonging to Mr. H. H. Howard-Vyse, of Stoke Place, Buck, England, the 32 head sold made an average price of \$110 each. The best price, \$220, was paid for the cow, Majorica, by Mrs. Watson Kennedy. His Majesty the King became the possessor of Madra 6th and Lady Pogie, at 30 guineas and 33 guineas, respectively. Thirty-one guineas was the highest price paid for a bull.

At the annual sale under the auspices of the Territorial Pure-bred Cattle Breeders' Association, held in Calgary on May 11th and 12th, 125 Shorthorn bulls were sold at an average of \$105, and 64 females at an average of \$65.50; 76 Hereford bulls averaged \$127.50, and the Hereford females realized an average of \$91. The ranchers do not want a bull less than eighteen months old, and he should be well grown, and must be strong enough to rustle with the herd and hold his own with other bulls on the ranch. The large number of yearlings offered by Shorthorn breeders accounts, in part, for the lower average as compared with Herefords. As an instance of this, one breeder offered four sons of Trout Creek Hero, calves of excellent quality, from twelve to fourteen months old. They were sold at prices ranging from \$55 to \$70. Immediately afterwards, the same breeder offered a number of two-year-olds, not of as good quality or breeding, but big-framed, strong-boned cattle; these sold readily at prices ranging from \$125 to \$135.

Bishop Potter was preaching one Sunday evening in a small town in the Adirondacks, where he had a summer camp. When the services were over, a tall, gaunt man, with the air of a backwoodsman, came up to the Bishop with outstretched hand. "I've heard ye preach twice afore this," he said, and I like yer preachin'. I alluz learn somethin' new from ye. I rid ten mile to-night to hear ye, an' I'd rid ten mere, fer as usual, I heard somethin' new to-night that I never knowed afore." "Well, I am glad of that," said the Bishop, shaking the outstretched hand; "and what was it you learned to-night?" "Why, Bishop, I found out fer the first time in my life that Sodom and Gomoorah wuzn't twins."

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

GET THE BEST

WEBSTER'S INTERNATIONAL DICTIONARY

English Geography
Biography Fiction, Etc.

25,000 NEW WORDS, Etc.
New Gazetteer of the World
With over 25,000 entries based on the latest census.
New Biographical Dictionary
Over 10,000 names of noted persons, birth, death, etc.

Edited by W. T. HARRIS, Ph.D., LL.D.,
United States Commissioner of Education.

New Plates. 2380 Quarto Pages.
Rich Bindings. 5000 Illustrations.

Should be in Every Home, School, and Office

Also Webster's Collegiate Dictionary with 1200 pages, 1400 Illustrations. Size: 7x10x2 1/2 in.

A Special Thin Paper Edition
Printed from the same plates as regular edition. It has limp covers and round corners. Size: 6 1/2 x 9 1/2 x 1 1/2 in.

FREE, "A Test in Pronunciation," instructive and entertaining. Also illustrated pamphlet.

G. & C. MERRIAM CO.,
Publishers, Springfield, Mass.

One Pair of



are the only tools needed to remove, attach or repair, when necessary, the

DUNLOP DETACHABLE BICYCLE TIRE.

Every pair stamped with the trademark, two hands, and guaranteed for a year.

The Dunlop Tire Co., Limited,
TORONTO, MONTREAL, WINNIPEG,
VANCOUVER, ST. JOHN, HALIFAX.

SANITARY HEATING

is an absolute necessity for the home. It implies pure air, an even distribution of heat, well-ventilated bedrooms, and the absence of dirt and dust. How to secure this by using our Hecla Furnace is described in our booklet, "About Heating" which will be mailed upon request.

Clare Bros. & Co., Limited,
PRESTON, ONT.

BISSELL'S STEEL ROLLER.

6, 8, 9 and 12 foot widths. The favorite rollers for all the Provinces. Write for full description and reasons why Bissell's are the best. Address on



T. E. BISSELL, Dept. W., Elora, Ont.

ABORTION RETENTION OF PLACENTA and Failure to Breed

Kellogg's Condition Powder

is a positive cure for these diseases. Prevents scours in calves and garlic in milk. Indorsed by the Iowa Agricultural College, Ames, Ia., and hundreds of the most prominent breeders. Write for booklet giving full information, price list and testimonials. Address

H. W. Kellogg Company, Dept. Y, St. Paul, Minn.

COOPER SHEEP DIP

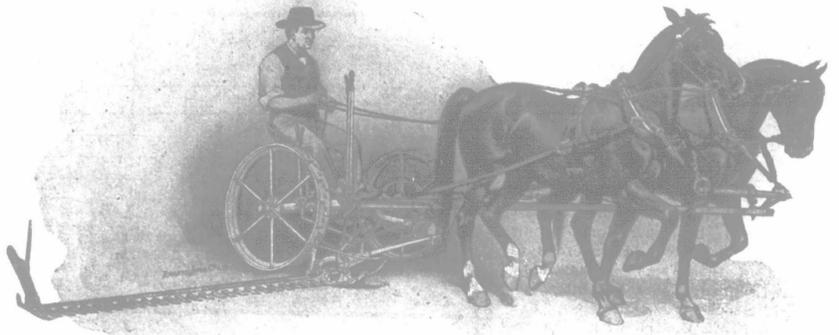
Standard of the World for 60 years. Used on 250 millions annually. One dipping kills Ticks, Lice and Nits. No smell. Keeps flock clean a long time. Increases growth of wool.

Dipping Tanks at cost.
Send for Pamphlet to Chicago.

If local druggist cannot supply send \$1.75 for \$2 (100 gal.) pkt. to

EVANS & SONS, Ltd. Montreal and Toronto.
W.M. COOPER & NEPHEWS, Chicago, Ill.

ON YOUR FARM, BE IT LARGE OR SMALL, YOU HAVE NEED FOR A GOOD MOWER.



"MASSEY-HARRIS" MOWERS EXCEL IN EASE OF OPERATION, SCIENTIFIC CONSTRUCTION, QUALITY OF MATERIALS, EFFECTIVENESS OF WORK. THEIR FAME IS WORLD-WIDE AS TO LIGHT-RUNNING QUALITIES, AND FOR EFFECTIVE AND CLEAN WORK IN ALL KINDS AND CONDITIONS OF GRASS. MASSEY-HARRIS MOWERS ARE SUPPLIED IN WIDTHS FROM 3 FT. 6 IN. TO 7 FT.

**LIGHTEST DRAFT
CLEANEST CUTTING**

**SMOOTHEST RUNNING
LONGEST WEARING**

MASSEY-HARRIS COMPANY, LIMITED,
AGENCIES EVERYWHERE. TORONTO, CANADA.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to the "Farmer's Advocate" are answered in this department free.

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1 must be enclosed.

Miscellaneous.

ROLLING BARLEY.

A new subscriber wishes to know whether it is best to roll a field of barley before it comes up, or after.

Ans.—We should say after it comes up.

CUTTING WILLOWS.

Will you kindly let me know the best time to cut willows, so as to prevent suckering from the roots?

Ans.—After the first flush of the season's growth, from June 15th to July 15th.

DIARRHOEA IN TURKEYS.

I raise from 40 to 50 turkeys every year, and have no trouble with them when small, but when they are almost full grown, they take diarrhoea, and nothing I have ever tried has prevented them from dying.

Ans.—Diarrhoea is caused by stagnant water, sour food, lack of grit, exposure to cold, wet, close, or drafty quarters, sloppy food, etc. Try to make conditions for turkeys as natural as possible; that is, give plenty of room for range, pure water and clean quarters, provide a roosting place in a shed, rather than in a close or drafty henhouse. When attacked with diarrhoea, give scalded milk to drink, feed boiled rice, hard boiled eggs, and stale bread crumbs; use black pepper freely. Douglas mixture, a patented poultry remedy, is also good. Sloppy food and stagnant water are generally the causes of this disease.

LINE FENCING—DITCHING.

1. There are 150 acres next my farm of 100 acres. One hundred acres are cleared and fenced; 50 acres being bush and to the side of me, not fenced on the road or line, and the owner refuses to fence the line between him and me, or the next neighbor adjoining it. He has the whole 150 acres rented, and renters take wood off this 50 acres. The owner claims that as long as it lays to commons, or is not fenced on the road, he does not have to fence the line. Can I make him build the fence? If so, how should I do it?

2. I have my place tiled; but the water off this 150 acres runs in on mine and floods it for a long time. Have I to put up with that, or can I make him make drainage for the water off his land? He will have to drain through my land.

Ans.—1. We do not see that you are in a position to do so.

2. We think you cannot compel him to provide the desired drainage.

RIGHTS OF WAY.

J. A. Govenlock, Ont.—We have considered the questions you submit, but find that in view, especially, of the fact that there are documents in the case, and that the exact wording of such documents must be looked at, we have to advise that the matter be submitted to a solicitor in the regular way, with the papers, and a personal consultation had with him.

WINDMILLS.

I would like you to send me the plan of a homemade windmill.

Ans.—There are so many well-constructed windmills on the market that we do not consider a person's time would be well spent making a homemade machine. Notice some of the mills advertised in these columns, and write the makers for particulars.

TRIMMING CEDAR HEDGE.

When is the proper time to trim a cedar hedge? Would it hurt it to do it right away, if needed?

Ans.—A cedar hedge can be trimmed any time from early spring until the middle of June, or even later. Many trim twice. No harm would come of trimming at once.

DESTROYING WEEDS—GAPES.

1. What is the best way to kill ground-ivy in the lawn?

2. Is there a simple way to keep the weeds under on a gravel roadway in the front of a house, and also the grass from encroaching from the lawns?

3. What is the cause of gapes in incubator chickens fed on dry food, not much meat?

Ans.—1. We presume bindweed is meant. If it is not established in too large plots, smother it out with a pile of straw, manure, or boards. If it is well established, we would recommend spraying with copper sulphate, as described in another column for mustard, etc.

2. The best application we know of for this purpose is gas lime, obtained from the manufacture of illuminating gas.

3. The chicks have contracted the trouble through having been in contact

with affected fowl, or from having eaten earthworm or other hosts of the gape-worm eggs. Birds affected with gape-worms, which are fastened in the wind-pipe, frequently expel in a fit of coughing whole worms full of eggs. These worms are eagerly devoured by other fowl, with the result that the disease is spread. In other cases, the earth-worms are infested with eggs of the gape worm, which upon being eaten develop the disease. Wherever the disease is prevalent, the ground should be sprinkled with fresh slaked lime, at the rate of a bushel to every two hundred square feet of ground.

CORRECT RULE FOR MEASURING HAY.

In your issue of May 5th I see an article headed "Weight of Hay," and as I have been in the habit of both buying and selling hay by measurement for many years, it may not be out of place to give the rule for the benefit of your readers, which is simply 512 cubic feet to the ton. This would make the quantity in discussion a trifle over 5 1/2 tons.

MAKING HAIR GROW.

1. Could you give me a prescription for an ointment to make horse's mane grow? Hair is abundant, but only five inches long.

Ans.—We do not recommend any treatment to make the hair of the mane or tail grow longer. The length mentioned is long enough, and if too thick, comb it out a little. There is no value in long hair.

TRADE TOPIC.

EMPIRE SEPARATORS.—One of the finest booklets that we have ever seen is being sent out by the Empire Cream Separator Co., who have instituted the Empire Way in dairying. The cover is a delightful picture of a boy going fishing, whistling merrily as he goes. The booklet is illustrated throughout with engravings in keeping with the subject matter, and the matter presents the cream separator in a way never before attempted. We advise every one of our readers who is at all interested in dairying to send for this booklet, and learn about the Empire Way. It is sent free to every one who asks for it, and it is worth sending for. There is more separator information in it than was ever before published in similar work, and it is the kind that it is profitable for dairymen to acquire. Don't fail to send for it. Address Empire Cream Separator Co., Bloomfield, N. J.

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

GOSSIP.

Mr. A. D. McGugan, Rodney, Ont., from his excellent herd of Scotch-bred Shorthorns, contributes to the combination sale to be held at Hamilton, Ont., on June 28th, 16 richly-bred females of popular Cruickshank, Marr and Campbell-bred families, among which are two Missies, eight Roan Ladys, two Urys' two Minas, one Miss Ramsden, and one Claret. Included in this offering is the imported four-year-old cow, Scottish Red Lady, by the Duthie-bred Scottish Prince, of the Cruickshank Princess Royal tribe, and her ten-months-old heifer calf by Imp. Aberdeen Hero, the stock bull in service in the herd. These are of the Marr-bred Roan Lady family, and the other half dozen of the same family are by such richly-bred sires as Abbotsford, of the Cruickshank Village Bud tribe, and Allan Gwinne, by the great Star of Morning, and a number of them are forward in calf to Imp. Aberdeen Hero, by Reveller, a Marr Roan Lady bull, bred by Mr. Duthie. The Missies are by Lord Lavender, a Cruickshank Lavender, by the Sittyton Secret sire, Sittyton Stamp (imp.); and Knight of Grey, by Brownell, of the Crimson Flower sort, by Imp. Premier Earl. The Minas are by Abbotsford and Earl Buckingham, of another excellent Cruickshank family, and the other members in Mr. McGugan's offering are equally well bred, making altogether a very valuable contribution to this attractive sale, which everything indicates will be the most important sale of the year in this country.

