

GUELPH, ONIANO	THE TATTOOING MACHINE; SHEEP OR DOGS, WHICH?	
CATALOGUE No. 40 FREE ON REQUEST.	TANK DOWN DEPORT IN ONTARIO	
	BEAUTIFY THE FARM	
	THE SILO: WHEN AND HOW TO FILL II, OUR HER BEST GOING 635	
	HEALTH ON THE FARM AFFECTED BY INSECTO, THE DEAL GOR FROM SICKLES TO BINDERS OUR SCOTTISH LETTER; GAMBLING AT LOCAL FAIRS; BEST KNIFE 637 OUR SCOTTISH LETTER; GAMBLING AT LOCAL FAIRS; BUSINESS ENERGY IN QUEBEC	
LITO IC NORT	OUR SCOTTISH LETTER; GAMBLING AT LOCAL FAIRS; BEST KNIFE 03/	
Life is Short!	OUR SCOTTING LETTER, GENERALTER, BUSINESS ENERGY IN QUEBEC DAIRY, A FANCY BRAND OF CHEESE; BUSINESS ENERGY IN QUEBEC DAIRY; SOME MISTAKES IN BUTTERMAKING	
LIIU IU GIIVIII	DAIRY ; SOME AND OTHER PROBLEMS	
TIME MEANS MONEY	GARDEN AND ORUHARDU FALLY POTATOES	STEEL
THATE MEANO MONE!		
TO EVERY EARMER		SHINGLES:
TO EVERY FARMER.	APIARY,-FAIL FEEDING; THE HONAT CHAPTER CLOVER 5. 642	• Ormedere
The most successful farmers in Can-	FOULTEYGOOD AND BAD TITES OF MANAGERY CHEESE REPORTS;	Are made so carefully and
ada read the FARMER'S ADVOCATE;	FARM GOSSIP THE MANITOBA CHOP, ANTA , BIG PROFITS IN GROW-	accurately that they are fitted
they think about their work, they act	NORTHWEST DOTTING TIME PUTTO HOPSES BIG CREAMERY	together with perfect ease.
moon its teachings, and they are its	ING CLOVER SEED; JAPAN BOTS INVESTIGATILE COMPANY FAILURE; BREEDS OF HOGS IN IRELAND; CATTLE	 Their natent side lock is the
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contributors are specialists. The AD-	COLLEGE IMPROVEMENTS; DEWARE OF MARKE OF STREAM OF CONCEPTS IN SESSION; ERN WHEAT CROP; CANADIAN MANUFACTURERS IN SESSION;	ever came across, its a
TOCATE contains the cream of agricui-	ERN WHEAT CROP; CANADIAN MANUFACTOR EXPORTS OF WESTERN FAIR PROSPECTS BRIGHT; INCREASING EXPORTS OF	great help to be able to
tured thought and practical men con-	CANADIAN LIVE STOCK ; FRENN MADEET TORONTO : CROPS IN	annly them so quickly and
timue to read it necause it Days utcut,	MENTS IN WESTERN CATTLE MARKER MACHINEBY COMBINA- OTTAWA DISTRICT: U. S. HARVESTER MACHINEBY COMBINA-	They are the popular
and herause they want the best. Reau	OTTAWA DISTRICT; U. S. HARVESTEE INCOMINDATES; SOUTH TION; SOME NEW FALL WHEATS; EXHIBITION DATES; SOUTH 644-647	lightning, rust and fire proof
the energy inducement to new sur-	PEEL ONT: A NUMBER	a reacting for all farm build-
soriborg viz from now till the end of	QUESTIONS AND ANSWERS. VETERINARY: THOROUGHPIN; ECZEMA; HEAVES; INFLUENZA; VETERINARY: THOROUGHPIN; ECZEMA; HEAVES; INFLUENZA; 648	a ingre Don't be bening the
1002 for \$1 See the premium inst on	VETERINARY: THOROUGHPIN; ECZEMAN, WORMS IN MARE 648 NASAL GLEET; BARBED-WIRE WOUND; WORMS IN MARE 648	• times. USE EASTLAKES.
pages 653 and 654 for those who send in	MISCELLANEOUS: CEMENT OF FLOURS DUCKE DVING: TO MAKE	
new names. We want thousands of		a se talla Decling On 144
new subscribers who will appreciate	CISTERN WATER-TIGHT, VARIATION LIVE STOCK	Metallic Roofing Co., Ltd.
something good. The sooner they	MARKETS -OHICAGO; BUFFALO; TORONIO MILLE STOCK	
Time is money. Read ! think ! act !	EOMIE MAGAZINE	TORONTO MONTREAL WINNIPEG
Time is money. Tread ? unink ? door	THE MARILION DIVISION OF A CONCENTRATE TO A CONCENTRATE AND A CONC	
ADVEDTION IN THE	A FARMER'S COMBINE; CANDA'S HUMAN 618B, 657, 661, 666A	
ADVERTISE IN THE	A FARMER'S COMBINE; CANDA'S AGRICULTURAL 618B, 657, 661, 666A NOTRUMB	
P Adversets	PUBLISHED TWICE A MONTH AT LONDON AND WINNIPES, CAN.	PLEASE MENTION FARMER'S ADVOCATE.
Farmer's Advocate.	PUBLISHED TWICE A MUNIH AL LUNUUN AND WINNIPLO, OAN	IPPWAP mentione transmission

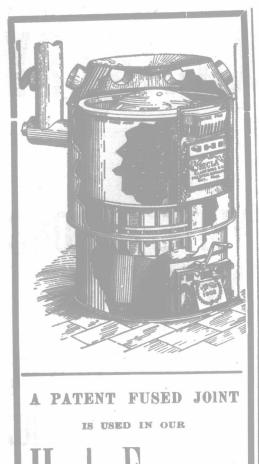
JI MICRO SAFETY A N





THE "WHITE" CORN HUSKER AND SHREDDER, WITH WIND STACKER AND SELF-FEEDER, READY FOR THE ROAD.





To render it gas, smoke and dust tight. By means of this method of construction we fuse the steel and iron into one solid piece without the use of cement or bolts.

Another feature of the HECLA is that it will burn

ANY KIND OF FUEL

coal, wood or peat.

If you should desire a furnace for wood only, we should recommend our

HILBORN

This furnace is so constructed that it will burn up large, rough wood to good advantage. It



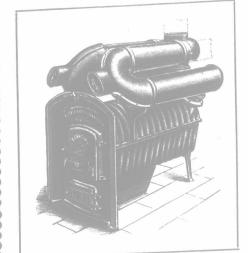
We do not give premiums with the "FARMER'S ADVOCATE," it is such a good premium of itself. People do not expect anything more. The farmer is entitled to the best and most up-todate paper possible, dealing with all departments of his occupation and business, and also devoted to the home life on the farm. Not how cheap, but how good, is the "ADVOCATE's " motto, and this is the secret of its popularity and success. Our premiums, an attractive list of which appears on pages 653 and 654 of this issue, go to present readers who secure new yearly subscribers to the paper. Show the paper to your friends. They will see its excellence at a glance, and the more they become acquainted with it the better they will appreciate it. The subscription price is small, quality considered, and as an additional strong inducement, in order to double our subscription list, we have decided to give every issue of this paper from now till the end of 1903, including the beautiful Christmas numbers of both years, for the regular yearly rate, \$1.

GOSSIP.

Goodwood stock farm lies in the county of Simcoe, four miles from Orillia; the owner, Mr. C. H. Rowe, is well known as an extensive breeder of Shropshire sheep. His present flock numbers 100 head of typical animals, among which are eight shearling rams, sired by Crosby 133454, a grandson of the noted Newton Lord, imp. He is also sire of this season's crop of lambs, a very even, well-covered lot, standing on short legs. The whole flock are in splendid condition. Mr. Rowe is offering for sale, in addition to the above-mentioned rams, 12 shearling ewes, a number of aged ewes, and this year's lambs. All told, there are for sale about 60 head. He reports sales for the last year as very satisfactory, some of the sheep going as far as Nova Scotia.

SEND

****** BURNS W



THIS IS THE MOST SUCCESSFUL WOOD FURNACE ON THE MARKET. BUILT TO GIVE GOOD HEAT AT A LITTLE COST IN FUEL. IT'S CALLED THE

FOUNDED 1866

CONOA

Represents our latest and most successful effort to solve the question of economical and effective heating in country districts, where coal is expensive and hard to get.

The "Economy" is being used in thousands of com ortable homes the Dominion over, and is universally praised.

Write for particulars.

We also manufacture all classes of warm air, steam, hot water and combination heaters.

J. F. Pease Furnace Co., Ltd. Head Office: 189-193 Queen St., East, TORONTO, CANADA.

J. H. ASHDOWN HARDWARE CO, Limited, Wholesale Agts., WINNIPEG. W. J. MAXWELL, Main St., City Agent, WINNIPEG.

USTRATED FOR IL **BICYCLES:**

We have made another large purchase of second-hand wheels. We may say these wheels if anything are better than

has a large fire-door and immense radiating surface, making it a powerful heater.

We are always pleased to give advice re heating systems, and ask you to write us. If you send a rough sketch, we shall submit plans and estimates free.



Preston, Ontario. Winnipeg, Manitoba.





NOTICE.

IN OXFORD COUNTY there are

choice farms for sale. If you are inter-

ested see advertisement of Ormsby &

Clapp, Real Estate Agents, Woodstock.

Ont., in this number. Amongst others

that are favorites they are offering a

market garden close to the city. It .s

GOSSIP. Within the corporate limits of the Vil-

said to be a money-maker.

SIO.OO. these wheels if anything are better than the previous lot purchased by us. During the last ten months we have sold hundreds of wheels all over the Dominion, and in a great many instances orders were repeated; and from the series that can be procured, wheels all freshly enamal.ed before being sent out, and with each wheel we send a full kit of tools and tool bag. They are nicely crated, for which we make no extra charge. We have wheels for both

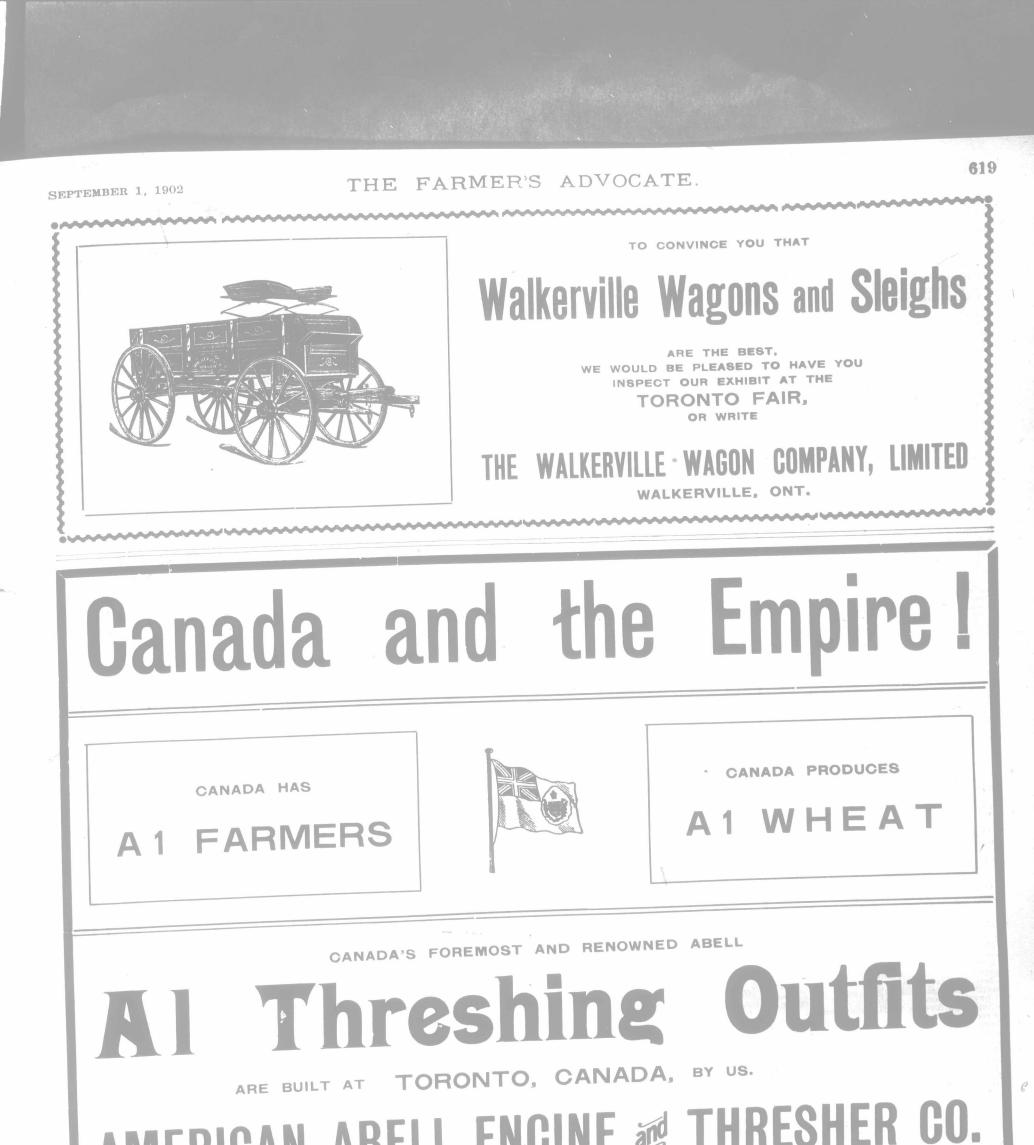
LADIES and GENTLEMEN.

166-168 KING ST. EAST,

(3 DOORS WEST GEORGE ST.)

ler is the splendid four-year-old red seven months to three years old, all cow, Jessie's Beauty, by imp. Kin- good ones. Royal Stamp 29873 is by nellar Sort. Another daughter, also a Sittyton Hero 23313; dam Scottish good one, is the two-year-old Jessie Lass 2nd, by imp. Premier Earl. He is Blossom, by the herd bull, Royal Stamp a massive, thick, evenly-built animal, 29873. Her youngest daughter is the and a splendid stock getter. There are seven-months-old roan heifer, sired by for sale a couple of good young bulls the stock bull. She will make a finy and several heifers. The Shropshires are animal. The Strawberry foundation is of Mansell strain. This season's crop of Strawberry 5th 23168, by Athelstane lambs will be for sale, the major part Within the corporate limits of the Vil-lage of Stouffville lies Bonnie Burn Stock Farm, the property of Mr. D. H. Rusnell, breeder of Shorthorn cattle, Shropshire sheep and Berkshire hogs The Shorthorns are represented by the well-known Lavinia and Strawberry families, the foundation Lavinia cow be-ing Jessie Jones 27941, by Prince of Carrick 17848; dam Jessie Gallaway 17699, by Earl of Lennox 8547. She is months-old heifer by the stock bull. Ai- breeders generally.

a roan of superior make-up, and out of | together there are several heifers from



AMERICAN-ABELL ENGINE MIHKESHEK GU.



84 WELLINGTON ST.,

0 Manufacturers of the celebrated CHAMPION MAPLE SYRUP EVAPORATORS.



FOUNDED 1866

The Hamilton Shorthorn Sale.

620

Though held in the midst of a heavy harvest. when farmers must have realized that time is money, a large number managed to attend on Aug. 13th the initial cattle sale in the conven-ient and comfortable Pavilion erected by the Hamilton Stock Yards Company for the pur-

CONTRIBUTION OF W. D. FLATT, HAMILTON, ONT.

Cours and Heifers-

\$1,700 00 900 00 850 00 605 00

600 00

510 00 410 00

350.00

Earl Bud, 1 year; Jas, Gibb, Brooksdale, Ont. 300.00

300.00

CONTRIBUTED BY W. G. PETTIT & SONS, FREEMAN, ONT.

Cows and Heifers-

Cows and Heifers-Topsy (imp.), age 3 years; Ellis Williams, Mt. Perry, Ohio. Rosie 3rd (imp.), 4 years; S. J. Pearson & Son, Meadowvale, Ont. Fortuna 4th (imp.), 2 years; F. G. Mc-Cain, Mercer, Penn. Sweet Fragrance (imp.), 4 years; A. Chrystal, Marshall, Mich. Cherry Blossom 4th (imp.), 3 years; A. Chrystal, Marshall, Mich. Craibstone (imp.), 3 years; A. Chrystal, Marshall, Mich. Rose of Towie 4th, 2 years; Hon. John Dryden, Brooklin, Ont. Mabel Character, 3 years; Jas. Dunlop, Hamilton, Ont. Belle 8th, 9 years; Geo. C. Carey, St. Johnsburg, V1. 630.00 610.00

600 00

600 00 600 00

540 00

470 00 255 00

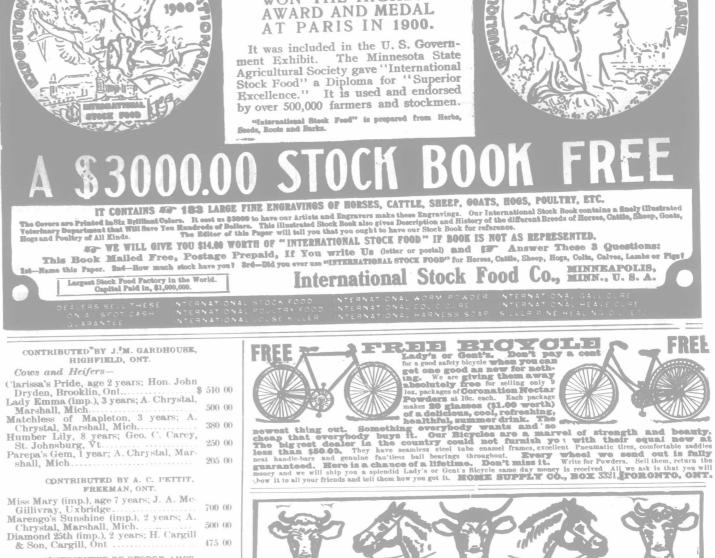
220 00

Ont Claret's Perfection, 1 year; E. Williams, Mt. Perry, Ohio. Maud Languish, 2 years: Geo. C. Carey, St. Johnsburg, Vt. 185 00 Bull-Checkmate, 1 year; R. Watson & Son, Mineral Ridge, Ohio 145 00 CONTRIBUTED BY JAMES DOUGLAS, CALEDONIA, ONT.

shall, Mich... ily White, 1 year; Geo. M. Woody, Collins, Iowa

Bowhill English Lady, age 3 years; Jas. Crerar, Shakespeare, Ont...... Mavis, 1 year; H. Cargill & Son, Cargill, Ont

CONTRIBUTED BY HARRY SMITH, HAY, ONT.



NTERNATIONAL

STOCK FOOD

WON THE HIGHEST

Few Spavins Incurable. Now Nearly all can be cured, most can be removed with a single 45-minute application. It is useless to question this because we charge nothing for Fleming's Spavin Cure if it ever fails. Equally certain for Ringbone, Splint and Curb. "I write to thank you for the good accom-plished with the Spavin Cure. It is worth its weight in gold." So writes Judge F. R. Tarver, Tusculum, Ga., May 10, 1901. We wish to send you more such reports and a valuable booklet.

They Put a Stop

to Loss on Stock



315 00

260 00

155 00

150.00

310 00

210 00

195 00

Geo. C. Carey, S Johnsbury, Vt. 185 00 Bulls-

Scottish Hero (imp.), 2 years; Jas. Cre-rar, Shakespeare, Ont. Prince George (imp.), 3 years; Geo. Les-lie, Rockwood, Ont. 375 00

270 00

CONTRIBUTED BY CAPT, T. E. ROBSON,

Cows and Heifers-

Goldie 46th (imp.), age 3 years; H. Car-gill & Son, Cargill, Ont Roan Queen, 1 year; Ellis Williams, Mt. Perry, Ohio. Lady Mina, 5 years; C. Fishbeck, How-750 00

350.00

260 00

ell, Mich. Burnbrae Nettie, 1 year; C. Fishbeck, Howell, Mich. 140.00 Bull-

CONTRIBUTED BY ROBT. MILLER, STOUFFVILLE, ONT.

Cours and Heifers-

Cows and Hei'ers-Sittyton't Gloster 11th, age 2 years; J. F. Richards & Son, Lowville, Ont... Red Jessamine, 2 years; A. Chrystal, Marshall, Mich. Beaver Meadow Nellie, 7 years; W. C. Renfrew, Stouffville, Ont... Marjory, 6 years; A. Chrystal, Marshall, Mich. Lady of Pickering, 5 years; Geo. C. Carev, St. Johnsburg, Vt. Roan Lady, 4 years; A. Chrystal, Mar-shall, Mich. Golden Lily, 2 years; Geo. C. Carey, St. Johnsburg, Vt. Muriel, 2 years; C. Fishbeck, Howell, Mich. 375 00 325 (0)

280 00

275 00

275 00

260-00

200-00

190.00

Mich Lady Roberts, 1 year, C. Fishbeck; Howell, Mich 180/00 Bull-

Baron Nonpareil, 1 year; J. F. Green, Gregory, Texas. 360-00 Cows and Heifers-

Cows and Heifers-

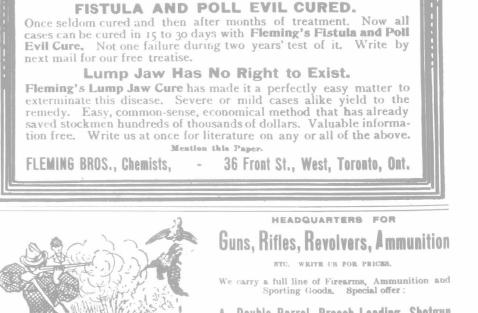
Cours and Heifers-

Cows and Heifers-

Ont

Queen Alice, age 1 year; Ellis Williams, Mt. Perry, Ohio. Britannia 54th, 1 year; John MacAvoy, Saginaw, Mich. 330 00 250 00 Elgitha 32nd, 1 year; John MacAvoy, Saginaw, Mich. Britannia 50th, 2 years; A Chrystal, Mar-shall, Mich. 155 00 150 00

Total			ų.,	a Bay Chart	
General average				\$420	0
Five bulls averaged.				. 631	00
Fifty-four females averaged				. 119	75



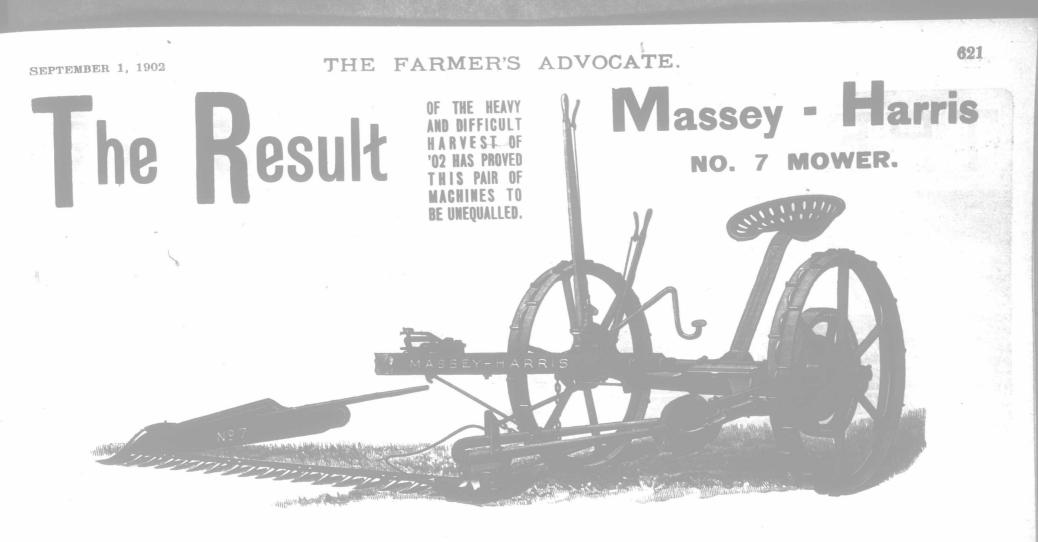


A Double-Barrel Breech-Loading Shotgun ONLY \$8.50.

A perfect gun, 12 gauge, top action, chequered pistol grip, walout stock, rebounding locks, laminated steel barrels, Richards make.

FRED HAMILTON, HAMILTON, UNT. Wholesale and Retail -000

HARDWARE and SPORTING GOODS.



No Breaks No Stops No Clogging No Choking

Perfection.







MASSEY-HARRIS COMPANY, LTD.

FACTORIES AT TORONTO AND BRANTFORD, ONTARIO.



Fine lithographic hanger of Gang Plow or of Grinder sent on request.

WE have reduced our prices, and are prepared to

is obtainable anywhere. All work done with our cement

according to our instructions is guaranteed to be abso-

lutely perfect. A barrel of Queenston Cement, though

weighing less, contains just as many cubic inches of

cement as any barrel of Portland. In mixing concrete,

the cement is gauged by measure, not by weight. Farm-

ers and others will do well to remember this fact, and not

be misled by false statements. Write me, or see my

Isaac Usher,

QUEENSTON, ONT.

demonstrate that no better value for the money

Cement

0

Winnipeg Heater Co. OF TORONTO, LTD. 77 VICTORIA ST., TORONTO, CAN.

FLEURY'S SONS, AURORA, CAN.

Jueenston

agents, for full particulars.

-om

GOSSIP.

REMARKABLE HOLSTEIN COWS.