The British Royal Commission on tuberculosis, now at work, intends to pursue its investigations to conclusive results. The questions the Commission is seeking to decide once and for all are: (1) whether human tuberculosis and bovine tuberculosis are the same, and (2) whether they are inter-communicable, and if so, how far?

Similar investigations have been carried out officially in Germany and in the United States, and unofficially in some other countries, and varying results have been arrived at. The British Commission, while giving due weight to these inquiries, has not allowed them to affect its experiments one way or the other. The Commission has taken nothing for granted, and accepts nothing as proved which the present experiments do not place beyond all possible doubt. At the farms where the experiments are taking place the Commission has at its command in a magnificent laboratory every appliance known to science which can aid in solving one of the most important problems for mankind generally.

For obvious reasons the experiments must take a long time to complete. The Commission must prove by other means than direct inoculation of a human being whether bovine tuberculosis can be transmitted to man, and every one of many stages requires numerous experiments. Again, in the inoculation of an animal it is impossible to tell how long the disease will take to develop. It is this uncertainty, pervading as it does the whole of the investigations, which makes it difficult to forecast the probable duration of the experiments.

The same uncertainty enters into the results. Since the experiments began many discoveries which were at the time held to be of the highest importance, and were in fact very important in the particular stage of the inquiry, have been modified by later developments, and it is therefore altogether undesirable to talk of results until the experiments have run their full course.

BOOM IN HEREFORD CATTLE.

The Herefords appear to be experiencing a period of encouraging prosperity. They are popular both at home and abroad, and the report of the breed society for the past year indicates that the position continues to steadily improve. In 1903 the numbers exported were 110 to the United States, 161 to South America, 32 to South Africa, 5 to Australia, and 4 to British East Africa, and at the Society's auctions 134 bulls realized £3,974, or an average of nearly £30. It is perfectly evident from these figures that the valuable white-faced breed of beef cattle is held in high esteem wherever beef production is a leading feature in the farming system, and that the pure-bred strains have not been in such keen demand for many years.—[British Exchange.

Healthy Kidneys, Pure Blood.

By Means of the Kidneys Only Can the Blood be Purified, and the Kidneys are Kept Healthy by

Dr. Chase's Kidney-Liver Pills.

At this season of the year the kidneys are always sure to be more or less deranged.

The work of filtering from the blood the poisonous impurities which result from the artificial winter life is too much for them, and spring finds the blood loaded with waste matter and the kidneys in a sluggish and clogged condition.

The effects are felt throughout the entire system. The liver, in sympathy with the kidneys, becomes slow and torpid in action, the bowels are constipated and digestion is impaired, giving rise to headaches, dizzy spells and feelings of discomfort.

The quickest and most satisfactory way of setting the kidneys right is the use of Dr. Chase's Kidney-Liver Pills.

This great family medicine is endorsed by the many thousands who have tested its merits. Acting as it does on kidneys, liver and bowels, it is not only prompt to relieve, but thorough and lasting in the benefits which it bestows.

Next to a personal test of this preparation, probably the best evidence of its value is found in the enormous sale which it has throughout the length and breadth of this continent.

Dr. Chase's Kidney-Liver Pills, one pill a dose, 25 cents a box, at all dealers, or Edmanson, Bates & Co., Toronto. To protect you against imitations, portrait and signature of Dr. A. W. Chase, the famous recipe-book author, are on every box.

DO YOU KNOW THAT WORN-OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER? NOW IF YOU HAVE A PIECE OF LAND THAT WONT GROW ANYTHING BUT WEEDS, TALK WITH US ABOUT IT AND LET US SUGGEST THE RIGHT FERTILIZER. WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE SO YOUR LAND WILL PAY. CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED. AGENTS WANTED FOR TERRITORY NOT TAKEN UP. THE W.A. FREEMAN CO. LIMITED HAMILTON ONTARIO

Clydesdales & Hackneys

We handle only the best of their representative breeds. We have on hand more good young stallions and mares than ever before. Large importation just arrived. Correspondence and inspection invited. Farm only ONE MILE from station. om

Graham Bros., Claremont, Ont.

Advertise in the Farmer's Advocate

IMPORTANT AUCTION SALE

OF 80 HEAD OF IMPORTED LARGE ENGLISH

YORKSHIRES

To take place at the STOCK-YARDS SALE PAVILION, HAMILTON, ONTARIO, on

WEDNESDAY, JUNE 15TH.

This lot has been selected with great care from the leading herds of England and Scotland. Parties desiring to secure show stock for St. Louis or Canadian fairs will find in this offering what they require. We promise to show those attending the sale the best lot ever put together in America. Sale to commence at one o'clock sharp. Catalogues mailed on application to

D. C. FLATT & SON, Millgrove, Ont. Auctioneers: Thos. Ingram, Guelph; S. Frank Smith, Clappison's.

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

GOSSIP.

It is foolish not to profit by the failures of others, but it is better to try and fail, than to fail to try just because somebody says there is no use.

Messrs. S. D. Crandall & Sons, of Cherry Valley, Ont., write that they have purchased a number of Yorkshire pigs from D. C. Flatt & Son, Millgrove, in the past year, which have turned out very satisfactory, and wish to state that they have lately received another fine young sow, which at ten weeks old weighed 67 lbs. Such stock certainly reflects credit on the breeder, and is a source of pleasure and profit to the buyer.

The joint sale of registered Shorthorn cattle and high grade cows belonging to Messrs. John Kelly and Jas. K. Campbell advertised to take place on Wednesday, June 1st, at Mr. Kelly's farm, near Shakespeare Station, G. T. R., and six miles from Stratford, should claim the attention of farmers and breeders wanting good, useful cattle of the right type, and bred on approved lines. High-class Scotch-bred bulls have been continuously used in these herds for many years, and the stock has been well cared for, being liberally fed, but not pampered.

If the news about much winter-killing of fall wheat in south-western Ontario be somewhat dampening to the spirits, nothing of the kind characterizes the news from Manitoba and the Northwest. Reports from Winnipeg state that the increased area over last year under crop will be 12 per cent. Seeding is practically completed, and the weather considered favorable. A conservative estimate places total acreage in whole Northwest under crop at something over four million acres, probably 4,800,000 acres.

An Irishman, walking through a fashionable street in London, noticed beside a door a bell. Underneath the bell were these words: "Please ring the bell." Paddy went and rang the bell. In a second a powdered little footman appeared and asked him what he wanted. "Nothing," said Paddy, "but I rang the bell because it says so." "Oh!" said the stinky with a smile, "I see you've come from the country where nannygoats grow on gooseberry bushes." "Yes," said the Irishman, "but in London there are more wonderful sights. You've only to ring the bell and a monkey pops out."

A prominent educator, in telling of his early struggles, recounts that he once taught school in a district where he kept "bachelor's hall," the neighboring farmers supplying him with food. One day a young boy came running breathlessly toward him. "Say, teacher," he gasped, "my pa wants to know if you like pork." "Indeed I do like pork," the teacher replied, concluding that the very stingy father of this boy had determined to donate some pork to him. "You tell your father if there is anything in this world that I do like it is pork." Some days passed and there was no pork forthcoming. At last the teacher met the boy alone in the school-yard. "Look here, John," he said, "how about that pork?" "Oh," replied the boy, "the pig got well."

The late James McNeill Whistler had a French poodle, of which he was extravagantly fond. This poodle was seized with an affection of the throat, and Whistler had the audacity to send for the great throat specialist, Mackenzie. Sir Morrell, when he saw that he had been called in to treat a dog, didn't like it much, it was plain. But he said nothing. He prescribed, pocketed a big fee, and drove away. The next day he sent post haste for Whistler. And Whistler, thinking he was summoned on some matter connected with his beloved dog, dropped his work and rushed like the wind to Mackenzie's. On his arrival Sir Morrell said, gravely: "How do you do, Mr. Whistler? I wanted to see you about having my front door painted."

GRAND COMBINATION SALE

IN SALE PAVILION, STOCK-YARDS, HAMILTON, ONT., ON

TUESDAY, JUNE 28.

62 HEAD
IMPORTED
AND
CANADIAN-BRED
SHORTHORNS.



56 FEMALES,
6 BULLS.

CONTRIBUTORS:

W. C. Edwards & Co., Rockland.
A. D. McGugan, Rodney.
Chas. Rankin, Wyebridge.
D. Milne, Ethel.
T. E. Robson, Ilderton.
Hudson Usher, Queenston.

A choice collection of high-class individuals in type and breeding. For catalogues and all information, address

Auctioneers: CAPT. T. E. ROBSON, THOS. INGRAM.

HUDSON USHER, Queenston, Ont.

AN UNRESERVED AUCTION SALE OF
Registered Shorthorns

and High-grade Cattle, will be held at
MR. JOHN KELLY'S, within 2½ miles of Shakespeare, on Wednesday, June 1, '04, as follows:

12 registered females, 1 registered bull calf, 4 grade cows.
Sale to commence at 1.30 p. m.
TERMS OF SALE.—8 months' credit upon approved security;
5% per annum off for cash. Positively no reserve.
Conveyance will meet 9 o'clock train from the west; also noon train from the east, at Shakespeare on day of sale.

JOHN KELLY, Shakespeare, } Proprietors. **THOS. TROW**, Auctioneer, Stratford, Ont.
JAS. K. CAMPBELL, Palmerston, }



GOSSIP.

Wildwood Brino, the Standard-bred trotting stallion whose illustration appears on another page, the property of Thos. Cole, Owen Sound, is one of the best horses of his breed to be found in Ontario. He is of most beautiful conformation, with the best of timber, and true, easy gait. He carries sufficient size, and is well knit in every muscle. Last fall at the Dominion Exposition he was only beaten by Miss Wilks' valuable colt, Rex W. A horse like Wildwood Brino is a boon to the district in which he stands, and should get the pick of the mares about Owen Sound, as horses of his breeding and type are all too scarce in this Province.

OFFICIAL RECORDS OF HOLSTEIN COWS.

The following cows have been accepted for entry in the Canadian Holstein-Friesian Record of Merit since my last report. All the records given were made under the official supervision of Prof. Dean, of the Ontario Agricultural College, and all the weights and tests are sworn to by the representative of the College who conducted the tests. All are for a period of seven days: Lizzie Pietertje De Kol (2376) at 6 years 6 months of age: Milk, 393.4 lbs.; butter-fat, 14.61 lbs.; equivalent butter, 17.05 lbs. Owner, W. H. Simmons, New Durham. Little Katie Kent 3rd (2375) at 6 years 9 months 2 days: Milk, 374 lbs.; butter-fat, 13.04 lbs.; equivalent butter, 15.22 lbs. Owner, W. H. Simmons. Jemima Cubana (2694) at 5 years 22 days: Milk, 426.7 lbs.; butter-fat, 13.33 lbs.; equivalent butter, 15.56 lbs. Owner, W. H. Simmons. Bessie Pietertje De Twin (2699) at 4 years 11 months 4 days: Milk, 401.8 lbs.; butter-fat, 14.02 lbs.; equivalent butter, 16.36 lbs. Owner, W. H. Simmons. Daisy Banks 6th (2712) at 4 years 6 months 10 days: Milk, 409.3 lbs.; butter-fat 12.81 lbs.; equivalent butter, 14.95 lbs. Owner, Jas. Rettie, Norwich. Jemima Posch (3512) at 2 years 6 months 24 days: Milk, 336.1 lbs.; butter-fat 9.24 lbs.; equivalent butter, 10.78 lbs. Owner, Jas. Rettie, Inthe. Jewel Metchthilde 2nd (3514) at 2 years 6 months 8 days: Milk, 362.6 lbs.; butter-fat, 9.28 lbs.; equivalent butter, 10.83 lbs. Owner, Jas. Rettie, Maple Grove. Belle (4025) at 1 year 9 months 28 days: Milk, 323.3 lbs.; butter-fat, 10.36 lbs.; equivalent butter, 12.09 lbs. Owner, H. Bollert, Cassel. G. W. Clemons, Secretary.

The New Century
American Cream Separator



Never fails to give increased profits to users.

It is absolutely cleanly.

Combines best methods with lowest cost.

Thousands are using them and are satisfied.

Investigate their advantages.

Write for our catalogue.

C. RICHARDSON & CO.,
P. O. Box 1048. ST. MARY'S, ONT.

WOOL

E. T. CARTER & CO.,

TORONTO, ONT.

HIDES AND SKINS

FONTHILL STOCK FARM

50 SHIRE HORSES

AND MARES to choose from.



MORRIS & WELLINGTON,

FRONTHILL, ONTARIO.

FOR SALE: CLYDESDALE STALLION, 3 years old, registered (4151) Vol. 13, Clydesdale Studbook. Apply to **WILLIAM WOODLEY**, Dundas, Ont., near G. T.R. Station.

ABERDEEN-ANGUS.

No bulls for sale at present. Will sell some females bred to Imp. Klondyke of the Burn. Drumbo Station. **WALTER HALL**, Washington, Ont.