The illustration in the August 15th issue of the "Advocate," of the great Holstein cow, Iosco Pride, winner of the championship at the Toronto and Pan-American Exhibitions last year, and the picture in this issue of the grand young cow, Calamity Jane 2nd, represent the Brookbank hend of Mr. Geo. Rice, Currie's Crossing, Ont., which has made for itself a continental reputation in prizewinning and milk and butter records. Calamity Jane 2nd figures in the list of officially authenticated Holstein-Friesian butter tests for seven consecutive days for 1901-2, in the class for cows 3 years and under 31. At 3 years 4 months 13 days, 12 days after dalving. she gave in the seven days of the test, 441.3 lbs. milk (average 61 lbs.), 15.479 lbs. butter-fat, average test of fat 3.51, highest test 4.0, equivalent fat 3.51, highest test 4.0, equivalent of butter 80 per cent. butter-fat 19.56 lbs., or 18.09 lbs. 85 per cent. butter-fat; and secured the third prize of \$30 in the Ali-American competition for cows of her age. She is a young cow, of superior dairy type and quality, and when she reaches maturity will probably equal her illustrious mother, Calamity Jane, who holds the record im a public test and is one of the greatest of the breed.

Oxford County Farm Sale. A snap for some one. One of the best farms in this famous dairy district for sale at a very low figure, 225 acres first class land, capital buildings, high state of cultivation, 23 miles from Woodstock. Ap-ply ORMSBY & OLAPP, Real Estate Agents. o Woodstock, Ont.

Farm for Sale or Rent

IN COUNTY OF WELLINGTON.

300 acres, lots 3, 4 and 5, Con. 3, Township of Pilkington, 2 miles from Alma (G. T. R.), 5 from Elora, 20 from Guelph; one of the best farms for stock or grain in Ontarlo. Two sets of buildings. Suitable to be farmed as one, two or three farms. For particulars apply to the undersigned, on the premises, or by letter.

James Hunter, Alma P. O., Ont.

Wide-Tire Metal Wheels FOR WAGONS. Made to fit any axle, any sized wheel, any width tire. Every farmer should have a set. They are low and handy. They save labor, and the wide tires avoid cutting the farms into ruts. Write for Prices. **Dominion Wrought Iron** om Wheel GO., LTD., 9 AND 11 BROCK AVE., TORONTO, ONT.

LONDON, ONT., AND WINNIPEG, MAN., SEPTEMBER 1, 1902. VOL. XXXVII.

EDITORIAL.

"PERSEVERE AND SUCCEED."

Pointers.

Reader, have you observed that good beef cattle were selling lately on the Chicago market up to \$9 per cwt., live weight ? It's worth thinking about. Why not have more of that class of animals to sell?

. . .

The stability of good breeding cattle was strikingly illustrated by the recent Shorthorn sale inaugurated and managed by the breeders at Hamilton, Ont., when 59 head, two-thirds of them Canadian-bred, sold for \$24,820, an average of over \$420 each.

The sugar beet is now a factor in Canadian farming. and 1902 a red-letter inaugural year. Here is the record in a nutshell : Four factories cstablished in the Province of Ontario; approximate investment, \$2,250,000; beet area under successful cultivation, 20,000 acres; prospective yield, 12 tons per acre, from which 25,000 tons of sugar should be produced. How will that do for a start?

"Whip," in the Horse Department of this issue of the "Farmer's Advocate," deals with a live and timely subject, viz., classification of horses at the shows. The conjusion of mind regarding types of horses to which he refers and which in a measure he aims to clear up, has been intensified by the almost infinite variety of classification to be found in various prize lists. As an ideal type of roadster to raise on the farm, our own famcy would be for a shade less of the greyhound conformation than "Alix," portrayed in "Whip's " excellent article.

0 0 1 So systematize and plan the work of the farm that there will be time for some wholesome recreation. If you value the lives and company of the wife and family, don't let it be one "everlasting grind," Don't run things all the time so has to roll into bed exhausted as that everybody soon as night falls. Intersperse a little music and other care-lightening diversion and have an outing now and then. You will be just as far ahead at the year's end. Don't be a slave.

offer to new subscribers all the issues, including the Christmas number, from now (Sept. 1st) till the end of 1903 for \$1; or, as a trial, from now till the end of 1902 for 25 cents. Test it yourself and send it to a friend to whom it would be helpful, or get him to subscribe.

The

Farmer's Kavocate

and Home Magazine.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

Will You Make the "Farmer's Advocate" More Helpful ?

Reader, do you get all the advantage from the various departments of the "Farmer's Advocate " that you ought? Do you obtain from its pages just the help that you need to make your work successful? Look over the various departments and consider which of them you would like to see strengthened, and in what particular ? From your point of view, what subjects require to be dealt with most fully ? Would you suggest any new departments? What class of engravings do you find most instructive? What articles do you find most beneficial? What we aim at is to make the "Farmer's Advocate" the ideal paper for the farmer, the stockman and the home. What we desire to know is your frank opinion on these points. The commendations that readers have been writing us are only an incentive to make the paper for the future better and more serviceable in a vastly enlarged constituency. If you are disposed to co-operate in these plans-and our relations in the past lead us to believe that you are-then write us at once, in the most concise way possible, your answers to the questions above. Re-read them carefully and then give your opinion now. From all localities and in whatever branch of agriculture you may be engaged, we look for a general response sent to the "Farmer's Advocate," Loudon, Ont., Canada. In this way you will be taking part in an editorial mission of helpfulness and progress. To all who do so we extend now, in advance, our hearty and sincere thanks.

A Good Season for the Dairyman.

The present season began with stocks of old cheese well out of the way, and a strong consumptive demand from the outset. Prices, both for cheese and butter, have ruled strong. In cheesemaking, it has been in several respects a record year. The weather has been most favorable, there being no extreme heat to make trouble in keeping milk or curing cheese. Overripe milk and gassy curds have been the exception. Good water has been abundant and the grass luxuriant, so that the July make was about equal to June, and August was well sustained in that respect. Cheese has gone forward to England in good condition and the returning reports as to its quality most favorable. As a result, Canadian cheese will hereafter hold a distinctively higher notch in popular esteem in Great Britain. Last year's warnings, too, have probably had an improving effect upon the methods of some who had been drifting into careless habits and whose make and curing rooms were sadly in need of betterment. Great advances are still necessary, however, in this respect. Taken all round, the summer dairy season of 1902 has not been equalled for probably 25 years, in the opinion of dairymen who have been intimately associated with the industry during that period. There has been a large make and good prices, and when the high prices of hogs, the uniform adjunct of the dairy farm, is taken into consideration, it may well be said that the lines have fallen unto the dairy farmer in pleasant places.

Farmers, Aim High.

Success, in its truest sense, is only attained after strenuous efforts have been repeatedly put forth. We never place the highest value upon anything that has been easily won. In the schoolboy's life it is the hard-contested struggle for supremacy, whether in the classroom or on the campus, that is fully appreciated even by the winner. In the show-ring it is the same. When an animal wins in a keenly-contested class, the owner is justly proud, but how much more so would he naturally be if the breeding, feeding and management of that animal were the product of his own skill and labor. A man might purchase a splendid animal and win first honors, but could he feel the same deep thrill of satisfaction as the other ? Have a definite, lofty aim, and vigorously strain to reach it. Think of the satisfaction that awaits the successful completion of welldirected effort ; think of the uplift and stimulus your achievement must necessarily implant in others, and think of the benefit your kindred and country will reap through you. Be up and at your work, for it is waiting, and no one can do it for you as well. The high ideal belongs as truly to the farmer as to any citizen of our land. Make your fields more productive, rear animals of the most approved type, bend your energies to drive out the profit-sapping weeds ; produce the best grain, butter and poultry, and the choicest fruit; add to the appearance and general usefulness of your farm. These and many other difficult problems call for thought and pluck. Look upon these difficulties as opportunities, for they certainly are to the extent that they bring out the true worth of individualism; surmount them; set a pace for others to follow. Example is the strongest teacher. Place yours in the foremost rank. To estimate the benefits derived from a life spent in this manner is beyond us. They are so far-reaching and many-sided that human nature can neither fathom or soar to the almost boundless possibilities for good which a farmer possesses when he is fired with a high aim, securecoupled to that all-important quality, perse-

No. 557

ESTABLISHED 1866

The bachelor editor-in chief of one of our exchanges has been taking his summer holidays on a Canadian farm, and this is what he thinks about what he saw : "Somehow or other the girls of our farms have gathered all of the beauty of their ancestry, and improved upon it. For I say, not for the purpose of flattery, nor to win favor, but to speak the truth, that it is the loweliest type of womanhood the planet ever beheld." He will likely be taking another trip before long. * * *

Amid all the ups and downs of Canadian politics, in wartime and peace, coronation or no coronation, the Canadian dairy cow continues to do a profitable business at the old stand. 4 4 8

A multiplicity of newspapers, political and otherwise, cater for the patronage of the farmer. No occupation makes greater demands upon the capacity, and intelligence of those pursuing it than farming. Hence the need for a periodical devoted exclusively to its various departments. A high-class, practical paper is the farmer's best ally. To double the constituency of the "Farmer's Advocate " this season, the management now verance

A Canadian Transportation Policy.

Hon. J. Israel Tarte hit the nail on the head at the banquet of the Canadian Manufacturers Association in Halifax, when he declared that the problem of Canada was the problem of transportation. Proper facilities, at equitable rates, for the carriage of animals and their products and the products of the field and orchard over Canadian highways constitutes the most outstanding need of Canadian agriculture. If statesmen and officials will attend to this end of the business, the intelligence, enterprise and industry of the Canadian farmer will do the rest.

Another point: How shall Eastern and Western Canada be kept together in comity of interest ?. Very largely by favorable transportation rates on the manufactures, breeding animals and products of Eastern Canada required in the West, and adequate facilities at fair rates for carrying eastward the grain and live stock of Manitoba and the Northwest. Facilities and rates should be such as to furnish the people of Manitoba and the Territories with all the British Columbia or Ontario fruit they want, and to promote generally an interchange of products between the Canadian Provinces.

FOUNDED 1866

THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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

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Learn Something.

Of the various channels through which education may be obtained, reading and observation are within easy reach of every farmer. As you go about the shows this year, keep your eyes open. Don't make the visit to the exhibition a matter of pleasure marely, but strive to learn something, and when you return home, read the best agricultural paper in the country to maintain the interest in high-class stock and farm produce which the outing has aroused. Life is too short to learn from actual practice everything required to be known on a farm. The experience of others, if obtained from a reliable source, may become a valuable acquisition.



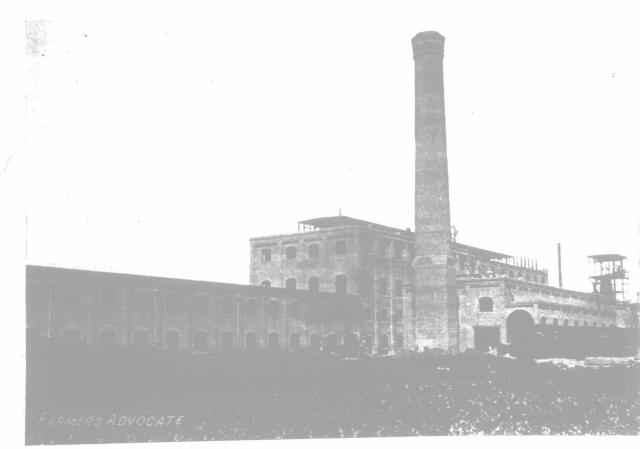
GLIMPSE OF D. A. GORDON'S 18-ACRE SUGAR-BEEF FIELD, WALLACEBURG, ONT.

The Canadian Farmer's Compensations. The immense area of cultivable land in Canada, the great variety of climate und conditions ordinarily prevailing in the various sections of the Dominion, and the wide variety of food products the country is capable, under average conditions, of maturing, place our people in a peculiarly fortunate position. The different provinces furnish a market for each other in respect to many commodities to such an extent that in case of a partial failure of crops, owing to unfavorable weather conditions in any one or more sections, the needs of the people may be readily supplied at a minimum of cost, thereby avoiding suffering or serious inconvenience. Happily, as the result of scientific research and experimentation, the apparent necessity of dependence of the Provinces upon each other for certain varieties of food products becomes less as the years go by, new and improved varieties and methods of production rendering it possible to successfully produce many articles in each district which had formerly been considered unsuitable to the local conditions, if not, indeed, impossible of attainment. For these reasons, the danger of a general shortage, owing to protracted drouths or other contingencies, is minimized, and our people have. happily, never been, and are not likely to be at any time, reduced to the privations to which those of occanally famine-stricken countries have, from time

to time, been subjected For this we should be devoutly thankful, and the spirit of complaining liable to prevail when unusual weather conditions disappoint our highest hopes should be checked and our mercies, rather than our miseries, recounted. It is safe to say that few, if any, people in this world have fewer distresses or disabilities of a general character, taking the years as they come, then we in Canada. The general exemption from disastrous storms and floods, or of extreme and widespread drouths or hot-wind waves, such as in some countries shrivel the grain when in the milk stage and in a few days blight the brightest hopes of the husbandman on the verge of a promising harvest yield, is cause for gratification.

Complaining of the character of the weather in the last few weeks has been common among farmers in many sections of Eastern Canada, and not without cause, fine crops of clover in many cases having been seriously damaged in the attempt to cure it between intermittent rains, the corn crop suffering severely from wet feet, the barley badly discolored, and the wheat, here and there, sprouting in the stook. These are discouraging dispensations, which add much to the labor and expense of harvesting, and to some extent discount the value of the product. But to the older people this is no new experience, for though they may have nearly forgotten similar distresses in bygone years, yet memory may re call many more serious losses from the same cause when the people were less able to bear them, and they came safely through such trials, finding the rainbow in the cloud, presaging brighter days ahead. Happily, in these times farmers are not depending solely upon the sale of grain for financial returns, and slightly damaged grain makes capital feed for the cattle and hogs which are the real money-makers on most of the farms in older Canada to-day, and the very conditions which have discounted the market value of the grain have helped to fill the milk pails and the cream cans far beyond the common summer measure, and have kept the beef cattle well supplied with succulent pastures, putting on flesh that sells for higher prices than have ruled for many years. The law of compensation has been quietly at work, despite the grumbling of the grumblers and the fears of the fearful, and the net result to the farmers. taking all things into account, will doubtless be a successful season, probably quite beyond the average in this regard, and affording much cause for thankfulness when our circumstances are compared with those of many others.

624



THE WALLACEBURG, ONT., BEET-SUGAR FACTORY

The fair season has opened auspiciously, and the indications promise a better display than usual in nearly every department,, with many new and improved features calculated to increase their interest and usefulness. The success of the fairs depends largely upon the patronage of the people and the use they make of the programme of events. It is, or should be, the interest of all to make the fairs as helpful as possible.

THE FARMER'S ADVOCATE

Our New Industry.

CANADIAN BEET SUGAR A REALITY

Although one hundred and fifty years have elapsed since Achard, a German investigator, discovered that sugar could be secured from the beei. no successful attempt at its wholesale manufacture was made until 1870. Over twenty years ago, two factories were started in Quebec, but failed, through lack of capital, mismanagement and indisposition of farmers to grow the beets. ()f recent years, however, the industry has made great strides in Europe and the United States. and can now be said to have become firmly implanted on Canadian soil, Within a few weeks, the production of sugar from the sugar beet will have been accomplished in our own land, and the prospects for its future development are most encouraging.

Of the four factories about to be completed in ()ntario, that owned by the Wallaceburg Sugar Reet Co., Ltd., Wallaceburg, Ont., will likely be first in operation. On a recent visit to that town, a "Farmer's Advocate" representative was shown over the immense new building, and the splendid beet fields, by D. A. Gold n. manage. of the company, and D. Lefavour, his efficient asistant. From what was seen, the people of that district have just reason to feel proud of the magnificent structure of steel and brick on the banks of the Sydenham River. The Kilby Manufacturing Company, of Cleveland, O., have had the contract of this gigantic concern, which, when completed, will cost \$600,000. It has teen the aim of both contractors and promoters to erect a plant capable of extracting from the beets the largest amount of sugar at the lea t possible cost Nothing but the most improved machinery has been installed and the quality of the workmanship as pronounced by experts is unequalled. A very commendable feature of this plant, and one which exemplifies the keen foresight of the management, is the arrangement of the plant in such a manner that either cut-loaf, yellow or granulated sugar may be manufactured. The latter, being in greatest domand at present, will alone be produced this year, but changes in future markets can be equally well catered to by this company

THE BUILDING.

The framework of the entire building is of steel the walls are of brick, and 300 heavy pillars of iron support the cement floors, upon which the machinery is laid. The main apartment is 258 ft. in length, 67 ft. wide, and 73 ft. (of four stories, as shown in our engraving) in height. In a direct line with the main building stands the warehouse for refined sugar, a two-story structure, 197 ft. long, 67 ft. wide, and 30 ft. high, having a capacity for storing 15.000 barrels. The beet shed, which is built of cement and structural iron, has a capacity of 10,000 tons, and affords accommodation for unloading from either wagon, train, or boat, a combination possessed by but few factories. It is 400 ft. long, 196 ft. wide, and 21 ft. high. Closely connected with the main building is the boiler house, 164 ft. by 47 ft., and 31 ft. high, containing eight 250-horse-power Scotch marine boilers. A'djoining this is the permanent workshop, with its large lathes, planes,



MANITOBA NOT ALL A TRRELASS PLAIN.

drill projses and pipe and nipple cutting ma hines. Next, and at the south-east corner, stands the lime department, having a length, breadth and depth of 41 and 65 ft., respectively. The kiln itself, which towers from the center of the building, has a capacity of 21,250 cubic feet.

THE PROCESS OF MANUFACTURE.

The various stages in the manufacture involve machinery both intricate and elaborate. They are, nevertheless, interesting, and anyone who visits a factory for the first time cannot but be struck with the ingenuity and completeness of the process. As the beets leave the sheds, they float in cement flumes to a scroll which leads to the beet washer. From thence they are elevated to the upper story of the main building and weighed by an automatic beet scale, which afterwards dumps the beets into a slicer. When sliced, they fall on an endless belt over the diffusion battery, where warm water is used to assist in the separation of sugar and pulp. The cells of this apparatus each nold three tons sliced beets (cossets). Leaving the battery, the juice is measured, after which it passes through the first calorisators, of which there are six. At this point, an excess of lime is added and the juice treated with carbonic acid gas to precipitate impurities. It is then passed through mud presses, where it is filtered and the juice collected in a tank, to be pumped to the sec-ond carbonators, where lime and carbonic acld are

again introduced for the precipitation of foreign matter which may remain. The filtration which follows is performed by three large mechanical filters, operated by gravity. This juice having been received in a tank, is thence pumped up to the first saturation station, where sulphuric acid gas is introduced for further purification and for bleaching. Again the juice is filtered, passing on to the evaporator supply tank and thence to the evaporators, of which there are four, each having a capacity of 3,000 square feet heating surface At this time the juice becomes a syrup and is pumped up to the syrup saturation station, to be treated with sulphurous acid gas, after which it passes over five small filters and is forced up to the vacuum pan supply tanks. Leaving the vacuum pans, where much of the moisture is removed, it enters the mixers and passes on to the crystalizers, of which there are ten, each having a capacity of 45 tons. From these it emerges as granulated sugar, ready to be bagged or barreled for the trade, and at once finds a place in the warehouse

DISPOSITION OF THE PULP.

When the juice is extracted from the sliced beets, the pulp is conveyed by means of carriers to a large pit or silo, about ten rods square and 6 ft. deep, situated just south of the factory. From this basin, a complete system of drainage lias been arranged, so that the objectionable odors so often found in the vicinity of pulp pits will be reduced to a minimun.

This year, the patrons of Wallaceburg factory will be allowed to remove, free of cost, an amount of this by-product equal to the quantity of beets At the Michigan factories supplied the factory. a similar policy has been pursued until the farmers were convinced of its feeding value, after which from 35 cents to \$1 per ton has been willingly paid by feeders. Some experiments have shown the dry matter in beet pulp to be equal, pound for pound, with the dry matter in corn silage, and therefore very valuable as a milk-producing agent. Cows, it is said, will readily consume from 50 to 100 lbs. daily.

625



HEAVY OAT CROP FOLLOWING SUGAR BRETS.

THE BEET FIELDS.

Before the company could decide to invest the large amount of capital required to build and operate a factory, it was necessary that the farmers give definite assurance that a supply of lests would be forthcoming. This the husbandmen of Kent County readily did to the extent of 4,800 acres, and a visit to the country around Vallaceburg would convince any traveller that the seed was not sown to be neglected, but has undoubtedly received at the hands of the growers that care and cultivation which the crop derended, as far as the season would permit. (For the Dresden factory a similar acreage is under cultivation.) That the farmers might be directed in the most scientific and up-to-date methods of procedure, the company have had a band of six evrent agriculturists engaged since the beginning of the season, giving instruction in preparing the soil, sowing the seed, cultivating, and raising the heets when mature. Some whose faith in the succes of this industry was firm, devoted a considerable portion of their farm to the sweet roots. Capt. Steinhoff has 160 acres; D. A. Gordon 60, J. S. Fraser and John Cooper 50 each, and John Coffee 90 acres in one field. The 626



BARON'S PRIDE (9122). Famous Clydesdale stallion. Typical draft horse.

balance of the large acreage being grown for this factory may be found within a radius of six miles. Everywhere, on well-drained soil, the beets presented a magnificent sight, and should the present month be a favorable one for storingup sugar, the highest anticipations of the most optimistic may be realized.

PROBABLE YIELD.

In many cases the yield will doubtless be 15 tons per acre, and over a large area 12 tons will surely be harvested, indicating, if all goes well, a probable output of say 6,000 tons of sugar this season from the Wallaceburg factory. For these the farmers will this year be paid four dollars per ton. Next season the price will range according to the amount of sugar in the beet. In the Michigan factories 331-3 cents for each one per cent. sugar in the beets is commonly paid. So great is the company's faith in the future of their enterprise and in their ability to satisfy the growers, that they have required the latter to sign contracts to grow beets for but one year. The profits obtained, it is considered, will be sufficient inducement to cause them to continue.

NOT AN EXHAUSTIVE CROP.

Some prominent agriculturists have declared that sugar beets were an exhaustive crop on the soil, and that land on which they were grown was unfitted to produce a heavy yield of any cereal grain thereafter. Such, however, has not been found the case in actual practice. Wallaceburg some farmers pointed to the best crop on their premises with the statement, had sugar beets on that field last year." A field of oats grown on the farm of D. A. Gordon, and herewith portrayed, were superior in every respect to any seen by the writer on the trip from London to this place. It is well known that the beet-top contains a comparatively higher per cent. of fartilizing constituents than the root, and when the former is fed on the field, or in the stable and the manure returned to the soil, no loss can accrue from that source. Moreover, when the patron of any factory appreciates as he uld the value of beet pulp, and returns to his farm to be fed the amount allotted to him at the factory, no loss in fertilizer is suffered through beet-growing. This is proven by the well-known fact that sugar in itself contains neither nitrogen, potash, lime nor phosphorus, but is composed entirely of the elements carbon, oxygen and hydrogen, obtained either directly or indirectly from the air. It is said that in France, where nothing but the sugar has been removed from the farms during many years of sugar-beet growing, no diminution in plant-food has re-sulted. The growing of beets affords a splendid opportunity of combating noxious weeds, which have, unfortunately, become very prevalent in certain districts of Ontario, and the frequent cultivation necessary to conserve moisture and aerate the sunface layers is sure to improve the mechanical condition of the soil.

THE FARMER'S ADVOCATE

along the river, and sidings are already laid at places along the railroad, where farmers can casily unload their beets from the wagons. Many flat boats capable of carrying several tons are also either in course of construction or completed, and altogether the preparations are proceeding in a most enterprising and businesslike manner.

During the process of manufacture, which will likely last about 130 days, upwards of 300 men will be employed, and that too at a time when

other industries are generally slack. SHIPPING FACILITIES AND FUTURE PROS-PECTS.

The splendid shipping facilities at the command of this company comprise in themselves a feature worthy of special mention. Passing through the town of Wallaceburg, and connecting it with Chatham, St. Thomas, London, Port Stanley, Detroit and Sarnia, is the Lake Erie & Detroit River Railway. At this place, also, the north and east branches of the Sydenham river join, making a stream deep and broad emough to uccommodate a steamer of considerable size as it flows on its way to Lake St. Clair, 16 miles distant. Thus means are afforded not only for placing the sugar in the hands of buyers, but also for the importation of coal, lime or any other commodity required in the process of manufacture.

Just what this new industry will mean to Canada it is difficult to estimate. By its introduction into Michigan, farming has been placed on a more paying basis than ever before, and the price of agricultural lands in the vicinity of factories has nearly doubled in value. Already the stimulus is being felt in the districts surrounding Wallaceburg, Dresden, Berlin and Wiarton, the four towns in which factories will be in operation this season. The oulook is one of great moment to the husbandmen of this country. Canada con sumes annually about 300,000,000 pounds, the product of other countries. If our soil and climate be as well adapted as present appearances indicate, we have surely room for several more factories. At least twenty of ordinary size would



AMERICAN TROTTING-BRED STALLION "CON-VERTED" TO HEAVY HARNESS.

be required to supply the home demand, and iffarmers in districts where good beets can be grown will but consider their own interests and co-operate with those who are ready to invest the necessary capital in a plant, there is no reason why Canada may not soon become an exporter rather than an importer of sugar.

HORSES

Stick to Type in Horse Breeding.

A recent despatch from London, Eng., states that the British War Office now has on foot a scheme for encouraging the breeding in Canada of horses for army purposes. A large number of stallions fitted to become sires of the typical war horse are to be shipped across the water, it is said, and the entire scheme is to be under the direction of the Canadian Minister of Agriculture. This report, coming as it does only a few weeks after Mr. Broderick's statement in the British House of Commons, that 500 Canadian horses annually would be bought in time of peace, will not cause much excitement on the part of horse breeders in this country. Since, without special preparation, we were able to supply over ten thousand remounts for the recent campaign, why should inducement be offered to breed five hundred per year when the war clouds of the world have cleared away ?