SAVE YOUR HAY & SAVE EXTRA LABOR

SPECIAL LABOR-SAVING TOOLS

MAXWELL TEDDER, SIDE DELIVERY RAKE & LOADER

MAXWELL

ST. MARY'S, ONT. CANADA

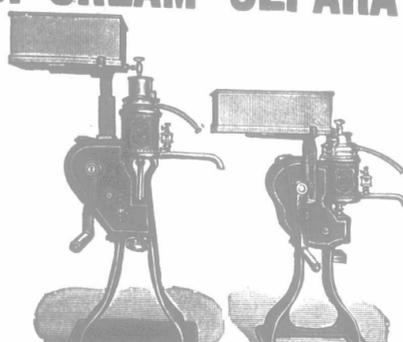
IS THERE AN AGENT IN YOUR DISTRICT? IF NOT ADDRESS THE FIRM DIRECTLY

DAVID MAXWELL & SONS, ST. MARY'S, ONTARIO, CANADA.

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

U S U S U S U S U S U

U. S. CREAM SEPARATORS



The above illustrates the 1904 Model U. S. Separators, Nos. 5, 6 and 7, alongside our former style, and shows at a glance one of our latest and important improvements:

THE LOW DOWN MILK RECEIVING CAN.

Without in any way lessening the Strength or Durability of the machine, we have been able to shorten the frame and obtain a Low Can separator that is very easy to pour milk into, even by a short person. Write for catalogue which more fully describes this and the other improvements and advantages of the U. S.

Remember that in buying the U. S. you get the separator that

HOLDS WORLD'S RECORD FOR CLEAN SKIMMING

with average test for 50 consecutive runs of .0138.

We have the following transfer points: Portland, Me., Sherbrooke and Montreal, Que., Hamilton, Ont., La Crosse, Wis., Minneapolis, Minn., Chicago, Ill., Sioux City, Ia., Omaha, Neb., Kansas City, Mo. Address all letters to

Vermont Farm Machine Co., Bellows Falls, Vt.
365

U S U S U S U S U S U

GOSSIP.

The U. S. Treasury Department has recognized the "Percheron Register" in connection with the free importation of animals for breeding purposes. This action is taken upon the recommendation of the Secretary of Agriculture that Percheron horses included in the Percheron Register, published by the Percheron Register Company, for use for breeding purposes, be imported free of duty. Upon the recommendation of the Department of Agriculture, the Treasury Department has recognized the "Austrian Register" as a register for Australian horses, from which certificates of pedigree may be issued. This contemplates thoroughbred horses bred in Australia and recorded in the Australian Studbook.

HORSES SHOULD BE GOOD WALKERS.

Too much attention is paid to the ability of horses to trot and too little to their walking capacity. This is particularly true in respect to farm horses. Some horses are good trotters, but are extremely poor walkers, and as most of the work on the farm is done on a walk, it is very evident that a farmer should get a good walker rather than a good trotter. A horse that has been accustomed to walk slowly can never be broken of it, for he will break into a trot as soon as urged beyond his usual gait. There is a vast difference in the amount of ground covered by a slow-walking team and one that has been trained to walk at a good brisk pace, and the time thus lost will soon offset the difference in price between a cheap team and a first-class span of farm horses.—[Ex.]

Spavin and Ring-bone

Once hard to cure—easy now. A 45-minute treatment does it. No other method so easy, quick and painless. No other method sure.

Fleming's Spavin and Ringbone Paste

cures even the very worst cases—none too old or bad. Money back if it ever fails. Lots of information if you write. Book about Spavin, Ringbone, Curb, Splint, Bog Spavin and other horse troubles sent free.

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

Dr. Page's English Spavin Cure



For the cure of Spavins, Ringbones, Curbs, Splints, Windgalls, Capped Hoof, Strains or Bruises, Thick Neck from Diets, Ringworm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blister. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by DR. FREDRICK A. PAGE & SON, 7 and 9 York Street, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:

J. A. JOHNSTON & CO., DRUGGISTS,
171 King Street East, - Toronto, Ont.

A New Record

For draft geldings of any breed was made in the Chicago Auction Market on March 23rd last, when a high-grade Clydesdale Gelding was sold for \$665 to Messrs. Armour & Co.

We are the oldest and largest importers of **Clydesdales** in America, and are now offering extraordinary bargains in this breed, and also in PERCHERONS, SHIRES, SUFFOLKS, HACKNEYS and GERMAN COACHERS.

ALEX. GALBRAITH & SON,

JANESVILLE, WIS. BRANDON, MAN.

If your district is not supplied with a good stallion, write at once to MR. JAMES SMITH, Manager Manitoba Branch.

TRADE TOPICS.

NEW ONTARIO is now arresting the attention of the whole emigrating English-speaking world. Its resources are being rapidly exploited. Its homesteads are rich in timber, and its soil is pronounced excellent. Immense mineral resources abound throughout the whole region, and its supplies of fish and game are the most abundant in America. This whole new country is divided into five districts of settlement: Algoma, Thunder Bay, Rainy River, Nipissing and Temiskaming. Everyone interested in the development of Canada should write the Hon. E. J. Davis, Commissioner of Crown Lands, Toronto, for maps and illustrated descriptions.

"THE REPOSITORY"

WALTER HARLAND SMITH, Prop.



Cor. Simcoe and Nelson Sts., TORONTO.

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

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

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

LARGEST STUD IN THE WORLD OF AMERICAN-BRED PERCHERON, SHIRE and HACKNEY STALLIONS AND MARES



Won more First Prizes and Gold Medals in past 3 years than any firm in America; ages 2 to 6 years. Prices to Canadian buyers for next 30 days will run from \$600 to \$1,200 for choice of my barns, except 2 horses which are not for sale; also R. R. fare to my place and expenses while here. Time of payment made to suit customers. Every stallion sold to get 80 per cent. of mares in foal, also a safe delivery.

LEW W. COCHRAN,
607 West Main St., CRAWFORDSVILLE, IND.

FOR MUSIC LOVERS.—

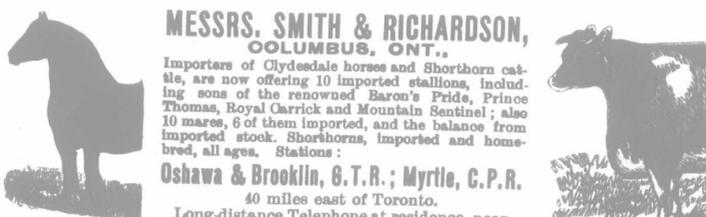
The construction and care of pianos is every year becoming a subject of increasing interest in thousands of farm homes, where good music is appreciated. As farmers become more well-to-do, and their musical ideas more highly developed, the piano supersedes the cabinet organ. How to secure and properly care for a musical instrument is, therefore, very important. In this connection we would commend to our readers a study of the beautiful pamphlet recently issued by Gourlay, Winter & Leeming, of Toronto, Ont., manufacturers of the Gourlay piano. This booklet describes piano construction, and gives a practical and very accurate idea of their mechanism and structure. The closing page, on "The Care of the Piano," is particularly valuable, and observance of the hints given will prevent many a good instrument from being ruined or prematurely worn out. A post card or note addressed to the firm would doubtless secure a copy of the pamphlet mentioned. It will repay perusal.

ABSORBINE

REMOVES Puffs, Tumors, Thorough Pin, Capped Hoof, Swellings, etc., without laying the horse up or removing the hair, strengthens strained and weak tendons, restores the circulation, allays all inflammation. Cures tumors, hernia, weeping sinew, etc., on human family. Price, \$2 per bottle. Circulars with testimonials free.

Manufactured by
W. F. YOUNG, F. D. F., Springfield, Mass.
LYMAN SONS & CO., MONTREAL,
AGENTS FOR CANADA.

Imp. Clydesdales and Shorthorns



MESSRS. SMITH & RICHARDSON,
COLUMBUS, ONT.

Importers of Clydesdale horses and Shorthorn cattle, are now offering 10 imported stallions, including sons of the renowned Baron's Pride, Prince Thomas, Royal Garrick and Mountain Sentinel; also 10 mares, 6 of them imported, and the balance from imported stock. Shorthorns, imported and home-bred, all ages. Stations:

Oshawa & Brooklin, G.T.R.; Myrtle, C.P.R.
40 miles east of Toronto.
Long-distance Telephone at residence, near Columbus. Telegraph, Brooklin.

CHOICE OF WESTERN ROUTES

VIA THE
Chicago, Milwaukee & St. Paul R'y.

In planning your western trip why not take advantage of the offer of the Chicago, Milwaukee & St. Paul Railway to allow you a choice of routes? The Southwest Limited, Chicago to Kansas City; The Overland Limited, Chicago to Omaha and San Francisco, and The Pioneer Limited, Chicago to St. Paul and Minneapolis, offer a variety of routes and excellence in service and equipment not obtainable elsewhere. Complete information regarding these three main-travelled roads free on request.

BAWDEN & McDONELL

Exeter, Ont.

IMPORTERS OF
Clydesdale, Shire and Hackney Horses

Our new importation has arrived, and we have now about 20 stallions for sale, ages from 2 to 7 years; the best that could be purchased in Scotland and England.

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

How Do You Know?

If we say that we can show you how to make more money from your milch cows, isn't it worth your while to investigate our proposition? You don't know whether we can or not until you hear our story. The

Empire Cream Separator

will turn your milk loss into profit. It will do it better than any other separator, because it is a better separator than any other, built on a better plan to do better work and make bigger profits for you. May we not tell you how and why?

Empire Cream Separator Co.
28-30 Wellington St., W. Toronto, Ont.

Send your name to-day for our Free books on the Empire way of dairying.

If you enclose four cents in stamps we will send you a handsome goldline Empire pin.



SKY LIGHT



THE SAFE LOCK SHINGLE



BABY SHINGLE NAILED FREE



CORNICE



Going to Build or REPAIR?

We can help you with our Sheet Metal goods in Roofing, Siding, Ceilings, etc.

They are fire and lightning proof, handsome and durable. Send rafter and ridge lengths for roofing estimate; outside measurements for siding estimate, and careful diagram for ceiling estimate and free catalogues.

SIDING



CEILING



O.K. THIMBLE

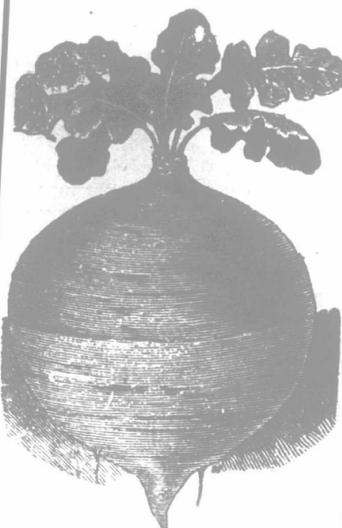


METAL PUMP



METAL SHINGLE & SIDING CO. LIMITED PRESTON, ONT.

THE PIONEER SEED HOUSE OF CANADA



BRUCE'S New Century Swede Turnip

After carefully testing this variety for 3 years, we have no hesitation in offering it as one of the very best shipping varieties on the market, while for cooking purposes it excels all the ordinary Swedes. It is a purple-topped Swede, resembling the Westbury, of splendid uniform growth and of fine quality, and the roots are clean and well shaped. It is the best Swede we know of to resist mildew, and is a heavy cropper. $\frac{1}{2}$ lb., 10c.; $\frac{3}{4}$ lb., 17c.; 1 lb., 30c.; 4 lbs., \$1.10, postpaid.

Our beautifully-illustrated catalogue of seeds and supplies, 88 pages, free to all applicants.

JOHN A. BRUCE & CO., HAMILTON, ONTARIO.

Domestic Economy.

Cucumber juice is an excellent skin whitener.

The white of an egg is a good remedy for a burn.

Deep and full breathing is one of the foundation stones of health.

To remove corns, bunions and caloused places, apply nightly a drop or two of castor oil.

A pinch of cream of tartar in a glass of water taken before breakfast will purify the blood.

If the finger nails are brittle, soak in warm water or olive oil a few moments before cutting.

For very oily hair, use the beaten whites of the eggs instead of the yolks for a shampoo.

For excessive flesh, when much exercise cannot be taken, confine the diet to one meal a day.

To lose flesh, exercise vigorously for twenty minutes every morning on rising, and eat no breakfast.

Sleep with the mouth closed; many throat diseases come from taking the breath through the mouth.

A LITTLE PINCH OF SODA.

A pinch of soda stirred into milk that is to be boiled, will keep it from curdling.

A bit of soda, the size of a pea, added to the tomatoes for tomato cream soup, will prevent the milk's "breaking" when it goes in; and it is a safeguard for all cream soups.

A little soda put into the water in which dried beans are soaked will expedite the process wonderfully without influencing the flavor of the beans.

When cooking green vegetables a small particle of soda added to the boiling water just before putting in the vegetables will keep them in fresh color.

There will be no disagreeable odor during the cooking of cabbage and cauliflower, if put on in cold water to which has been added a good pinch of baking soda. They must be cooked about twenty minutes after the water reaches a boil, and the saucepan should be left uncovered during the entire process.

There are innumerable uses for this same baking soda, which are commonly known. These are only a few in which its worth is not generally understood as a valuable ally to the housekeeper.