In reviewing the horse market for a number of years, during which time prices have varied considerably, the situation presents one feature more striking than all others, and that is, that good specimens of the different classes have always brought profitable pricos. Men who have been breeding only straight Clydesdale or Shire on their farms for years are those who have reaped a rich reward. The same may be said of other types such as fancy drivers, and the horses that are likely to bring profit to their breeders in future are not those which may have been bred specially for army purposes, but horses typical in conformation of some recognized class, the result of intelligent selection and mating. Districts are known in Ontario where thoughtful farmers have so co-operated for years, in their patronage of sires of a definite class, that today the majority of the horses found therein are fair representatives of the ideals according to which they were bred. It therefore happens, when a buyer has an order for a number of a class, he goes to that section known to be breeding them, and where they can be had at least expense. Nevertheless, when the horses, and especially the brood mare, of the country are considered, it is surprising how few possess characters fitted to identify them with any particular class. The happy-go-lucky style of patronizing a stallion, merely because he was a "fine horse," cause his owner was popular, has brought its reward in the predominance of no-clas or scrub stuff. Some men who have been breed ng to rather heavy stock, get the idea that something with greather speed would make a better general purpose horse, and so the common farm mare, in whose veins runs, perhaps, Clyde or Shire blood, is bred to a trotter, and only with disappointing results. At many agricultural shows, too, the horses are improperly classified, and too much importance is placed upon the so-called "general purpose horse," an animal which only circum-When the call was made at stances can classify. Toronto Industrial, last year, for general purpose teams, there came into the ring pairs quite heavy enough to pass as Clydes, and others fitted only in weight for the race-track,

It may be mentioned, also, that the pedigree of the sire should not be lost sight of. The stronger the blood of his ancestry, and the longer it can be traced in a direct line, the stronger the possibilities of the progeny partaking of his characteristics, and the greater the assurance given to the breeder that they will be like him. A great mistake made by many is in breeding something for use only on the farm, instead of an animal for which a market might be had if required, and one which would be quite as suitable for agricultural purposes. What is wanted on the part of breeders in general is a deeper interest in the classification of horses, coupled with more intelligent selection of sires, and that adherence to type the product of which buyers are ready to pay for.

FOUNDED 1866

THE LABOR PROBLEM.

In some parts of Ontario, where factories have been proposed or are being erected, farmers have feared that the scarcity of laborers would render the rearing of sugar beets in any quantity an impossibility. At Wallaceburg about 100 men were imported from Belgium to assist in carrying on the work. These have proved a valuable acquisition, as many of them were familiar with the industry in their native land. Although objections were at first offered to the newcomers, no one appears to have suffered. All who cared to work have found employment, and that at remunerative wages. Growers have generally been able to keep pace with the work so far, and until raising and hauling to the factory begins, no rush will be necessary. Every precaution is already being taken to make the transportation of the beets from the fields to the sheds as light as possible. Wharves are being built at convenient points

An Ontario County Telephone System.

A despatch from Beaverton. Ont., gives the following information regarding the successful inauguration of an independent telephone system there: "Beaverton has an independent telephone system, established in opposition to the Bell Telephone Company, and giving good satisfaction to those using its lines. The rate per instrument is only \$18 to farmers and \$15 to those residing in the village. The new 'phones have been in operation only a little over a month. Last spring, the Eden Creamery Company, whose creamery is situated about five miles from Beaverton, applied to the Bell Company, and were asked \$60 a year for a connection.

"A firm of Beaverton merchants and the farme's interested in the creamery joined hands and formed a private company, of which Mr. George A. Proctor, a farmer of Thorah Township, was a leading member. The low rates at which they offered to instal 'phones fornd a ready demand in the community, and there are now between 20 and 25 instruments in operation.

"The success with which the new company has met will be realized when it is known that within a couple of months they have installed as many 'phones as the Bell Company has in operation altogether.

"The lines are not all completed yet, but the instruments already installed have proved the value of telephonic connection to the farmers, and further extensions will be made immediately. About 50 'phones will be put in this fall, and an equal number next spring."



Typical suddla horse.





ALIX, 2.0}. Typical roadster.

Classification of Horses for Show Purposes.

To any person who is in the habit of attending the horse ring at fall exhibitions, either in the capacity of judge or spectator, it is evident that many mistakes are made in classifying the exhibits. Many high-class animals are exhibited in classes to which they do not belong, hence cannot win, and while an animal so exhibited may be worth more money in the market than those that win the prizes, he is out of his class, and it would be doing an injustice to the other exhibitors to give him a place, notwithstanding his value. Occurrences of this kind are very unfortunate, and not infrequently subject the judge to unfair and severe criticisms. The owner of the horse knowing that he has the most valuable animal in the ring, and either through want of accurate knowledge of the characteristics demanded in horses of certain classes or careless ness in making his entry, has entered him in the wrong class, it is often hard to convince him that he has made a mistake. He either can not or will not see it, and considers that his horse should be placed first in either class, and in many cases will enlarge, often in language more expressive than polite, upon the ignorance of the judge. Conditions of this kind would not occur if exhibitors would carefully read the prize list and consider the characteristics of their horses and then be careful to enter each animal in his proper class. It must be admitted that there are many very useful, and in some cases valuable, animals that cannot be said to belong to any recognized class-that is, they have not the special characteristics of any class sufficiently well marked to justify classification. Such animals should not be We have heard men grumble in such cases that there was no class for them. This is quite correct. An exhibition society cannot make classes for all animals, and it would be unwise to do so, for while an unclassed animal may in some cases be valuable, it would not be wise to encourage his production. The classes which include most of the horses owned and exhibited by farmers are : Heavy draft, agricultural, generalpurpose, carriage, roadster, and saddle. The other classes, as high-steppers, tandems, four-inhands, hunters, etc., require animals that in the are essentially of their respective classes, and then are subjected to special training in order to develop their characteristics. Hence these classes, we may say, are especially for the dealer or the gentleman who has plenty of time to prepare his horses for exhibition or pleasure. will, therefore, confine our remarks to the first-mentioned classes.

THE FARMER'S ADVOCATE.

who carries both head and tail well and has fair action.

There are more mistakes made in classification in the light classes than in the heavy. Of course when an animal is of pure breed there is no difficulty, but carriage and roadsters are usually of mixed breeding and classification depends more upon action than conformation.

THE CARRIAGE HORSE

should be a stylish, attractive fellow of fair size, say from 15 to 161 hands, and symmetrical (Many think that size distinguishes between the carriage and roadster, but this is a mistake.) In general conformation he should have more substance and general muscular development than the roadster. Still, we often see a horse whose appearance while standing will admit of him being placed in either class, and we must see him move in order to classify him. He must have style and attractive appearance whether standing or in motion, must hold his head and tail well, and should drive without either check-rein or martingale. His action should be straight and graceful, neither rolling nor paddling with the fore feet, nor going wide behind, and he must have at least fairly high action : the higher the better, and this action must be maintained whether jogging or going fast. He must not pace

The extreme action looked for in the carriage horse, and demanded in the "high-stepper," is congenital in the Hackney, and in some cases can be developed in the Standard-bred or roadster.

ROADSTERS,

like carriage horses, are of different sizes, and usually of mixed breeding. A roadster should be of fair size and substance. In general appearance not necessarily as stylish and attractive as the carriage horse; still, there should be an absence of plainness and coarseness. He should be able to go fast, not necessarily fast enough to race, but should have sufficient speed and substance to draw two men in a buggy over an ordinary road at say 10 miles an hour, and have



MOPSA AND RUBICON. Pair of carriage horses, exhibited by R. Beith, M. P., Bowmanville, Ont.

sufficient endurance to keep the clip up for a few hours if asked to. He may either trot or pace, and may go either low or high. Must not paddle or roll in front, but may go reasonably wide behind.

SADDLE HORSES

are, with rare exceptions, the produce of the

STOCK.

Selecting Brood Sows.

From the general trend of the hog market, and the prices which have been paid for the last few years, it must be clear to every intelligent farmer that more brood sows could have been profitably kept in this country. Recent advices, too, coming from Great Britain, as well as reports from packers in our own land, indicate that very profitable returns may be expected by Canadian bacon producers for some time to come. It therefore behooves farmers to awaken to the situation and at once prepare to increase their capacity to meet the demand.

The first step will be the selection of good brood sows. This is an important matter at any time, and especially so when large profits may be obtained from the industry. There is no better season at which to make a choice and no more opportune time than the present one. Springbred litters are the best from which to select, because usually the young pigs will have had more exercise than if dropped in the fall, and in consequence will be possessed of stronger bone, heavier muscle, and the foundation of a better constitution. As a breeder of bacon hogs, it is not necessary that the sow be pure-bred, but she should, at least, have two or three direct crosses of some recognized bacon breed, and if a pure-bred sow of the right type can be secured at a moderate price, she is preferable, because she will be more likely to breed true to type. Since it is essential that a brood sow be a good mother, a heavy milker and a breeder of fair-sized litters, it will be necessary that the young sow be chosen from a dam known to possess these characteristics, and if the same can be said of the female ancestry for two or three generations, so much the better. It is also very important that she be descended from an early maturing strain and one noted for constitutional vigor. Individually, she should give evidence of

possessing these qualities in high degree.

The age at which a sow is selected effects, to some extent, an estimate of her possibilities; the nearer maturity, the better idea may be had as to her probable form and quality in general. No sow, however, intended for breeding, should be allowed in the finishing pens where rapid fattening is taking place. It is, hence, necessary that she be removed from the rest of the litter before forcing begins. Even at three months, a fairly accurate idea may be had of her possi-bilities as a breeder. Strong constitution will be indicated by breadth, depth and fullness of chest. Early maturity may be estimated by size according to age. Maternal instincts

will be seen in a kindly disposition, and ability to produce large litters will, to some extent, be assured by good length and depth of body and by the presence of at least twelve mature teats. In addition to these, a brood sow intended for raising bacon hogs should show strong bone of fine quality, stand well up on her feet, have smooth shoulders, a strong back slightly arched, be long from shoulders backward, with hams full and well-developed. It may be difficult to find these in a single individual, but the closer to them an animal can be found, the greater the assurance of success. While the history of the ancestry (pedigree) is of great significance in the selection of breeding stock of any class, individual merit must not be overlooked. Young sows are frequently taken into the breeding pens without sufficient consideration or care in choosing. The difference between the profits from a good and an average brood sow in a single year may easily amount to as much as \$50, and when

THE HEAVY-DRAFT HORSE

must be of a certain weight. Some prize lists state what the minimum weight shall be. We will say 1,600 lbs. and over. He should possess the general characteristics of the special class of draft horses to which he belongs, either Clydesdale, Shire, Percheron, Suffolk Punch, German or French Draft, but he must have the required sweight in order to make him eligible to compete. The Clydesdale and Shire are certainly the most favored draft breed in Ontario and some of the other Provinces.

THE AGRICULTURAL HORSE

is of the same general type, but of less weight, say between 1,400 and 1,600 lbs.

THE GENERAL-PURPOSE HORSE

is hard to describe. Some claim that there should be no such class, but we think there is a generalpurpose horse. He is said to be an animal that performs fairly well to a wagon, carriage, buggy, plow or under saddle, not being an animal that is especially adapted for any one purpose. Such an animal we consider should be of the blocky type, say 151 to 16 hands, weighing between 1,200 and 1,400 lbs., with clean, flat bone, good feet, withers well marked, good obliquity of both shoulder and pastern : an active, good-mannered fellow,

Thoroughbred sire out of mare s of mixed bree ing. The nearer they approach the Thoroughbred general type the better, so long as they have sufficient size and substance. A saddle horse must have a rangy neck, well marked, and rather sharp withers, rather strong back and strong loins, oblique shoulders and pasterns. In action he has not got the height and flash of the carriage horse nor the speed of the roadster. He goes rather close to the ground, with an elastic motion, whether at the walk, trot or canter.

Another class not mentioned is the

COMBINATION HORSE.

Good horses of this class are hard to find. The characteristics are a mixture of those of the high-stepper and saddle horse. The aspirant for honors in this class should be of medium size. He must be of an attractive appearance ; have more action than the saddle horse, yet not so extreme action as the high-stepper. In rare cases a horse can be taught to act higher in harness than in saddle, and this makes the ideal combination horse. He must have good manners in both harness and saddle.

"WHIP."

The weather during August was, in nearly all sections of the Dominion, favorable for harvesting the grain crop, which, with few exceptions, is a bumper one in all the Provinces of the Dominion, while pastures have kept fresh and the cows have continued to do good work. The farmers in most districts have finished the harvest, and are in the best of spirits, owing to the satisfactory regults. Truly, this Canada is a favored land.



COMBINATION TYPE. Harness, saddle or brood mare' Ringlet. OWNED BY C. V. HAWORTH, ENGLAND,

A YTETA O

It is remembered that a choice breeder may be kept until four or five years old, the matter of selection becomes one of great moment.

Transportation Needs of Prince Edward Island.

When it is known that this Island is the nearest-fertile, easily cultivated-territory of considerable extent to Cape Breton, which is rapidly becoming one of the great centers of mining and manufacturing enterprise, the inference is unavoidable that this Province must in the future, as in the past, continue to be the chief source of supply for its butchers, vegetable dealers and fruit merchants. The largest capatilists of Europe and America are now looking to the town of Sydney as an inviting field for investing their surplus cash, it being the center of the greatest and most varied stores of mineral wealth now known to exist on the earth. These men are now pledged to build a bridge across the Strait of Canso, which is estimated to cost five million dollars, which alone is a strong proof of their faith in the future of Cape Breton Geologists have long ago noticed the close relationship which exists between the new red sandstone lock formation and prosperous farming communities, whose lands produce plants, grains and fruits in great profusion, and of higher excellence than soils overlying any other rock formation. The deep red color of our soil tells at once of its origon. Perfect natural underdrainage being one of its favorable conditions, the laborious and costly underdraining of other countries is not needed. When, in addition, the situation is con-sidered, surrounded, as it is, by the sun-warmed, comparatively shallow waters of the great Gulf of St. Lawrence, the causes are readily seen of our ability to glut the Maritime markets with farm products and force Boston and New York dealers to figure out the contents of our potato cellars.

Among the earliest immigrants to this Province were a number of Loyalist families, who left comfort and in some cases wealth in their several New England and New York homes, rather than submit to the rule of enemies of Great Britain. Among these were the Hassards, Hydes, Gardiners, Bovyers, Schurmans, Bakers, and others whose names are not in memory. These men carried with them the habits of their old surroundings, and planted apple and other fruit trees in their first clearings of the forest. These throve and were very productive. But no considerable home market existing, the energies of immediate descendants were directed to grain and vegetable growing, which were shipped abroad. In this way the capacity of our Prov-

F. G. BOVYER & SON, CHARLOTTETOWN, P. E. I. ince to produce fruit of good quality, of many sorts and in great abundance, was lost sight of: this to so great a degree that about eight years ago the Premier of the Province declared in the

Legislature that it was "nonsense to talk about growing apples in Prince Edward Island." Yet since that was said our apples have sold in quantity for the highest market price in London, and exhibits of our fruit have been awarded highest honors at Paris and Glasgow Exhibitions.

A few years ago our market gardeners complained that cultivated strawberries could not be profitably grown here, yet of late the most highly-esteemed sorts, such as the Jessie, Haverland, and a score of others, are grown and shipped to all available markets, even as far as Boston. Size and high quality characterize these shipments. One grower, last year, sold over forty thousand quart boxes, and has reached this season the fifty-thousand notch.

Soon after Professor Jas. W. Robertson became Dairy Commissioner, he visited this Prov-

of dairying and the cheese factory system. For a time his efforts failed to elicit any response. In the year 1891 neither butter nor cheese was shipped from this Island, but some butter and much cheese was brought here from abroad. The following spring the "Three Rivers Dairy-men's Association" took hold of Professor Robertson's offer and built the New Perth cheese factory, the Professor agreeing to find a purchaser for the product and assume various re-ponsibilities that now fall on factory directors. The result is that last season-nine years from the first start-seventy-five thousand boxes, averaging seventy pounds, were shipped, mostly to Europe. Such is a brief outline of Professor Robertson's success in establishing the dairy business here. He had faith in our resources and our ability to back him up. The result justifies his determined effort. The remark may be made that Professor Robertson's chief service was to find a market and a purchaser for the product.

Now it comes in my way to tell of very different results from visits of other members of the staff of the Dominion Department of Agriculture. Soon after the Minister assumed office, he addressed several public meetings, his chief effort being to boom Channel Island cattle. When the fearfully injurious state of live-stock transportation was brought to his notice, he dismissed the subject with "short shrift," being apparently ignorant or careless of the fact that in no other part of Canada has the Government such absolute and entire control in transportation matters as in that affecting the entire system of ferry over the strait, the P.E.I. Railway and the Intercolonial Railway to the great ports of Halifax. The most distant of St. John, and Sydney. these is little over one hundred and fifty miles from us, yet it costs more to get a carload of live stock to any of them than to get the same lot twelve hundred miles from Toronto or Guelph.

At a similar period in Live Stock Commissioner Hodson's official life he also came among us. Public announcements of his lectures stated that live-stock transportation would form part of his subject; but, to the disappointment of his hearers, it was not alluded to, he seeming more anxious to impress us with the danger from discased cattle, for he carried all over the Province a tuberculine-test orator, whom credulous people call a vet.

The Live Stock Commissioner then had and now has it in his power to render as great a service to the live-stock interest of this Province as the Dairy Commissioner did in his department. Let him make us sure of prices equal to those paid at Toronto for ripe fat steers fit for the British market, and in two years from date we can fur-

17-80

ince, lecturing in many places on the advantages



628

FOUNDED 1866

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OTTAWA CITY POST, OFFICE, THE PARLIAMENT BUILDINGS AND THE CANAL BRIDGE.



CALAMITY JANE 2ND. Three-year-old Holstein-Friesian cow OWNED BY GED. RICE, CURRIE'S CROSSING. ONT. (SEE GOSSIP, PAGE 663.)

are here now in limited number, and two cents a pound less than Toronto prices is the rule.

As evidence of the urgent need of relief for the Island farmer from unjust discrimination, 1 submit the actual condition of freight rates for live stock now prevailing.

Taking Kensington, a station on the P. E. Island Railroad, and center of an important cattle district, as the starting place for a car lot of eighteen head of cattle, supposed weight 20,000 lbs., and shipped to the butcher at Halifax, the cost is made on three separate short hauls, no reduced through rate being allowed :

Kensington (P. E. I.) to Charlottetown Charlottetown to Pictou, \$1.50 each Pictou to Halifax	39 mil 41 mil 116 mil	es. \$13.00 es. 27.00 es. 28.00	
FICTOR OF FREEMAN	196	\$68.00	

Halifax is the most important Canadian seaport and city on the Atlantic coast. It is a garrison town with great fortifications, is the headquarters for the North Atlantic British Fleet, and requires an enormous quantity of butchers With such rates, and the absence of every needed facility for transferring stock from train to boat and from boat to Intercolonial cars, both for Halifax at Pictou and at Pointe du Chene for St. John, N. B., another important city, it is not remarkable that stock-feeding for the butcher is at a low ebb. That we have the material to furnish fat stock equal to the best has been by shipments of entire steamship cargoes of fat steers to Liverpool, made by Blake Bros., Charlottetown, and others by Carvell Bros., each of which were reported as highly satisfactory to the exporter, and also to the feeder. Too much of our oats are sent abroad ; its measured bushel frequently weighs thirtyeight and sometimes forty poun's; and both two and six rowed barley produce abundantly. With such resources provided for success, and obstacles in the way of that success removable by Government, is it unreasonable for us to ask the Department of Agriculture to remember that a very considerable proportion of our farmers are not engaged in the dairy busine s. and never will. and that such deserve consideration as well as the man with the milk cow.

nish them in steamship cargo lots. Such steers having a few lambs to sell in September, when nearly all the lambs of the country might be put on the market, they have an article for the market when prices are good. A lamb is generally worth a half more in June than in August or September. To have it at good killing weight at

Sheep Keeping----Autumn Problems.

BY J. M'CAIG. MUTTON-RAISING There are different ends served in keeping sheep by diffe.ent shepherds,

and corresponding systems of management. Some do not spend much time in for sheep caring stock, do not give any valuable foods and always buy The cheap rame. returns from their business consist generally of a little wool for trading at a low price for blankets at a local mill, a few carcasses of lambs or old ewes for home use and an odd one or two to a local butcher at the time everybody else has surplus stuff, and hence at prices that After this are low. general class, we have special classes of sheepmen, and these are of a higher type. Instead of

of rough food into menure in the pens. Little is done in Ontario in handling yearling wethers. The tendency of demand for meats of all kinds is so favorable to early, tender meats that yearling stuff is generally not worth any more and sometimes not as much as good lambs in summer time, independent of its greater weight. The mutton business in (mtario, then, boils down to spring, fall or winter lamb production. It seems, on the whole, that spring and winter lamb-selling are more profitable than selling in the fall, though each branch depends on the relation of supply and demand for its profit, and it is not to be assumed that any one of these will be always good. ABOUT WOOL.

Wool in Canada has become an incidental ather than an essential part of the sheep business. Every sheep grows wool, and the improvement of mutton and wool have gone on concurrently even in the English sheep. The improvement of the sheep for mutton has been chiefly in the improvement of blocking qualities-in the putting on of heavy weights in good places; likewise in the improvement of quality by reason of rapid maturity. The improvement in wool can scarcely be called an improvement in quality, for it has become coarser. It has improved in length and strength of staple and in the total weight of fleece. On account of the very low price of Canadian wool, it is better policy to keep the eye chiefly on the fleshing properties of sheep than on the fleece. In a ram, however, a weak fleece may be regarded to some degree as a sign of want of vigor. A ram should show strength in all his externals and form. He is not subject to the burdens in procreation that make ewes light shearers by heavy maternal duties. A ram has every chance to be strong, and it is evidence of an absence of masculinity to be weak in any particular.

THE CULTURE OF BREEDING SHEEP.

A knowledge of good blocking form is valuable and necessary to every sheep-breeder for success, The breeder of pure-bred sheep requires, besides, a knowledge of types and families. Each man conceives an ideal or makes a choice. He has a

fancy, as it is called, for a particular breed. It amounts to more than a fancy, howcver, as his exercise of choice involves comparison and discrimination among different breeds or Knowledge families. of breeds is made perfect only by comparison, and though a man may be called a Shrorshire man or a Cotswold man, it is not to be assumed that he is a narrow man, for the definiteness of the conception of his type depends on his being a

this time, more care is necessary in the spring and a little more feed is required for both ewe and lamb, but the profits are higher on the spe cial article. Higher prices still can be commanded at Easter for January and February lambs. The cost of these must necessarily be high, as they are fed entirely on stored foods. This branch of

ABERDEEN - ANGUS PRIZEWINNERS

At Winnipeg Industrial Exhibition, 1902.

OWNED BY F. J. COLLYER, WELWYN, ASSA. student of breeds. The first qualification of a breeder, then, of pure-bred sheep is the capacity to incorporate and bread to an ideal. It is this property in the owner that gives to his flock of sheep what may be called character or individuality. The first thing noticeable in flocks of pure-breds is that they generally conform to a

FRED G. BOVYER.

King's County, P. E. I.

Good Agents Wanted.

Farmers or farmers' sons who will undertake to represent the "Farmer's Advocate" at the fairs this fall, and secure new subscriptions, should write us at once for terms, sample copies and outfit. State what fair or fairs, and the dates. It is a pleasure to canvass for a paper that everybody likes. Try it.

I am well pleased with your premium knife : also found the material first-class. My daughter was well pleased with the book, "Flowers, and How to Grow Them." The new subscribers are also well pleased with the "Advocate." A. HARRISON.

Thomasburg, Ont.

lamb-raising best be done with Dorset as ewes, they will take the ram any time. It is a branch of sheepkeeping that is capab'e of profitable extension around almost any Ontario town. It is a common practice with some farmers to buy up lambs at weaning time when they are plentiful and cheap, run them on rape and grass until fall and then ieed for a short time to finish them. It is possible with such stock to wait for a favorable market between Pe cember and April, for the stock is always increasing in weight and improving in condition. Their grazing in the fall is a good way of increasing the fertility of the soil, and they convert a great deal



FLORA VI. First-prize two-year-old heifer and champion Shorthorn female at the Royal Show, at Carlisle, 1902. OWNED BY MR. GEO. HARRISON, GAINFORD HALL, DARLINGTON, ENGLAND.

ONTABIO PARLIAMENT BUILDINGS, TORONTO.

well-defined type. His flock requires special treatment. The recognition of distinct breeds implies that certain pains have been taken to embody a fixed combination of properties and markings in a single animal. The animal is thus a special product that stands for considerable care and art. This implies similar care and art to preserve and perpetuate these properties. Pure-bred stock is frequently a disappointment to beginners because, from want of experience, they do not rise to the need for special treatment. It can scarcely be justly said that highly-improved stock is weak stock, but, rather, that compared with the unimproved animal it has farther to fall if subjected to hard treatment, and so its deterioration is very noticeable. It is the product of a special set of conditions that make it an entirely different animal from its ancestor.

630

Faithful adherence to a well-understood type, and generous but rational feeding and care, are synonymous with high rewards in sheepkeeping. This class of sheep husbandry entitles its patrons to be regarded as public benefactors. Their influence cannot be measured in dollars and cents, but if there are any dollars and cents going in the business they get them.

Iowa Feeding Experiment: Final Report.