GOSSIP.

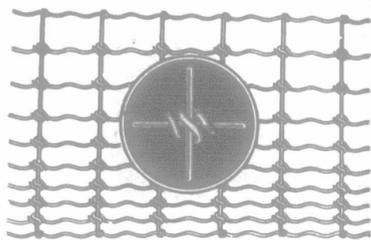
It is always a good time to buy young, well-bred, well-fleshed Hereford bulls, and to the trade, Mr. R. S. Lee, Williamsford, Grey Co., Ont., offers five such animals of good individuality and breeding, sired by Prince of Wales 1267. He also advertises young heifers by the same sire.

Mr. W. G. Milson, Goring, Ont., breeder of Shorthorns, makes a change in his advertisement, in which he offers for sale young cows and heifers of several popular Scotch-bred families from his herd, which is headed by the noted champion bull, Abbotsford =19446=, of the Cruickshank Village Bud family.

TRADE TOPIC.

STOCK FOOD LITERATURE.—The International Stock Food Co., Toronto, Ont., whose establishment was burned during the great fire, of April 19th, and who are, consequently, carrying on summer business at the Granite Skating Rink, have closed negotiations for the erection of a three-story and basement building on Yonge St., which will give the firm room to install a plant with a capacity three times as great as the one destroyed in the fire. Although the entire stock of Dan Patch lithographs and International stock books were destroyed, the firm is again in a position to issue new copies of each, free of charge, to all readers who will write to the company answering the questions: "Where did you see this notice?" and "How many head of stock have you?"

Heavy, Strong, Durable



Ideal Fencing

has heavy (No. 9) hard steel galvanized wire for uprights and for horizontals, insuring serviceability and uniform durability. The lock is galvanized; does not rust and will not slip.

Write for illustrated catalogue of fencing and gates.

The McGregor-Banwell Fence Company, Limited
Walkerville, Ontario.

REGISTERED HEREFORDS.

For sale: 5 young bulls, 16 and 17 months old; also some young heifers, 15 to 17 months; all from my stock bull, Prince of Wales 1267. **R. S. LEE, Williamsford P. O., Ont.**
Holland Centre Station, C. P. R.

THE SUNNYSIDE HEREFORDS

headed by imp. Onward, by March On, for sale, 10 choice bulls, imported and home-bred, from 1 to 2 years old; also 1 bull 13 months old, a high-class herd-header. All bulls are of the heavy, low-down, blocky type. We can yet spare a few choice cows and heifers. Inspection invited. **O'NEIL BROS., Southgate, Ont., Lucan Station, G.T.R.; Ilderton or Denfield on L.H. & B.**

INGLESIDE HEREFORDS 100 Head.

Calves to 6-year-olds. If you want to start a small herd, write for particulars. The quality and breeding is of the best. A good foundation means success, and here is where you can get it at prices and terms to suit your purse. **H. D. SMITH, COMPTON, QUE.**

THE MAPLES FARM HEREFORDS

Near Orangeville, Ont., on C. P. R. (Owen Sound branch). Imported and pure-bred bulls and heifers for sale, from imported and pure-bred dams, and sired by imp. Spartacus, No. 109829, -1716-, winner of sweepstakes and silver medals, Toronto, 1902 and 1903. Young bulls a specialty. Prizewinners wherever shown. Inspection invited. Popular prices. **W. H. HUNTER, on Near Orangeville, Ont. THE MAPLE P.O.**

SHORTHORN BULLS FOR SALE.

We have three choice young Shorthorn bulls now on offer, one Cruickshank Mysie, and one Scotch Jessamine, each 12 months old and sired by Spicy Robin; and one Cruickshank Orange Blossom, from imported sire and dam; also females of all ages. Herd headed by imp. Joy of Morning (78929), winner of 1st prize at Toronto Exhibition, 1903; also S.-C. White Leghorn eggs for sale at \$1 per 13. **GEORGE D. FLETCHER, Binkham, Ont.**

Family and Stockmen's Recipes

Receive expert attention with us. Send recipe for price, it will be observed as confidential and returned promptly. **The Worthington Drug Co., Guelph, Ont. Chemists and Manufacturers of Worthington Stock Food.**

FOR SALE: Shorthorn Bulls

Two imported—a "Cruickshank Lavender" and a "Marr Emma"—bred in the purple, and individually as good as the breeding would suggest. Also two grand young bulls about ready for service. Yorkshire boars and sows from imported stock. Prices right. Come and see me.

RICHARD GIBSON, DELAWARE, ONT.

GREEN GROVE STOCK FARM. Herd headed by Abbotsford =19446=. Choice lot of young cows and heifers for sale, of such families as Clarets, Villages, Fairy Queens, Isabellas, Ury's, Rose of Autumns, and other good families. Apply to **W. G. MILSON, Goring P. O., Markdale Sta., Ont.**

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

GOSSIP.

The sheep show at the St. Louis World's Fair will last from October 3rd to October 13th. Entries close August 30th.

"Some men never learn by experience." "That's true," answered young Mrs. Torkins. "Charley is just as much surprised every time he loses at the races as if it had never happened before."

S. E. Dean & Sons, Dowsby Hall, England, breeders of Lincoln sheep, report 1,700 lambs gone to grass this spring, the produce of 1,390 ewes, which is considered satisfactory when the very wet spring is taken into account.

Mr. H. J. Davis, Woodstock, Ont., importer and breeder, advertises Yorkshire pigs of early spring litters from imported sows, suitable for show pigs; also boars and sows of breeding age, and imported sows bred to show boars.

Bargains in Ayrshires of fashionable breeding and type are advertised on another page by C. H. Snider, Attercliffe, Ont., whose railway stations are named in the advertisement. Look it up, and write him for particulars.

In 1902 a Suffolk ewe was purchased at a dispersion sale in England which within twelve and a half months presented her new owner with no less than eight healthy lambs. These were dropped on the following dates: February 22, 1903, two ram lambs; August 31, 1903, two ram lambs and one ewe lamb; March 9, 1904, two ram lambs and one ewe lamb. All the lambs dropped in 1903 were raised, and those born this year are doing well.

An Englishman tells an amusing story of Sir Isaac Newton. The discoverer of the law of gravity was once told by a shepherd boy that it was going to rain, though the sky was cloudless. As the prediction proved true, Sir Isaac told the boy he would give him a guinea if he would point out how he could foretell the weather so truly. The shepherd pocketed the money and said: "Now, sir, whenever you see that black ram turn his tail towards the wind it's a sure sign of rain within the hour."

English "As She is Spoke."

Oh, why should the spirit Of grammar be proud, With such a wide margin Of language allowed? Of course, there's a limit—"I knowed" and "I've saw," "I seen" and "I done it," Are rather too raw.

But then there are others No better than they, One hears in the talking He hears every day.

"Where at?" asks one person, Quite thoughtless. And: "Who," Asks another, "did Mary Give that bonnet to?"

Hear a maid, as she twitters: "Oh, yes, I went out With she and her fellow In his runabout."

And hear a man saying: "Between you and I, That block of Pacific Would make a good buy."

And this from a mother, Too kind to her boy: "I had rather you shouldn't Do things to annoy."

And this from a student, Concerning a show, Who says to the maiden: "Let's you and I go."

There's lots of good people, That's talking like that, Who should learn from we critics To know where they're at.

THOROLD CEMENT AND PORTLAND CEMENT

FOR BARN WALLS AND FLOORS, HOUSES, SILOS, PIGPENS, HEN HOUSES, AND SEWERS, TILE, ABUTMENTS AND PIERS, FOR BRIDGES, GRANOLITHIC SIDEWALKS; IN FACT, FOR ALL WORK THAT CAN BE DONE WITH CEMENT.

Estate of John Battle THOROLD, ONT. WHOLESALE IN CAR LOTS ONLY.

Good Bulls! Cheap Bulls!

One red, ten months old; one roan, thirty months old; well bred and good individuals I am quoting these at prices that will tempt you to buy. Write at once for description and prices. Grand crop of LAMBS from imported and home-bred ewes.

A. D. McGugan, Rodney, Ont.

W. G. PETTIT & SONS FREEMAN, ONT., Importers and Breeders of

Scotch Shorthorns

110 head in the herd, 40 imported and 70 pure Scotch breeding cows. Present offering: 3 imported and 6 pure Scotch from imported sire and dam; 6 Scotch-topped from imported sires; also imported and home-bred cows and heifers of the most popular type and breeding. A few choice show animals will be offered.

Burlington Jet. Sta. Telegraph & Telephone

IMPORTED SHORTHORNS AND CLYDESDALES

15 imported Scotch Shorthorn heifers, all in calf or calves at foot; 2 imp. bulls; both in pedigree and individually these animals are gilt-edged. Four three year-old imported Clydesdale fillies, very large and A1 quality.

ALEX. ISAAC, Cobourg P. O. and Station

First-class Shorthorns—Young cows and heifers of fashionable breeding. Also Shropshires of different ages. Write for prices, etc., to T. J. T. COLLE, Bowmanville Stn., G. T. R. o Tyrone P. O.

High-class Shorthorns—Two bulls ready for service. Also young cows and heifers of different ages, of the Lavinia and Louisa families. For prices and particulars apply to BROWN BROS., Lakeview Farm, Onono P. O. Newcastle Station, G. T. R.

HILLHURST FARM (ESTABLISHED FORTY YEARS.)

SHORTHORN herd numbers 30, with Imp. Scotch Hero (Missie) and Broad Scotch (Sittlyton Butterfly) in service. Some choice young bulls and heifers for sale, by Joy of Morning, Scottish Beau, and Lord Mountstephen, from imported and Canadian-bred dams of HAMPSHIRE '03 lambs sold milk strains.

Jas. A. Cochrane, Hillhurst P. O., o. COMPTON Co., P. Q.

T. DOUGLAS & SONS, STRATHROY STATION & P. O., BREEDERS OF

Shorthorns and Clydesdales

85 Shorthorns to select from. Present offering: 14 young bulls of splendid quality and serviceable age, and cows and heifers of all ages. Also one (imp.) stallion and two brood mares. Farm 1 mile north of town.

HIGH-CLASS SHORTHORNS. 8 heifers, in calf to an imported Scotch bull; 6 bulls ready for service; about 15 heifer and bull calves, from 3 to 12 months old. Prices very reasonable, considering quality. Inspection invited. FRANK W. SMITH, Walnut Farm, Scotland, Ont. o

SHORTHORNS

For sale: Young bulls from six to sixteen months; two sired by Red Rover (imp. in dam), and one sired by Village Champion (imp.), owned by W. C. Edwards & Co. Inspection invited.

N. S. ROBERTSON, o. ARNPRIOR

RAISE YOUR CALVES cheaply and successfully on

Blatchford's Calf Meal

AND SELL THE MILK. Free Pamphlet - - How to do it.

CHAS. COWAN, LONDON, ONT.

PROSPECT HILL FARM High-class SHORTHORNS

FOR SALE: 4 bulls, from 7 to 12 months old; 2 sired by Aberdeen Hero (imp.), 2 by Royal Duke, he by Royal Sailor (imp.). Also some heifers bred to Wandering Count.

J. R. McCALLUM & SON, Iona Sta., Ont.

GOSSIP.

Mr. John Harding, the English Shropshire breeder, reports that one of his ewes born in 1900 has produced in four crops thirteen lambs.

Mr. Herlihy looked at his latest photograph, and his gaze bespoke disappointment. "Oid never 'a' had this tuk if it hadn't been for thim children telling me about the improvements in photographing!" he muttered. "Improvements, is it? Oid loike to show this pictur' soide he soide wid the wan Oi had twinty years ago. There's an old anxious, toired-out look to this new wan that was never in the other. There may be improvements in photographing," said Mr. Herlihy, as he deposited the card face down in his table drawer, "but Oi've yit to see thim."

Chicago has lost a leader in his particular line. A reporter gives the following regarding him: "Billy the Leader" is dead, and his many friends who have long admired him at scale '10, D.' mourn his loss. 'Billy' was the aged sheep that led his unsophisticated country cousins down from the scale to their slaughter-house doom. He had grown wise in the service and seemed to know all the traders who patronized his scale well, and plodded daily at his service with a poise of the head and expression of eye that indicated that he knew what was expected of him every minute. Horn Bros., of Valparaiso, Ind., raised Billy as a pet lamb, and used him in connection with their slaughter-house for some time, when George McCarthy, a sheep salesman at this market, bought him and presented him to H. Ryan to facilitate the movement of sheep from one of the big scales of the Chicago market."

This was told as a new story in the smoking-room of an up-town apartment house a few nights ago:

Noah Webster was, as might naturally be supposed, a stickler for the correct use of English, and he had frequent occasion to take exception to Mrs. Webster's use—or, as he termed it, misuse—of words. On one occasion Webster happened to be in the dining-room alone, when a very pretty housemaid entered. Noah, being somewhat susceptible to feminine charms, according to the chronicler, walked over to the girl, put his arms about her waist, and kissed her squarely on the mouth. Just at this moment Mrs. Webster entered the room, gasped, stood aghast, and in a tone of horror exclaimed:

"Why, Noah, I am surprised!" Whereupon Mr. Webster, coolly and calmly, but with every evidence of disgust, turned upon her.