The final report of the Iowa College feeding experiment, as outlined in the "Farmer's Advocate," July 15th, has just been issued by Profs. Kennedy and Marshall. The object of this test, as previously explained, was to compare the relative flesh and fat producing power of the various stock foods upon the market when fed with a main ration of corn meal. Seven hundred cattle were supplied by A. E. Cook, a wealthy feeder, of Odebolt, and from that number 220 were selected to be divided into eleven uniform lots of twenty each. The animals were of just fair quality, hardly up to the average of those fed in the State, and at the time of selection were on about half a grain ration and had access to the stalk tields. Each lot contained one grade Hereford, four grade Angus, and fifteen grade Shorthorns. They were assigned to the various yards, and put on a preliminary feed for a period of three weeks before the regular feed test commenced. For grain, at the beginning, snapped corn (corn in cob) was fed, followed by shelled corn, then cornand-cob meal, while corn meal was used during the last few weeks. For roughage wheat straw was used throughout the entire period, which lasted ninety-four days. The amount of fodder supplied was gradually increased from the beginning, and not until five weeks had elapsed were the cattle receiving full feed. In every lot, the quantity of corn meal consumed during the latter stages of feeding amounted to twenty-four pounds per day, an amount which Canadian feeders would consider extravagant. The three companies supplying condimental foods were allowed to say what quantity of their preparation should be supplied. This was found to be from 1-10 to 1-7 pound

daily per head during the main feeding period. A special effort was made by those in charge to have conditions, as to the shelter and feeding of the different lots, uniform, and the arrangement in general as much like that found on the average farm in Iowa as possible.

At the beginning of the experiment, twenty good barrow pigs, averaging 142 pounds each.

were placed in each feed lot to utilize the undigested corn which had passed through the cattle. They received no feed except what they got out of the droppings of the steers. The hogs did not make very good gains. In fact, the gains were so small that they were obliged to take out one half of them (ten) at the end of eight weeks. The hogs were not in fit condition for market at the conclusion of the experiment, thus were held over to be marketed later. The gains made by cach lot of hogs is credited to their respective lots of cattle at a valuation of seven cents per pound.

The final comparison may be seen from the accompanying table, showing weight, value, expense and profit in each case.

It will be noticed that no allowance has been made for the labor involved in the feeding, the interest on the money invested, nor the manure made by the cattle during the test. It must also be remembered that this was but one experiment of its kind, and, although conducted on a iarge scale, conclusions must be carefully drawn. The Iowa Station intend to continue this work, but in the meantime inferences can be drawn which may, in a measure, guide the feeder in the purchase or choice of foods for fattening steers.

Work at the Fairs.

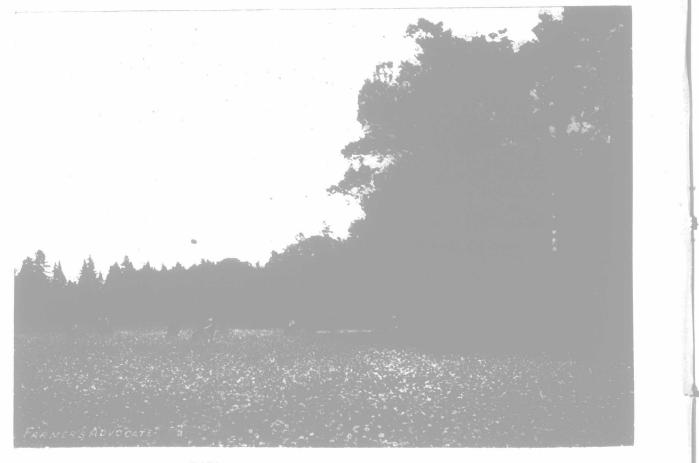
Energetic farmers and farmers' sons can combine pleasure with profit by taking new subscriptions to the "Farmer's Advocate" at the fall fairs. We want a good representative at every fair. Write for terms, outfit and sample copies. Mention the dates and the fairs at which you want to work. You will represent the best agricultural paper published.

We have taken the "Advocate" for about twenty-five years, and have always been able to cull something useful and interesting from it. I think it has become a standard work among us. Yours with best wishes for the prosperity of the "Advocate." ISAIAH SHAW.

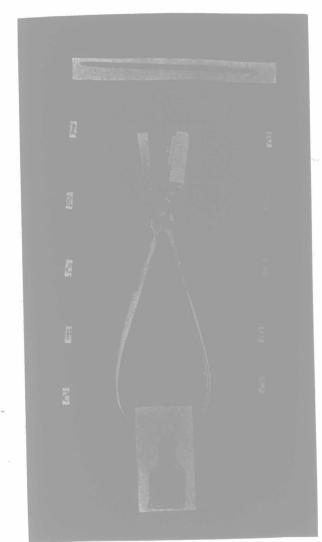
Berwick, N. S.

	NUMBER OF LOT.	Average Weight of Steers at begin- ning.	Average Value of Steers at 5c. per lb.	Average Cost of Feed per Steer.	Average Weight of Steers at Chicago.	Average Selling Price per Cwt.	Average Value of Steers at Chicago.	Average Value of Pork per Steer,	Average Expense per Steer in Con- nection with Mar- keting.	Average Total Pro- ceeds per Steer.	Average Net Prof. it per Steer.
I.	Corn	1042 lbs.	\$52 10	\$24 10	1244 lbs.	\$7 45	\$ 92 68	\$1 86	\$3 85	\$ 94 54	\$14 49
II.	Corn and Oil Meal	1082 lbs.	54 10	25 94	1295 lbs.	7 50	97 12	1 62	3 85	98 74	14 85
IV.	Corn and Buffalo Gluten Meal	1075 lbs.	53 75	25 80	1321 lbs.	7 65	100 06	_1 33	3 85	101 39	17 99
V.	Corn and Buffalo Gluten Feed	1025 lbs.	51 25	25 92	1277 lbs.	7 60	97 05	1 57	3 85	98 62	17 60
	Corn and Germ Oil Meal.	1075 lbs.	53 75	25 37	1265 lbs.	7 40	93 61	1 52	3 85	95-13	12 16
VII.	Corn and Dried Blood	10 62 lbs.	53 10	25 19	1258 lbs.	7 60	95 61	1 89	3 85	97 50	15 36
	Corn and Iowa Food	1015 lbs.	50 75	22 70	1201 lbs.	7 40	88 87	1 52	3 85	90 39	13 09
	Corn and International Food	1016 lbs.	50 80	24 87	1167 lbs.	7 20	84 02	1 83	3 85	85 85	6 33
	Corn and Standard Food	1030 lbs.	51 50	24 38	1198 lbs.	7 00	83-86	1 39	3 85	85 25	5 52
	Corn and Grass	1053 lbs,	52 65	25 07	1246 lbs.	7 55	94 07	2 47	3 85	96 54	14 97

FOUNDED 1866



FARM SCENE, PRINCE EDWARD ISLAND,



TATTOOING PUNCH.

Representatives Required.

We want a good representative — farmer or farmer's son—at every fall fair in Canada this season to secure new subscriptions for the "Farmer's Advocate," the great agricultural paper of the Dominion. Write us for terms, outfit and sample copies. State at what fair or fairs you can represent us, and the dates. It is easy to canvass for a popular paper.

A Beautiful Bible.

I wish to thank you for the beautiful and useful Bible. It is far beyond what I expected it would be Wishing you every success, and thanking you again for your promptness and kindness, I am, Lincoln Co., Ont. CHAS. McGLASHAN.

P. S.-I hope to do some more work this fall for you.

THE FARMER'S ADVOCATE.

The Tattooing Machine.

Often among breeders of pure-bred registered animals, no little difficulty is experienced in so marking the individual as to insure its identity at any future date. In the Northwest on the range, where danger of straying renders some practically unremovable or ineffaceable and easily discernible mark necessary, the branding iron does the work, but even this, which frequently leaves an unsightly and disfiguring scar, fails to serve every purpose, since it indicates the owner rather than particularly identifies the animal.

The tag and button devices commonly used in the ear are usually a source of annoyance, due to the aptitude they display for attaching themselves to everything they may be brushed against.

Various live-stock associations have devised at one time or another various more or less ingenious and less or more satisfactory devices to ensure identification, but nearly all are open to the objection that for one reason or another they fail in a short time to serve the end in view.

The method open to the fewest objections, where it can be used, and one that has been adopted by certain breeders' associations, and which is practiced by many breeders of various classes of live stock in Great Britain, is the tattooing of characters in the ear. The operation is simple and practically painless. The mark is legible and fairly durable. But unless some white fluid for use in tattooing black-skinned animals is available this method would be useless for certain breeds of cattle and swine.

'The instrument used is simple and easily manipulated. It consists, as shown in the cut, of a pair of pincers or forceps so constructed as to permit of changing the marking teeth or stamps. With the forceps come two or more sets of numbers from 1 to 0. These may be arranged into many combinations, and so serve, when tattooed on the ear, to effectually distinguish the individual. Besides figures, letters may be secured, and so initials or whole words tattooed. The tattooing process is simple. The ear of the animal should be thoroughly cleansed. India ink should then be applied with a brush to the hairless or inner side of the ear, so as to cover the surface where it is desired the characters should appear. The jaws of the forceps being so placed on the ear as to bring the piercing device over the ink, a sufficient pressure should be exerted to cause the points to pierce the epidermis and true skin, but not the cartilage of the ear. The ink should then be rubbed into the punctures, although, generally speaking, the mere piercing operation drives enough coloring matter into the skin to leave a good mark.

The wound soon heals, and a mark that cannot be easily removed or tampered with is left. The above cut, from an actual photograph, showing the letters C. E. F., will indicate quite clearly the appearance of the tattoo marks.

'The machines most commonly used are manufactured by Messrs. Krohne & Sesemann, 37 Duke St., Manchester Square, London, W., England.



TATTOO MARKS.

Sheep or Dogs, Which ?

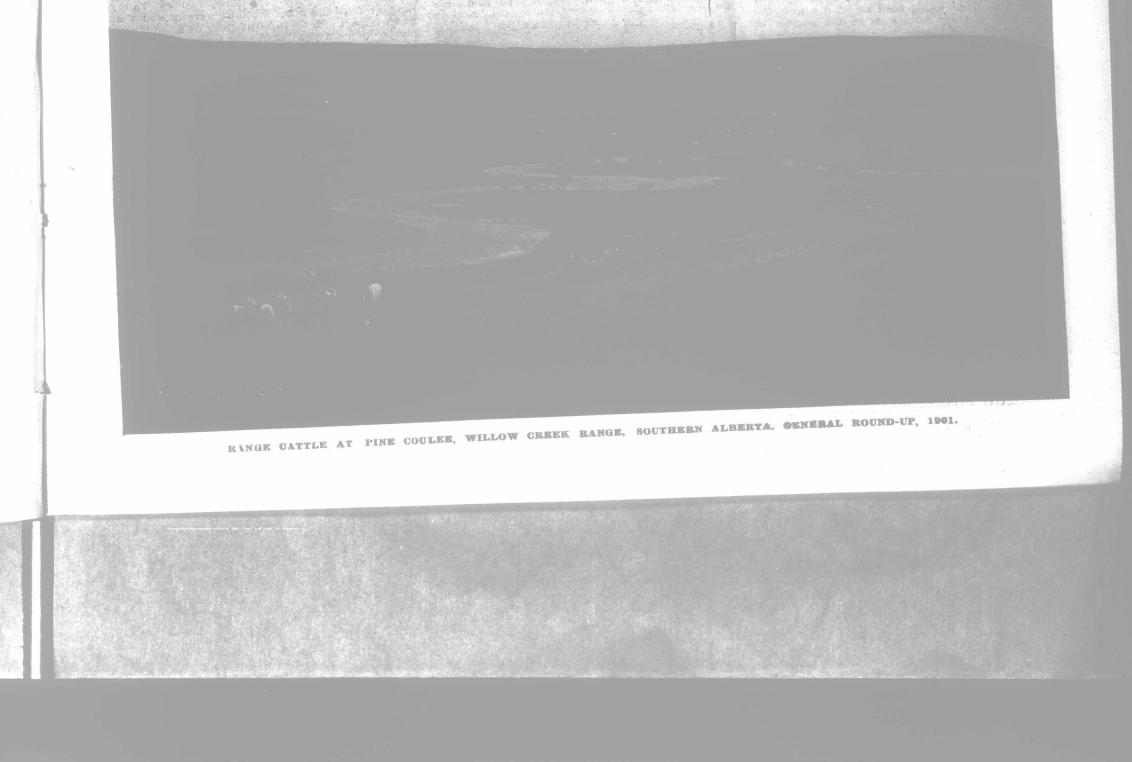
This is a question in the mind of many who know the value of sheep on a farm. That dogs are a serious menace to our sheep-raising industry, no well-informed person will deny. Hundreds of farmers are without a representative of the ovine tribe on their property solely because no restriction has been placed upon the number of howling curs that may be kept in a community. Why law-makers, and even the agricultural classes who should be interested, have not awakened to a better understanding of the situation is still a mystery. For years the "Farmer's Advocate" has been pointing out the need of action in this matter, with but little response.