"How many times must I correct you in the use of simple words?" he remarked. "You mean, madam, that you are astonished. I, madam, am the one that is surprised."

The wealthiest sheep owner in the territory of Oklahoma, says the Kansas City Journal, owes his entire wealth and the ownership of his herds of sheep to the kind-heartedness of his wife. About twelve years ago he brought a herd of several thousand sheep to Smith County. The following winter was the most severe in the history of that section of the State, and the sheep died like flies. The owner, thoroughly disgusted, knocked the lambs in the head out of pity. The ewes, almost frozen, had left them to starve and chill to death. About the ranch the lambs' dead bodies were lying everywhere. There were hundreds of the young, and the owner could not possibly care for all, and in sheer desperation he killed every one he found neglected.

The killing of the lambs was too much for the kind heart of his wife, and she finally persuaded her husband to bring seven of them home, where she raised them on a bottle. When Hinton located in Oklahoma at the opening of the Cherokee strip, eight years ago, he then had a few hundred head of sheep, the progeny of those seven lambs which he had carried home one at a time four years before. With the exception of the introduction of several full-blooded, registered rams into the herds at various times, there is not to-day a sheep on the range that is not a lineal descendant of one of those first seven.

Day's Aromatic Stock Food



Saves feed by assisting stock to digest their food. A small dose in the usual food twice each day. It contains no drugs; purely aromatic.

3 LBS. 30c. 36 LBS. \$3.10. Ask your dealer or write us.

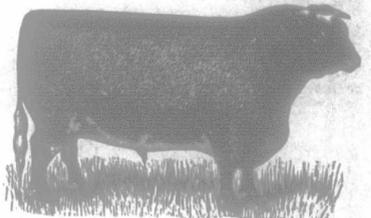
The Day's Stock Food Co., Station O. TORONTO.

SHORTHORNS

Some extra good young bulls for sale. Catalogue.

JOHN OLANOY, Manager.

H. CARGILL & SON, OARGILL, ONTARIO.



High-class Shorthorn Bulls For Sale

3 imported bulls. 4 bulls from imp. cows and by imp. bulls. The others from Scotch cows and by imp. bulls. 21 Scotch cows and heifers, including 9 imp. animals.

ARTHUR JOHNSTON, Greenwood, Ontario.

Sunnyside Stock Farm. JAMES GIBB, Brookside, Ontario. Breeder of high-class SHORTHORN OAT-TLE (imp.) "Brave Ythan" at head of herd. Stock for sale.

MAPLE LODGE STOCK FARM, 1854

An offering of a very superior lot of Shorthorn Bulls and Heifers as well as something VERY attractive in Leicesters.

Choice ewes got by imported "Stanley" and bred to imported "Winchester." Excellent type and quality. A. W. SMITH, MAPLE LODGE, ONT.

SHORTHORNS.

Importer and breeder of choice Shorthorns. Scottish Hero 158736 at the head of herd. JAS. A. ORRER, Shakespeare, Ont.

BELL BROS., Cedar Stock Farm, Bradford, Ont. Breeders of Shorthorns, Clydesdales, and Shropshire sheep. Present offering: Two bulls, 9 and 14 months. Stock always for sale.

Shorthorn Cattle and Lincoln Sheep

Scotch Heifers for sale: Clippers, Miss Ramedens, Maids, bred to imported Governor-General -28865-, and imported Proud Gift (84421). They have both breeding and individual merit.

J. T. GIBSON, Denfield, Ontario.

Shorthorns, Clydesdales, Yorkshires

Special offering at present: Young Yorkshire pigs, either sex; pairs not akin, and of right type. A. E. HOSKIN, Cobourg, Ont., P. O. and Station.

JOHN GARDHOUSE & SONS

Highfield P. O., Ont., Breeders of

Scotch and Scotch-topped Shorthorns, Shire Horses, Lincoln and Leicester Sheep.

A good selection of young stock of both sexes always on hand for sale. Scottish Prince (imp.), Vol. 49, at head of herd. Royal Albert (imp.) 20067, at head of stud. Farms 3 1/2 miles from Weston, G. T. R. and C. P. R., and electric cars from Toronto.

We are offering 18 BULLS from 4 to 10 months old, sired by imported Diamond Jubilee -28861-. Also a few females, all ages, of good Scotch breeding.

FITZGERALD BROS., Mount St. Louis, Ont.

Himvale Station, G. T. R.; Hilldale Telegraph Office.

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



Cleaning out the flues of most furnaces is so difficult and complicated that only an expert can do it, and experts' services usually come high.

The flues in the Sunshine Furnace can be cleaned from two different clean-out doors and from the feed-door, so that there is no part of the flues which is not easily reached.

A special brush for this purpose is always supplied, and the operation is so simple that a boy can perform it.

The whole Sunshine Furnace construction is on the same plan of simplicity.

Sold by all enterprising dealers. Write for booklet.

McClary's

LONDON, TORONTO, MONTREAL, WINNIPEG, VANCOUVER, ST. JOHN, N.B.



IT'S MONEY IN YOUR POCKET

To use Pedlar Steel Ceilings.

The entire surface appears to be one beautiful combination of curves and angles, without beginning or without ending—a veritable triumph of the interior decorator's skill.

Churches, dwellings, meeting halls, stores, and offices when fitted up with Pedlar Steel Ceiling and Wall Patterns present an appearance of richness and stability that cannot be duplicated in lath or plaster. Besides they are economical.

When we know you are interested, we'll send our handsome catalogue.

THE PEDLAR PEOPLE, OSHAWA, ONTARIO.

W. B. Watt's Sons

BREEDERS OF SHORTHORNS and CLYDESDALES

Don't miss the chance to get a grand cow or heifer, in calf to the \$1,200 Scottish Beau (imp.), from the herd that has produced more champions and won more herd prizes than any other herd in Canada. A fine blocky pair of bull calves and a yearling stallion for sale at once. Write for particulars.

On JUNE 25th next, we sell at PUBLIC AUCTION, in conjunction with other Canadian breeders, at the Sale Pavilion, Hamilton, Ont., 15 of our imported and home-bred cows and heifers.

Elora Sta., G.T.R. & C.P.R. Salem Post and Tel. Office. 'Phone connection

PINE GROVE SHORTHORNS

High-class CRUICKSHANK, MARR and CAMPBELL SHORTHORNS, and SHROPSHIRE SHEEP.

Herd won 1st prize, open to all ages, and 1st for herd under 2 years, at Dominion Exhibition, Toronto, '03, headed by imported "Marquis of Zenda," bred by Marr, assisted by imported "Village Champion," bred by Duthie; also "Missie Champion," son of imp. "Missie 153rd," and "Clipper King," a superior young bull, full of the blood of the Cruickshank Clipper family. One imported and four superior young home-bred bulls, ready for service, fit for herd headers, for sale.

On JUNE 25th next, we sell at PUBLIC AUCTION, in conjunction with other Canadian breeders, at the Sale Pavilion, Hamilton, Ont., 15 of our imported and home-bred cows and heifers.

W. C. EDWARDS & Co., Limited, Proprietors.
JOS. W. BARNETT, Mgr., Rockland, Ont., Can.

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

GOSSIP.

Mr. Geo. Rice, breeder of Holstein cattle, writes: "Since moving to the Annandale Stock Farm, Tillsonburg, we have added to our herd over 35 head of choice cattle, mostly imported from the States, and were personally selected with great care for their individual excellence. Many of them are now in the Advanced Registry, and all of them are of that capacity, and will go in the first time tested. They include the daughters and descendants of that wonderfully fine cow, Iosco Pride, with which we won sweepstakes at Toronto and the Pan-American. This brings our herd up to over 100 head, and they are quite comfortable in the capacious and fine stables at Annandale, and are now enjoying roaming over the broad acres and partaking of the luxuriant pasture.

"Our spring sales have been very good. We sold to Mr. Reuben Nancekivel, an extensive dairyman near Ingersoll, who owns some 600 acres of land, that finely-bred bull calf, Sir Calamity Posch, whose name indicates his breeding, he being the son of the great bull, Sir Pietertje Posch, whose dam still retains the world's record for two- and three-year-olds, having made 87 lbs. 10 ozs. milk a day, and over 27 lbs. butter a week. Messrs. Wm. and J. C. English, of Petrolia, got a fine young cow, Nora Crema, whose sire is the son of the famous cow, Eunice Clay; 85 lbs. milk a day. They also took a very handsome bull in Maud of Kent's De Kol. This bull would be a very fine show animal. A bull also closely related to him, we sold to Mr. Edward Hunter, of Verschoyle. H. Beckett & Son, of Hamilton, got a fine yearling bull in Sir Artis Posch. His dam, Cornelia Artis, has been a fine show cow in her day, and a great milker, and the sire of this bull, Sir Abbekerk Posch, has for dam the great cow, Aaltje Posch 4th, who made in a provincial dairy test over 8 lbs. butter in 48 hours, which is the world's record for a public test. We also sold to Mr. H. W. Norton, Howell, Mich., a fine bull calf, whose dam is the great cow, Ianthe Jewel Mechthilde. This cow has a four-year-old record of over 22 lbs. butter a week, and she averaged 4.2 per cent. of fat during her official test. Mr. Norton's calf is sired by Sir Abbekerk Posch, whose dam is the great cow, Aaltje Posch 4th. She also has an official test of 23 lbs. butter a week at over 10 years old, and she is also the dam of Alta Posch, who holds the world's record for two- and three-year-olds, over 27 lbs. butter a week, made at under three years old. Another great bull which it was our pleasure to sell was one we sold to Messrs. Richardson & Son, Caledonia, Ont., to head their fine herd of pure-bred Holsteins. This bull had for dam Kaatje De Boer 2nd, record 23 lbs., made at four years old, and won the prize for that class at the time the record was made. At five years old, she increased her record to over 24 lbs. a week. The sire of Messrs. Richardson's bull is Sir Pietertje Posch, whose dam has the world's record of 27 lbs. butter a week for two- and three-year-olds. She made over 87 lbs. 10 ozs. milk a day, averaging over 83 lbs. a day for the week of the test, and considering that it was made while she was under three years old, it undoubtedly will be a long time before this record is beaten for that age, if it ever is. This brings the average record of the dam and sire's dam of this young bull to over 25½ lbs. butter a week, which is not equalled by any bull bred or owned in Canada, except one, and that is a bull we retain in our own herd, from the same sire as Calamity Jane, the famous public official test winner, whose record is over 25 lbs. butter a week. To one of our former neighbors at Currie's, Mr. Walter Schell, we sold a royally bred heifer calf from the great sire, Sir Pietertje Posch, above described. This heifer calf has for dam, Canary Starlight, who has an official test of over 21 lbs. butter a week at four years old, averaging 4.57 per cent. of fat. Mr. Schell also got two of the cows we recently imported, Bessie Coverts 3rd's Pansy, and Bessie Tolman and her heifer calf, which will make a fresh addition to Mr. Schell's herd of pure-breds. We also sold to a neighbor at Currie's, Mr. Fred Rowe, four yearling heifers of a recent importation, which were bred from the Houtie strain."

JUST A COLD SETTLED IN THE KIDNEYS, BUT IT TURNED TO DROPSY.

IT WAS CURED BY

DOAN'S KIDNEY PILLS.

Read of This Wonderful Cure.

It May Do You or Your Friends Some Good to Know About It.

Miss Agnes Creelman, Upper Smithfield, N.S., writes:—About 18 months ago I caught cold. It settled in my kidneys, and finally turned into Dropsy. My face, limbs, and feet were very much bloated, and if I pressed my finger on them it would make a white impression that would last fully a minute before the flesh regained its natural color. I was advised to try DOAN'S KIDNEY PILLS, and before I had used half a box I could notice an improvement, and the one box completely cured me. I have never been troubled with it since, thanks to DOAN'S KIDNEY PILLS.

Price 50c. per box, or 3 boxes for \$1.25; all dealers, or The Doan Kidney Pill Co., Toronto, Ont.

16 Shorthorn Bulls

All pure Scotch, two imp. in dam, 7 from imp. sire and dam, others by imp. sire and from Scotch dams of popular families. Herd numbers 72; headed by Imp. Greengill Victor, a Princess Royal; bred by W. S. Marr. Present offering also includes a number of Scotch heifers and imp. cows in calf. If you want a herd header, or cows that will produce them, write us.

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

ONLY THE BEST.

Eight young bulls and 10 heifers of the purest Scotch breeding and of the low-set kind, as good as I have ever offered, for sale at prices that will induce you to buy. Most of the heifers are in calf to imported bulls that stand as high as any in the world in breeding and individual excellence. High-class Shropshires for sale as usual.

ROBERT MILLER, Stouffville, Ont.
Representative in America of Alfred Mansell & Co., Shrewsbury, Eng. The largest exporters of live stock in the world.

SHORTHORNS. 8 young bulls, 11 heifer calves, yearlings, two-year-olds and young cows for sale. Several Miss Ramdens and the very best families represented. Prices moderate.
G. A. BRODIE, Bethesda, Ont.
Stouffville Station.

Scotch Shorthorns and Berkshire Swine AT VALLEY HOME STOCK FARM.

For sale: 3 young bulls of superior breeding and quality, from 10 to 18 months old, the low-down sort and good heavy animals; will sell cheap to make room for our increase in young stock. Also Berkshires of all ages, 3 young boars and a fine lot of sows, due to farrow in one month's time. Stations Meadowdale or Streetsville Junction, C. P. R., and Brampton, G. T. R. Visitors welcomed. Address S. J. PEARSON, SON & CO., Meadowdale P. O. and Telegraph.

SHORTHORNS AND SHROPSHIRE FOR SALE: Young bulls and heifers from best blood. Shearlings and lambs bred from imp. stock on side of sire and dam. Prices reasonable.
E. E. PUGH,
Claremont P. O. and C. P. R. Sta.

Rose Cottage Stock Farm SHORTHORNS Royal Prince = 31241 = at the head, assisted by Sir Tatton Sykes = 49402 =, Royal Prince, the sire of Fair Queen, winner over all beef breeds at Chicago International Fat-stock Show, 1903. We have 6 heifers and 4 bulls for sale. H. K. FAIRBAIRN, Thedford, Ont.

Shorthorns & Scotch Collies FOR SALE at reasonable prices. Also a quantity of Strawberry Dent Corn for seed at 2c. per lb., shelled, in 2-bush. lots and less; 2½ bush. orders and upwards at \$1 per bush., 56 lbs. J. K. Hux, Rodney P. O. and Sta., (M.C.R.R. and L.E. & D.R.)

SCOTCH SHORTHORNS.

7 bulls, 9 to 16 months; cows and heifers in calf. Also, Berkshire pigs, 11 months old. Prices right, and terms easy.

DAVID MILNE, Ethel, Ont.

Shorthorns, Berkshires and Leicester.

FOR SALE: Choice two-year-old heifers, well gone in calf; also yearling heifers, bull calves. Boars and sows fit for breeding, and young pigs.

ISRAEL GROFF, ALMA, ONTARIO.

SHORTHORNS FOR SALE

One grand young bull, 18 months, a dark, rich red-roan, and a show animal; also some good cows and heifers. Come and see them.

Hugh Thomson
Box 556. ST. MARY'S, ONT.

GOSSIP.

Mr. Hugh Thomson, St. Mary's, Ont., ordering a change in his advertisement...

Messrs. J. R. McCallum & Son, Iona Station, Ont., breeders of Shorthorns...

Mr. Geo. G. Stewart, Howick, Que., importer and breeder of Clydesdale horses...

Best of the purest and as good as that will induce in calf to improve in the world...

The Best Family Medicine.

The best, surest, safest and most reliable remedy for all Liver, Stomach and Bowel troubles.

Beecham's Pills

Sold Every where. In boxes 25 cents.

FOR SALE: STOCK BULL



Captain Bruce, quiet, active and sure. Also four young bulls, three roans and one red...

WM. McDERMOTT, Living Springs, Ont., Ferguson Station.

J. WATT & SON,

Scotch Shorthorns for sale. Royal Archer (imp.), 14 mos. old, sired by Golden Prince...

P.O., Salem, Ont. Elora Stations, G. T. R. & C. P. R.

SHORTHORNS

For sale: Two extra good bulls, 17 months old, both red. These bulls are above the average...

Present offerings: Spicy Count (imp.), Dutch; 15 bulls and heifers of his get...

J. S. McARTHUR

Pine Grove Stock Farm. GOBLE'S, ONT.

4 HOLSTEIN BULLS

FOR SALE: From 4 to 7 months old, having sires in their pedigrees from such strains as Inka, Netherland, Royal Aargie, and Tritonia Prince...

THOS. B. CARLAW & SON, Warkworth.

Riverside Holsteins

90 head to select from. Young bulls whose dams have official weekly records of from 17 to 21 lbs. of butter...

Matt Richardson & Son, Caledonia P.O. and Station.

Ridgedale Farm Holsteins

Bull and heifer calves, bred from rich milking strains, on hand for sale. Prices right. Write for what you want.

W. W. WALES, Uxton P. O., Ontario. Shipping stations: Port Perry, G. T. R., and Myrtle, C. P. R., Ontario County.

Holstein Bull Calves

Sired by Beryl Wayne Paul Concordia, whose sire's dam has an official record of 27 lbs. 14 ozs. in 7 days...

BROWN BROS., LYN, ONT. Lyndale Stock Farm.

Brookbank Holsteins

16 to 25 lbs. of butter in 7 days' official test are the records of this herd of Holstein cows. Heifers of equivalent records. Bulls for sale whose sires and dams are in the Advanced Registry...

GEORGE RICE, TILSONBURG, ONT.

If You Want a Bull (under 1 year) to show bred from officially tested stock, write H. BOLLETT, Cassel, Ont.

GOSSIP

Things are being done all the time that wisecracks said could not be done.

You can "see the finish" of the person who has finished his education.

You can get some authority for any fool thing you care to do.

If you give up all that has been given up by others, you might as well decide to travel in the beaten cow paths all your life.

Those past opportunities and present sad sighs are not laying much of a foundation for anything you would like to build in the future.

A "Farmer's Advocate" subscriber in Simcoe Co., Ont., writes that he has made a calculation this year in potato planting which figures out as follows.

An ordinary grain bag holds about 2,300 seeds, when not cut too large, and when planted in hills three feet each way, with three pieces in a hill, it takes about 14,620 seeds...

planted with a plow in rows thirty inches apart and ten inches in the row, it takes 20,700 seeds, or about eight bags.

If planted in rows thirty inches apart, one foot apart in the row, it takes 17,200 seeds, or about seven and a half bags to plant an acre.

Mr. David Hill, Staffa, Ont., writes: "I wish you to change my advertisement, and mention a few Shorthorn heifers instead of the filly, as I sold her to Mr. John Jickling, St. Mary's, who answered the first insertion of the advertisement. She is registered Mertoun Lady [5857], sire Pride of Glasnick (imp.) [2978] (5249), and is one of the many good ones by this noted sire. Mr. Jickling has made no mistake in securing her, as she is a typical two-year-old Clydesdale filly. I am still offering the two young Clydesdale stallions. They are a pair of right good ones at a right price, and should be seen by those who want such before purchasing. The heifers I am offering are sired by Defiance - 39908; are one year old; are going to be good cows, and will be sold reasonably, if sold soon."

Mr. Richard Gibson, Delaware, Ont., writes: "A word as to the Shorthorn bulls I am advertising. They were both being fitted for St. Louis, but the fates forbode. Perhaps as well. Gay Lothario weighed, three weeks ago, 1,760 lbs. at twenty-six months old. He just put on 100 lbs. last month. He is a show bull sure, and with his straight Cruickshank pedigree is surely a treasure. Were I wealthy, or had a herd of cows fit for his service, money could not buy him. Scottish Diamond, not weighed (because I have no private scales, the other weight is official), but he is so sweet and so mellow, he made the Captain's mouth water. He is a little champion. The other bulls are good, and very good, but not in same class, neither are the prices."

TRADE TOPIC.

THE MELOTTE.—We are in receipt of a new announcement from the Melotte Cream Separator Co., in which notice is given of improvements which must tend to add to the popularity of that already popular machine. By changing the skimming device, the Melotte Co. has been enabled to reduce the number of plates in the bowl in all sizes of the machine, thus lessening greatly the work of cleaning. Those who purpose buying a separator this year will do well to send to the Melotte Co., 579 and 581 St. Paul St., Montreal, for a catalogue, which will be gladly sent on request.

Sharples Tubular SEPARATORS

Tubulars Find Gold In Milk

Good butter is worth 20 to 30 cents a pound. Butter is worth only one cent a pound as stock food, yet farmers using gravity skimmers—pans and cans that leave half the cream in the milk—feed that half the cream to stock, then wonder why dairying don't pay. Can't find gold without digging. Can't make dairying pay big profits without getting all the cream.



TUBULARS Dig Right Down to the paying level—squeeze the last drop of cream out of milk—make dairying pay. Tubulars are the only modern separators. The picture shows them. Write for catalogue G-193.

Canadian Transfer Points Winnipeg, Toronto, Quebec, St. John, N. B., Calgary, Alberta. Address: The Sharples Co., Chicago, Ill. P. M. Sharples West Chester, Pa.

FOR SALE—35 HOLSTEIN SPRING CALVES of the famous De Kol and Abbecker breeding, from deep-milking dams, for March, April and May delivery; also cows and heifers. H. GEORGE & SONS, Crampton, Ont.

BARREN COW CURE

makes any animal under 10 years old breed, or refund money. Given in feed twice a day. Particulars from L. F. BELLBOK, Morrisburg, Ont.

JERSEYS For quick buyers, we are going to sell 15 bulls and 25 females. Owing to the natural increase of our herd and to many heifers coming into milk, we make the above offer. Stock of all ages. State what you want and write to-day to B. H. BULL & SON, O. P. R. and G. T. R., Brampton, Ont.

AYRSHIRES AND YORKSHIRES

YORKSHIRE Boars and sows, four to eight weeks old, \$5.00 each at farm. \$1.00 extra crated and shipped. YEARELING AYE-SHIRE BULL, fit for service, \$65.00. SEND FOR CATALOGUE.

J. G. CLARK, Woodroffe D. and S. Farm, Ottawa.

IMPORTED AND HOME-BRED AYRSHIRES

The average butter-fat test of this herd is 4.8. A few young bulls and females, all ages, FOR SALE.

Robt. Hunter & Sons, Maxville, Ont. Farm one mile from Maxville station on C.A.R.

AYRSHIRES

From winners in the dairy test five years in succession. Dairyman of Glenora, bred from Imp. sire and dam, at head of herd. Young bulls fit for service and bull calves and females for sale.

N. DYMENT, CLAPPISON, ONT.

SPECIAL OFFER—BULL CALVES out of such dams as Cherry of Hairlock and Morjorie, one of the best Silver King cows in herd. These calves will be sold at very low prices, quality considered.

ISALEIA GRANGE FARM, J. N. Greenshields, Prop., Danville, P. Q. For Sale—Ayrshires, all ages, and eggs for hatching from Leghorns, Hamburgs, Dorkings, ducks and Bronze turkeys. Also five Collie pups. For further particulars write to WM. STEWART & SON, Monie, Ont.

BARGAINS IN FASHIONABLE AYRSHIRES.

Three 2-year heifers, in calf, at \$40 each; three 1-year heifers, from \$25 to \$40; one 1-year bull, a Cherub, at \$45; one 10-month bull calf, full brother, \$30. The above stock is well grown, and would be in the game in any competition, and from stock of heavy milkers, with grand udders and quarters. G. H. BRIDEN, Attercliffe F. O. Can ship via N. C.R. or G.T.R. at Danville, or C.P.R. Smithville, O.

Advertisement for Hed-rite 25c. CURES HEADACHE. It speaks for itself! Guaranteed to Cure within 30 Minutes, or money refunded. All Druggists or mailed. The Herald Remedy Co., Montreal.

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

QUESTIONS AND ANSWERS.
Veterinary.

CHOREA.

Mare holds right hind leg up in the stable. She does not go lame, but when backing she cannot set the foot down quickly. J. R. M.
Ans.—This is a nervous trouble and hard to treat. You will probably find benefit from giving four drams bromide of potassium night and morning. V.

BOG SPAVIN.

Three-year-old Hackney filly has puffs on the inside of hock joints; exercise reduces them some. F. H.
Ans.—These are bog spavins. Blister the parts once every month with one and a half drams each biniodide of mercury and cantharides, mixed with two ounces vaseline. Clip the hair off; rub blister well in; tie so that she cannot bite the parts. In twenty-four hours rub well again with the blister, and in twenty-four hours longer wash off, and apply sweet oil. Let her head down now, and you may turn her on grass; but must oil every day until the scale all comes off, when you will tie up again and blister as at first. Follow this with a blister every month, as long as necessary. V.

PARAPLEGIA.

Collie bitch took sick and lay for six days. She tried to vomit, and would not eat. I gave her milk and eggs out of a bottle. She is lively now, eats well, etc., but has no power of her hind quarters. A. S.
Ans.—Paralysis has resulted as a sequel to the attack of illness, which may have been caused by arsenic poisoning. It is doubtful if she will recover. Give her five grains of nux vomica three times daily. It can be given by cutting a slit in a piece of lean meat, dropping the drug in, closing the slit, and giving her the meat. Increase the dose by two grains each day until a nervous twitching of the muscles is noticed, when you will cease giving the drug. V.

ROARING.

Young driving horse has wind trouble. Just behind the jaw the throat is thick, there is a lump in which matter forms, and every few weeks it breaks, as it appears, and discharges at the nostrils. He breathes rapidly, and at the end of each breath there is a wheezing. He coughs considerably. J. H. Q.
Ans.—The trouble is in the throat and head. I am of the opinion he has nasal gleet, as well as an affection of the throat, and it is doubtful if the latter can be cured. He is what is known as a roarer. It is possible benefit may be derived by blistering his throat; and the discharge from the nostrils may be checked by giving one dram each sulphate of copper and iodide of potassium twice daily. If his appetite fail, reduce the dose of potash. If the glands of the throat are enlarged, rub well daily with compound iodine ointment after the effects of the blister have passed. V.

LARYNGITIS.

Horse coughs occasionally, and a thin substance runs freely from his nostrils. He has been so for three weeks. D. G.
Ans.—This is laryngitis and requires prompt attention, else it will become chronic. As you say the horse is a valuable one, I think it would be wise to call your veterinarian in, as the disease is liable to many complications which require treatment according to symptoms. Where no complications arise, the following treatment is adopted: Rub the throat twice daily for two days with a liniment made of equal parts spirits of ammonia, oil of turpentine and raw linseed oil. Give two drams chlorate of potash three times daily, either in soft food or placed well back on the tongue with a spoon. Do not drench. Steam the nostrils twice daily by holding his head over a pail containing boiling water with a couple drams carbolic acid. Of course, give rest and keep warm. V.

CLYDESDALES FOR CANADA.

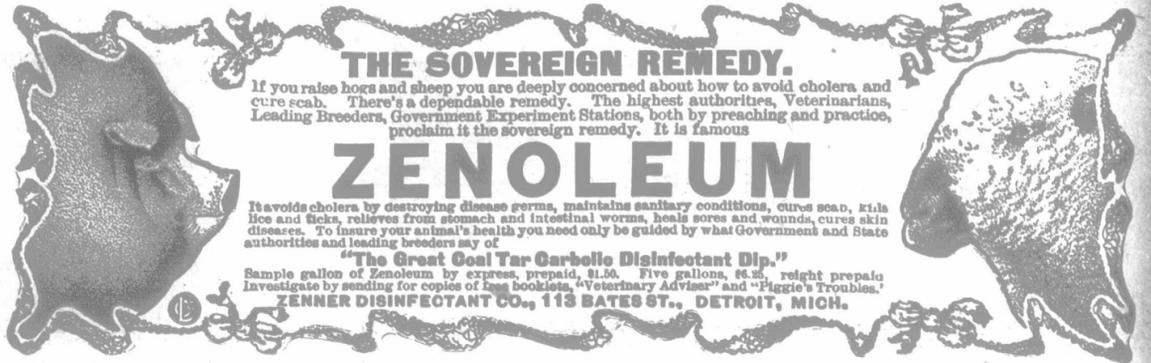
Mr. Matthew Marshall, Stranraer, has sold and shipped three Clydesdale stallions to Mr. John Graham, Carberry, Man. They are well-bred horses, and should do well in the Northwest of Canada, where the Clydesdale is in increasing demand and favor.—[Scottish Farmer.

THE SOVEREIGN REMEDY.
If you raise hogs and sheep you are deeply concerned about how to avoid cholera and cure scab. There's a dependable remedy. The highest authorities, Veterinarians, Leading Breeders, Government Experiment Stations, both by preaching and practice, proclaim it the sovereign remedy. It is famous

ZENOLEUM

It avoids cholera by destroying disease germs, maintains sanitary conditions, cures scab, kills lice and ticks, relieves from stomach and intestinal worms, heals sores and wounds, cures skin diseases. To insure your animal's health you need only be guided by what Government and State authorities and leading breeders say of

"The Great Coal Tar Carbolic Disinfectant Dip."
Sample gallon of Zenoleum by express, prepaid, \$1.50. Five gallons, \$4.25, freight prepaid. Investigate by sending for copies of free booklets, "Veterinary Adviser" and "Figgie's Troubles." **KENNER DISINFECTANT CO., 113 BATES ST., DETROIT, MICH.**



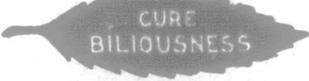
MILBURN'S



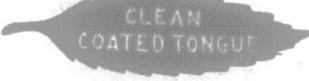
Are a combination of the active principles of the most valuable vegetable remedies for diseases and disorders of the Liver, Stomach and Bowels.



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



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



Sweeten the breath and clear away all waste and poisonous matter from the system. Price No. a bottle or 5 for \$1.00. All dealers or T. T. MILBURN Co., Limited, Toronto, Ont.

TREDINNOCK AYRSHIRES

4 imported bulls from the best milking strains in Scotland head the herd of 75 head. Winnings for 1903 at Toronto and Ottawa: The gold medal and 4 first prize herds; 38 prizes in all—18 firsts, 6 seconds, 5 thirds, 9 fourths. In the Pan-American milk test, the 2 first Ayrshires were from this herd. Quality, size, milk and teats is our aim. Young bulls and heifers for sale. Price and particulars, apply to **JAS. SODEN, Manager, St. Anne de Bellevue, P. Q. G. T. R. and C. P. R. stations on the farm. 23 miles west of Montreal.**

"Nether Lea" Ayrshires. Deep-milking strains.

Three choice bulls, fit for service; 6 bull calves, from 2 to 10 months old; also choice heifer calves, from 2 months up. Napoleon of Auchinbrain (Imp.) at head of herd, whose dam has a record of 72 lbs. per day. Write **T. D. McCALLUM, DANVILLE, QUE.**

3 Ayrshire Bulls one year old, fit for service, all prize winners last fall at Ottawa Exhibition. Females any age. Shropshire sheep, Berkshire pigs; a fine lot of young ones, both sexes, and B. P. Eggs. Eggs for hatching. **J. YULL & SONS, Carleton Place, Ont.**

SUNNYSIDE AYRSHIRES.

Are prizewinners as well as enormous producers. I have for sale 4 young bulls, sired by the Pan-American winner, Leader of Meadowbank; females all ages, of true dairy type. **JOHN W. LOGAN, Allan's Corners P.O., Que. Howick Sta., G.T.R.**

AYRSHIRE HERD-HEADER.

I offer the grand imported bull, Royal Peter of St. Annes, an A No. 1 bull, both individually and as a sire. Also three yearlings and a number of calves, including three last August bulls. **W. W. BALLANTYNE, STRATFORD, "Neidpath Farm" adjoins city.**

Homecroft Farm, High-class Ayrshire Cattle, Chester White Swine, Barred Rock Eggs

for sale at reasonable prices. For particulars write to **J. F. PARSONS & Sons, Barnston Que.**

STOCKWOOD AYRSHIRES are bred for size, beauty and profit, from Imp. and home-bred stock with high milk records and extra high test. Young stock always on hand. Prices right. **David McWatt, Allan's Corners, Que. Brysons, G.T.R., 4 miles; St. Louis Sta., C. A. R., 2 miles.**

AYRSHIRES FOR SALE

Some choice heifer calves. Price, from \$15 to \$25 each. Registered. **JOHN FERGUSON, Camlachie, Ont.**

HILLCREST LARGE ENGLISH BERKSHIRES

HERD OF Founded upon imported stock and Canadian show animals. Various strains represented and new blood introduced at intervals. Each purchaser gets registered certificate of pedigree, and any animal failing to prove a breeder is replaced. **JNO. LAHMER, VINE, ONT.; Vine Sta., G.T.R., near Barrie.**

Pennabank SHROPSHIRE and SHORTHORNS

A number of extra good and well-covered yearlings of both sexes, sired by Imp. Rudyard ram. Also two extra nice young bulls. Prices reasonable. **HUGH PUGH, WHITEVALE, ONT.**

Holwell Manor Farm

SHROPSHIRE FOR SALE. Twenty shearing rams; twenty shearing ewes; twenty-five ram lambs; also twenty Cotswold rams, shearings and lambs. These are animals of choice quality. Prices very low, quality considered. Scotch collie puppies from first-class stock. **D. G. GANTON, Elmvale P. O., Ont. on**

Dorset Sheep and Large Yorkshire pigs from Imp. boars, for sale. Prices reasonable. For particulars write to **ELMER DYMENT, Copetown P. O.**

Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to **MORTIMER LEVERING, Secretary, Lafayette, Indiana, on**

"MODEL FARM" SHROPSHIRE

Everything sold that has been offered for sale. Am booking orders for rams and show flocks. August delivery. Write for prices. **W. S. CARPENTER, PROP., SIMCOE, ONTARIO.**

FARNHAM OXFORDS

We had the champion flock of Oxfords in 1903. Importations annually. Animals of all ages and sexes, both imported and Canadian-bred, for sale at all times at reasonable prices. **HENRY ARKELL & SON, ARKELL, ONTARIO.**

TAMWORTHS AND HOLSTEINS

Boars fit for service, sows bred and ready to breed. 20 boars and sows from 2 to 4 months; a fine lot of March pigs. Pairs not akin. **BERTRAM HOSKIN, Grafton Sta., G. T. R. The Gully P. O.**

GLENHOLM HERD OF TAMWORTHS

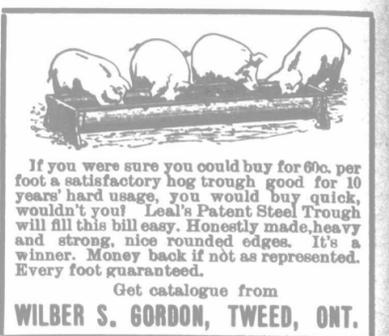
We are now booking orders for spring litters. Have 5 boars and 5 sows, 6 months old, left, and a fine lot of younger ones. **F. O. SARGENT, Eddystone, Grafton Sta., G.T.R.**

Newcastle Tamworths & Shorthorns

Herd of We have for quick sale a lot of choice Boars and Sows, Oct. and Nov. litters, the produce of our Toronto Sweepstakes Stock and the undefeated Boar, "Colwill's Choice" 1343. We are also booking orders for March and April Pigs, the choicest of breeding. We also offer for quick sale 2 or 3 choice Shorthorn Heifers, 12 to 15 month old; also one 2-year-old in calf; all first-class stock, got by bull weighing 2,500 lbs. Write quick if you want something good at moderate prices. **COLWILL BROS., NEWCASTLE, ONT.**

FOR SALE—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigree and safe delivery guaranteed. Address **E. D. GEORGE, Putnam, Ont.**

LARGE ENGLISH YORKSHIRE Sows safe in imported stock, bred to imported boars; boars fit for service, same breeding as sows; boars and sows three and four months old, from imported stock, pairs not akin. Write **JAS. A. RUSSELL, PRECIOUS CORNERS, ONT.**



If you were sure you could buy for 60c. per foot a satisfactory hog trough good for 10 years' hard usage, you would buy quick, wouldn't you? Leal's Patent Steel Trough will fill this bill easy. Honestly made, heavy and strong, nice rounded edges. It's a winner. Money back if not as represented. Every foot guaranteed. Get catalogue from **WILBER S. GORDON, TWEED, ONT.**

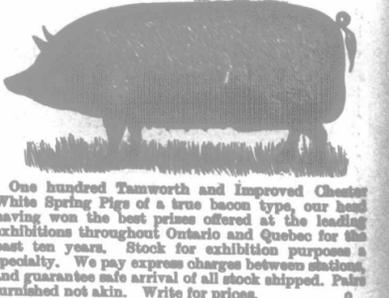
YORKSHIRES FOR SALE

From the pioneer herd of the Province of Quebec. Both sexes and all ages. Satisfaction guaranteed on all mail orders. Also Pekin Duck Eggs for sale, \$1.00 a setting, or \$1.75 for two settings. Address, **A. GILMORE & SONS, Athelstan, Que.** Railroad stations: **Athelstan, N. Y. C.; Huntingdon, G. T. R.**

LARGE YORKSHIRES

GLENBURN HERD—upwards of 100 fine spring pigs, sired by imported Hollywell Hewson. Also a few 6 month s'boars. Prices reasonable. **DAVID BARR, JR., BENTFREW, ONT.**

YORKSHIRES Boars fit for service, at reduced prices. Sows in farrow and ready to breed, and young stock on hand. Write for prices. **WM. HOWE, North Bruce, Ont.**



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

ENGLISH BERKSHIRES.

For Sale: Young boars of Bacon-type. Choice young pigs; pairs not akin supplied. Shorthorn bulls, also calves of both sexes. **JOHN RAOHY, Jr., Lennoxville, Que.**

RIVER VIEW FARM

ROBERT CLARKE, Importer and Breeder of Chester White Swine

Pigs shipped not akin to each other. For price and particulars, write **41 COOPER STREET, OTTAWA, ONT.**

YORKSHIRES. Six sows to farrow this month to imported boars. Orders booked for pigs at weaning. EGGS—M. B. and W. H. turkey, \$2.50 per setting. B and W. Rock, B. Orpington, B. Wyandotte, and Rouen duck eggs, \$1. **T. J. COLE, Box 188, Bowmanville, Ontario.**

MAPLE LODGE BERKSHIRES.

Having left Snelgrove and secured Maple Lodge Farm, Brampton, I am prepared to supply pigs of the best bacon type and breeding, with fresh blood added, and in as large numbers as ever. Have a few good young boars ready for service and fine sows ready to breed. Spring pigs have come strong, and we can supply pairs not akin. Address: **WILLIAM WILSON, Box 191, Brampton, Ont.**

YORKSHIRES

SPRING OFFERING: Show pigs of March farrow from imported sows. Boars and sows of breeding age, of great length and quality. Also some good imported sowbreds to show boars. Write **H. J. DAVIS, Woodstock, Ont., Importer and Breeder of Shorthorns and Yorkshires.**

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



Did you ever climb over a wire fence and find the wire slip down on the cross bar when you stepped on it, or find the cross bar so small or soft that it bent every place you stepped?
Lamb Fence will not do this because it is a heavy, hard wire cross bar, and is fastened to the laterals with a tie that will hold several times your weight.

The H. R. Lamb
Fence Co., Ltd.,

LONDON, ONTARIO.
WINNIPEG, MANITOBA.

WHY MEN ARE WEAK



And what method of restoring lack or waste of vitality in them is productive of best results, is a question which at present is being seriously considered by the medical profession the world over. Almost every doctor is introducing electricity into his practice in one form or another, which is the direct outcome of the recent announcements of the world's greatest scientists, and is a practical admission on the part of physicians of the superiority of electricity over drugs as a curative agent. You cannot possibly estimate the true import of the statements made by some of our greatest scientists at their convention recently held, where they claim that after five years of studious research they have discovered that electricity is the basis of human vitality, that without this fluid of life we cannot exist. I have been preaching on these same lines for the past twenty years. I did not discover—it was only my belief. My theory was founded upon the fact that the food that we eat is treated as fuel by the stomach, just the same as coal in a furnace. The chemical action which is produced upon the food by the acids and juices of the stomach burns the food and causes a carbonic heat. This heat is electricity, and it is forced into the nerves and vital organs and is their life. The electrical heat generated by the consumption of our food should keep healthy every vital organ of the body. Debility of the vital organs arises when the waste is greater than the repair, when the stomach is not able to generate sufficient electrical heat to supply the demands of nature. This is the source of decay in men. Now, what I claim is that my theory passes beyond (ELECTRICITY) may be restored to the human body. It is the marvel of electricians.

Dr. McLaughlin's Electric Belt.

It is life itself to any man who will wear it. I have been endeavoring to pound these facts into the public all this time, and will keep on doing so until they are generally accepted. My immense business is due to my knowledge of the effect of electricity upon the ailments treated and the best way to obtain that effect. I take every case that comes to me as an individual and direct the application of my Belt to suit the demands of each particular case. When you consider the fact that electricity, which I supply, is life to the organs into which I send it, you can see how I get my results. My success comes from my cures. If I did not cure my business would be worn out long ago, as has the business of every other maker of Electric Belts. A great many schemers and frauds have gone into the electric belt business because they found it was an easy way to make money, and have resorted to very questionable methods at times in order to dispose of their so-called appliance.

I Have an Electric Belt That Does Cure, and I am offering it to you in such a way that you take no chances whatever. Give me your name and address with a statement of your case, and I will at once arrange a Belt suitable for your case and you can

PAY WHEN CURED.

All I ask is that you give me reasonable security for my Belt while you are wearing it.

These Grateful People Appeal to You:

It is certainly wonderful how the electricity makes you feel fresh in the morning. It is a pleasure to again have the joy of living.

E. W. ELLIS, Sarnia, Ont.

Your Belt has cured my wife of Constipation of eight years' standing.

EDGAR ANDERSON, Dunnville, Ont.

I feel more energetic, more lively and better in every way. I have the great-

est confidence in my Belt and know I shall soon be completely cured.

NICHOLAS SULLIVAN, Waller, Ont.

If I can do anything to help you sell to others I will do so, for your Belt will cure anyone suffering from pains in any part of the body.

ROBERT RIMMER, Arcola, N.W.T.

I was so run down from lost manhood and rheumatism, that I was un-

able to work; your Belt has restored my strength, and I weigh heavier than I ever did before.

GEO. A. McLELLITT, Sun Springs, Assa.

Thank God that I, for one, am able to say that I have found something is everything to me, I am glad to say that you have afforded me a complete cure.

BISSELL J. NORTON, Aurora, Ont.

Any case of Rheumatism, Kidney Troubles, Lamé Back, Sciatica, Stomach Troubles, Nervous Debility, Lost Vitality, Lost Health and every indication that you are breaking down physically,

I Can Cure or Will Ask For No Pay

FREE BOOK. I want you to read my book, and learn the truth about my argument. If you are not as vigorous as you would like to be, if you have rheumatic pains, weak kidneys, loss of vitality, prostatic troubles, nervous spells, varicocele or any ailment of the kind that weakens you, it would assure your future happiness if you would look into this method of mine. Don't delay it; your best days are slipping by. If you want this book I send it closely sealed, free.

OFFICE HOURS:—9 a.m. to 6 p.m.; Wednesday and Saturday till 8.30 p.m.

DR. M. S. McLAUGHLIN, 180 YONGE ST. TORONTO, Can.

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

GOSSIP.

The book of live-stock champions issued by the National Farmer and Stock-grower, St. Louis, Mo., a publication of about 200 pages, illustrated with more than that number of photo-engravings of prizewinning horses, cattle, sheep and swine, has been received at this office, for which we return thanks.

Messrs. Truman, of the Pioneer Stud Farm, Bushnell, Ill., write that their Mr. H. W. Truman calls for their home in England this week, and will bring back with him a select lot of stallions of the different breeds they import. Their trade the last month has been better than they ever experienced; more than half of the importation received on the 6th of last month being already sold. They enclose a letter received from Mr. H. Marshall, of Kent Co., Ont., who purchased from their London branch stables, the imported stallion, Dornock, in which he states: "He weighed 2,050 lbs., off the cars at destination, and won first prize in Clyde class at Chatham on day of arrival, and sweepstakes for draft horse, competing with Shires, Percherons and Suffolk Punch."

A look through the catalogue of the 60 head of Shorthorn cattle from six first-class Canadian herds, advertised to be sold by auction at Hamilton, Ont., on June 28th, discloses that besides being a richly-bred lot, showing a splendid list of high-class Scotch-bred bulls in their pedigree, and representing many of the best families known, they are all young, or in the prime of life, only half a dozen in the whole offering being seven years old, while fully two-thirds of them are under five years. In most cases those over this age have calves at foot to be sold with them, and in many instances the cow is again in calf to one of the high-class bulls in service in the herds from which the offerings come. And a notable feature is the character and quality of these sires, which uniformly measure up to the standard of the best in breeding and type. Those interested, who have not secured the catalogue, should lose no time in making application for it, and we are certain they will conclude from a study of its pages that this sale includes an unusually desirable class of cattle.

KITCHEN COMFORT.

Do not forget, if there is room, to add a comfortable chair for the kitchen. A willow rocker of comfortable cut can be given a coat of black enamel, and with washable covers for the seat-cushion and back-rest, afford one the "ten minutes' rest" which physicians are constantly enjoining one to take, promising as a reward length of days, and good health while they last. In the kitchen cabinet can be tucked away a bit of sewing, or an interesting book, and while waiting for a kettle of water or when something must be watched while baking, drop into the chair, and, with "pick-up work" or book, obtain that change of labor which is rest.

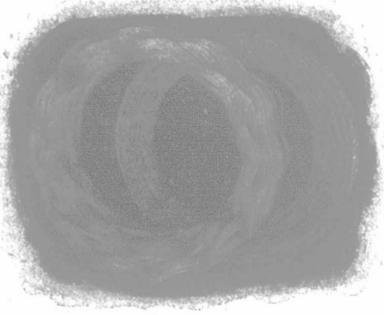
TRADE TOPICS.

SEPARATION AND COMBINATION, these are the prominent features of the New Century American cream separator. It separates all the cream from the milk, but combines in the operation cleanliness, speed, economy, and ease of operation. Thousands of these machines are in use, and may be investigated by anyone contemplating buying this most useful of farm utensils. See the advertisement of C. Richardson, and write him for catalogue to St. Mary's, Ont.

NATIONAL CREAM SEPARATORS.—There are different methods of separating cream from milk, and in these days of intensive farming, the method that gives the largest amount of fat, does the work easier and quickest, is naturally the best for the busy farmer. This brings one to the question of separators, a question that cannot be discussed without an examination into the merits of the National. Like the other well-known machine turned out by the Raymond people, at Guelph, the National is built, first, to wear, then to do the best work, and, lastly, to run as easily as a machine having the two former requisites can possibly be turned. Read the new announcement in their changed advertisement, and try the National before purchasing any other.

London Coiled Spring Steel Wire

NOTHING BETTER ON EARTH. Have you ever tried No. 12 gauge London Coiled Spring Steel Wire? Thirty-four feet in one pound, yet much stronger than a common No. 9 wire. It makes a strong and durable fence at a little over half the usual cost. If you have never used it before, try it, but be sure you get "London" tin-tags.

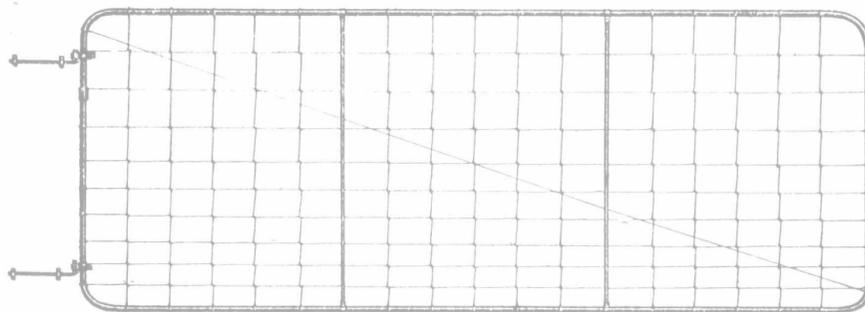
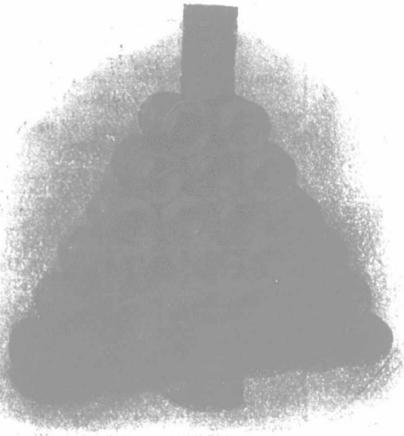


Why Turn a Crank

when we can supply you with Balled Wire for weaving at less extra money than the value of the time required to wind it? When you buy "London" Balled Wire you know the quality is right—it is made for the purpose—strong and tough, also well and smoothly galvanized.

London Steel Gates

ARE BEST ON EARTH. Their corners are not flattened in bending; the center supports or bars are held secure from slipping by a malleable casting of special form clamped on. "London" Gates are cross-braced, making them more rigid and firm, and are coated with paint specially prepared for preserving the metal from corroding.



All Large Size London Gates Have Two Braces.

LONDON FENCE MACHINE CO., LTD., LONDON, CANADA.



This Eccentric Wheel

for driving the Binding Attachment, is used only on the

**FROST & WOOD
NO. 3 BINDER.**

This device produces:

- 1st. Power to bind tight and save twine.
- 2nd. Speed to quickly discharge and return the needle, to prevent clogging in a heavy harvest.

It, therefore, equalizes the otherwise unequal strains of binding and discharging, and makes light draft, a prime requisite in a binder to every farmer who places value on his teams.



Our Catalogue F illustrates the No. 3 in detail. Every farmer should have our handy memo. book also; it's free.

BRANCHES:

Winnipeg, Man.;
Toronto, Ont.;
London, Ont.



Montreal, Que.;
Quebec, Que.;
St. John, N. B.;
Truro, N. S.

HEAD OFFICE AND WORKS: SMITH'S FALLS, ONT.

Binder Twine

BLUE RIBBON,	650 feet per pound
RED CAP,	600 " " "
TIGER,	550 " " "
GOLDEN CROWN,	500 " " "
STANDARD,	500 " " "
SISAL,	500 " " "

Blue Ribbon is no doubt the Queen of Binder Twine. It runs six hundred and fifty feet to the pound, and is manufactured from most select Manila Fibre. Six hundred and fifty feet Twine is the only Twine manufactured entirely from Manila Fibre. Dealers should be aware of so-called "Manila" Twines which are advertised to measure less than 650 feet to the pound. They are mixed Twines. **Write for Samples.**

CONSUMERS' CORDAGE COMPANY, LIMITED

HALIFAX, N. S.

MONTREAL, QUE.



ARNDT TREE PROTECTOR

(BRASS BAND.)

SIMPLE, EFFECTIVE, INEXPENSIVE.

Absolutely the most positive preventive against all creeping and crawling insects. It will save the trees. **Save time and labor. Save money.**

This simple brass band is patented and put upon the market as pre-eminently the very best and surest device yet invented for preventing the encroachment of all creeping and climbing insects. It is made of brass, does not corrode or rust, does not take an expert to place on a tree, and when once on overcomes all the difficulties met with by other methods of tree protecting, and lasts for years. No chemicals used. The Arndt Tree Protector comes in coils of twenty (20) feet, neatly and securely packed in boxes, with brass fasteners and cotton wadding, and with full directions for use on each box.

ARNDT TREE PROTECTOR, Limited

F. V. PARSONS, Manager.

Office: Standard Stock Exchange Bldg., No. 43 Scott St., Toronto, Ont.
Write us for pamphlets giving full particulars and rates. **Live agents wanted.**

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