No country in the world, unless it be Britain herself, is better adapted to sheep-raising than Canada. This has been attested time and again at international shows and elsewhere, and to have the production of an important class of live stock so endangered at a time when farm animals of all kinds are bringing such remunerative prices is no inconsiderable matter.

Sheep occupy a position on the farm which no other stock can replace. They are comparatively inexpensive to keep; little feed is required in summer and but little care in winter; noxious weeds are nipped to the crown and forever vanish from their feeding-ground; grass is eaten which no other animals desire, and the forage in their winter bill-of-fare is often without a selleng price. Few farmers but would enjoy seeing a flock of these harmless creatures within the limits

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631



FOUNDED 1866



of their farm, but cannot. Dogs there may be that are valuable and perhaps worth their keep. but such appear to be scarce. People have so accustomed themselves to seeing his canine majesty on the door-mat or upon the lawn, that they have learned to think him a necessity. Some keep him to assist in handling stock, and where a well-trained collie can be employed, no objection can be offered. Others harbor a useless member of the tribe only to announce the presence of a stranger within their gates. Two and sometimes more half-starved specimens may be found on hundreds of farms or village lots, for the existence of which no excuse can be given. The havoc that has been wrought by these mongrels need not be discussed ; they are known with sorrow to many sheep-owners. The best means to remedy the difficulty is what concerns progressive men most.

Some years ago the Ontario Government gave the municipalities power to pass by-laws taxing all dogs within their jurisdiction. In taking advantage of this, few township councils have set the rate sufficiently high to cause any restriction to be found. It has been in the numbe suggested, and we believe wisely, that the rate should be at least two dollars for dogs and five for bitches. This would tend to so diminish the latter that a great falling off in the number of both classes would soon take place. In connection with the Ontario law as it at present exists, it is, perhaps, not generally known that where sheep or lambs are killed or injured by dogs the owner of which is unknown, the municipality becomes liable for damages to two-thirds the amount sustained. Dogs, too, other than those belonging to adjacent lots, if found roaming unattended on any farm where sheep are kept, may be shot by the owner of the said farm, without any liability for damages. The rigorous enforcement of these semi-protective measures would do much to improve existing conditions. However, a great awakening is needed. Repeated complaints have been reaching us lately from P. E. I., Nova Scotia, and New Brunswick, as well as other Provinces. The sheep industry is an important one to producing young Canada. The prowling hunters of the midnight hour are claiming supremacy. Which are we to have?

MAIN STREET, WINNIPEG.

FARM.

Road Reform in Ontario.

About twenty-five per cent. of the older municipalities in Ontario have changed their statute labor either by abolishing the system or commuting the labor into a money tax. The projudice which formerly existed against in any way reforming the system has grown into a strong feeling of sympathy towards any reform that will bring about better results without imposing additional outlay. The objection at first made to the agitation was not so much an opposition to reformed methods as it was to a criticism of the manuer in which the work had been performed, and the amount of work produced by the expenditure. This was looked upon as being a condemnation of the work generally performed, not only at the present time, but in the past during the construction of pioneer roads. As the people became more familiar with the criticism statute labor, and also an additional expenditure of money equaling, as a general thing, a dollar of cash for each day of statute labor, was a sort of compound system which was difficult to control; that the two expenditures were not being united, and could seldom to advantage be properly connected, that in consequence the forces at work were divided; that the money and labor were being scattered to such an extent that it was almost hopeless to expect work of a finished or substantial character. It was clearly seen, in many sections, that men under the statute-labor system performed their work faithfully and well, that much interest was taken in the proper maintenance of their section or beat, while in other parts of the township the greatest indifference prevailed, much of the labor was not expended, and in other instances so much carelessness existed that even the work performed was of little consequence. People engaged in keeping up their own piece of road had reached the conclusion that they had nothing to do with other sections, and as a matter of fact they possessed little knowledge of the nature or extent of the expenditure in their township. They rarely

We are well pleased with the "Farmer's Ad-Although we live in town, the paper is vocate." always a welcome visitor to our home. We consider it all and more than it has been repre ented to be. Since we placed our advertisement in it. six months ago, we have had ready sale for our stock. It is not only valuable as an advertising medium, but is also full of valuable information for the farmer and of wholesome reading for the family whether living on the farm or in town or city. W. J. SHEAN & CO. Owen Sound, Ont.

that the it was readily was in the public good. Money was being ex-



CHEVELEY EMPEROR. Yearling Southdown ram. First prize and champion, Royal Show, 1902, OWNED BY COL M'CALMONT, M. P.

pended and labor performed in producing work of such a temporary character as to be lost sight of in a few weeks, only to be repeated almost annually. It was made manifest that the roads of the country were not being maintained by statute labor only, but that the people, in addition, were subscribing very large amounts of money and that our roads were not by any means improving in a manner consistent with this outlay. It became apparent that the present system of roadmaking, embodying an expenditure of

thought that the other sections were of about as much importance to them as their own, and, as a matter of municipal economy, it was their duty to see that in every section due importance was attached to the work and every day and every dollar spent should be spent to the best advantage

To get the people to understand that the movement was one in their avor, rather than antagonistic to their interests; one of economy, rather than of greater expenditure; that modern implements and labor-saving machinery were just as necessary on the public highway as on the farm; that organization, system, caseful y-prepared plans and specifications were as essential in the building of roads as in the building of any other structures or works; that careful supervision and proper direction of the forces employed were of importance. was possibly the most difficult task in connection with the work of road reform.

In most of the townships where changes have been made, they have been of the most revolutionary character, and are about as complete as is necessary for the work in hand. The by-law of the Township of Pelham, which was most carefully prepared, a copy of which I enclose you, is one which has been very much used as a standard. In the remainder of the townships where the o'd system has not been entirely changed, it has in a great many ways been modified. The number of pathmasters has been reduced, thus concentrating to a greater extent the expenditure; modern implements are employed and are being worked under the management of a commissioner appointed by the council. The money raised by general tax is used for operating machinery, such as

The fundamental

thismoney is not being

profitably expended,

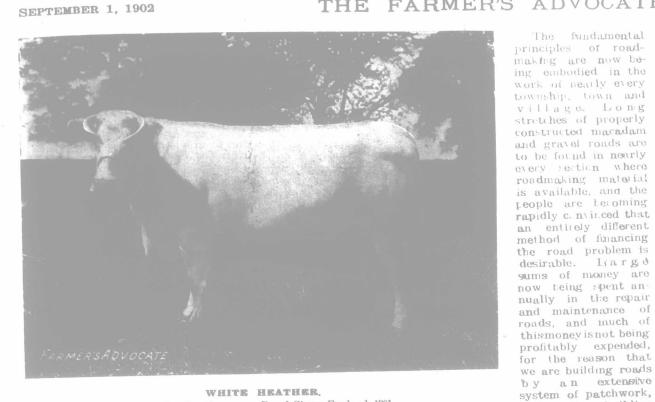
for the reason that

we are building roads

by an extensive

rather than building

them in a compro-



WHITE HEATHER. Champion Shorthorn cow, Royal Show, England, 1901. PROPERTY OF MR. J. DEANE WILLIS, BAPTON MANOR, WILTSHIRE.

graders for forming the road, rock crushers for . hensive and finished mammer and repairing them properly preparing material, and in making con- by a system of proper inspection which will procrete pipe for small sluices and concrete arches vide for their maintenance by not allowing them in large culverts, leaving the statute labor to be to get out of repair. A. W. CAMPBELL. in large culverts, leaving the statute labor to be expended in the hading of g arelouly. These are modifications which have proven

very beneficial and are stops leading to a more complete change. A more careful inspection of the work is being generally made, a greater study is bestowed on the expenditure, and the people find in the work a subject of much interest and importance.

Possibly one of the most encouraging features noticeable during the past few years is the fact that all meetings now being held for the purpose of considering the expenditure are called by the municipal authorities, and are as largely attended as possible by the people of the neighborhood. The warmest reception is extended to the advocate, the very closest attention is given to everything said. All questions asked are asked for the express purpose of getting at the best way of doing the work, in the cheapest and easiest and at the same time the most substantial, finished, and lasting manner. The expenditure is now in the hands of the municipal councillors and is receiving the best and most careful consideration. Fermanency and durability are sought, and the most needful work is first under-

taken. While much has been done along the lines of instruction, much remains to be done. An annual meeting should be held in every municipality, for the purpose of talking over the question of roadmaking, at which the season's work should be mapped out. This meeting should be attended by every ratepayer, and no other question should at this meeting be considered. Detailed statements of all the work in the township and the cost of each piece of work should be given.

In Eastern Ontario for the past two years an illustration train has been managed by the East-ern Ontario Good Roads Association. This train and has constructed is operating in ten counties, many stretches of ideal roads, which serve as an object lesson to the people in the surrounding districts. The outfit consists of rock crushers, road graders, steam roller, and all such tools and implements as are necessary for doing good work. Each machine is attended by a man experienced in its use. An expert in the manipulation of concrete goes over the ground in advance of the train, and at gravel pits in every township, by mixture of coment and gravel, manufactures samples of concrete pipe, and erects a sample arch culvert, showing to the local author ities exactly how the work is performed, and what it costs. During his visit he fully trains one or two local men in the art of making in a simple way substantial and durable culverts. This train commenced its work in June, 1901, and was constantly engaged during the whole season. The demand for its continuance was so great that it commenced operations as early this season as the weather would permit, and has already gone into a number of townships and has done a lot of excellent work. Such an illustrating outfit should be encouraged in every part of the Province. There are many municipalities anxious to undertake the betterment of certain stretches of road. They are prepared to furnish material, but are unfamiliar with the use of such machinery, and are incapable of providing it. Should one of these outfits be at their disposal, they would readily take advantage of showing to the whole community how easily, cheaply and perfectly implements of this kind perform their work, and how much more substantial the results a.re.

Commissioner of Highways.

Beautify the Farm. BY THOMAS BATY.

In preparing goods for sale, much importance is given to having them put up in neat, attractive form. How nice the pound prints of butter sent out from a creamery look, each one done up



ROYAL MAJESTIC. Young Berkshire boar, sold by auction for \$400, at Roscoe, El., August 6th, 1902.

separately in parchment paper neatly folded, with name printed in good design where it can be plainly seen. The actual quality of butter is not improved by being put up thus, but its selling This not because the majority are fools, but because we all, rail at it as we may, quality is. like a thing better if it looks well. For instance who would give as much for a chicken with the

this small matter. By the case cise of a little care straight plowing can be made the rule, not the exception. The seed drill should te driven as straight as po sible, and drills for roots and marks for corn lows can easily be made so that it is a positive pleasure to look at them. No extra labor is required, rather labor is saved, it is a gain in every way, and besides there is the stimulus to the worker, whether hired man or farmer, which work well done brings.

The appearance of many farms, fine enough in other respects, is spoiled by weeds. How often are we grieved to see grain crops smothered with mustard or overtopped by thistes? Wild oats wave their plumes on high, and what should be hoed crops are merely breeding grounds of foul seeds. It may be impossible to keep a place absolutely clean, but to have it fairly clean, so that the presence of weeds would not be noticed by passers-by, is not only possible, but profitable, and we have, instead of an eyesore, a sight good to look upon. If we object to the statement that it is a profitable and not a costly process to keep weeds in subjection, let us consider the question, "Where are the farmers more than usually prosperous? " and we must admit in well-farmed, clean sections.

It is a pleasure to note the great improvement that has been going on in the appearance of farmhouses and surroundings. To our mind there is no place that can excel in the air of solid comfort a well-kept farm homestead. In one very important respect, no house in a crowded town can approach one on the farm; that 's, in having spacious surroundings. How important this is may be judged from the fact that in most pictures of factories or business houses the surrounding houses are not shown, but often instead there are pictured trees and grounds that have no existence. The most common mistake in the attempt to beautily the home has been the planting of trees too thickly in front. Windbreaks are all right at the side or back of the house, but not in front. To remove a number of trees which obstruct the view and hide the house is thus, in many cases, the reform most needed. If the house is far from the road, an avenue of maples, straight or winding, with evergreen hedges nearer the roadway, makes a delightfu entrance way. For ornamental hedge purposes nothing can equal the common cedar. In most places they can be got for the work of pulling or digging. Hedges can be used to a limited extent about the house; for instance, in separating the flower from the vegetable garden. Of course every farmer should have both. We are not joking, we really mean it. Sad it is that one's sincerity in giving such advice should sometimes be doubted. But for look's sake neither will compare with a well-kept lawn. Such a lawn, with some handsome single trees, a clump or two of flowering shrubs, also a few single specimens, some nicely shaped flower beds, is perhaps the most telling thing in outside ornamentation.

It will be noticed that in the foregoing hints nothing has been suggested that need cost much Most of the trees needed, such as maples, elms, pines and cedars, can be had for the dig-It is well, however, to plant some numsery trees. First in the list is the Norway spruce, finest and fastest-growing of all; also mountain ash, cut-leaved birch, catalpa, etc. More use might be made of fruit trees for ornament than is generally done.

It is well to have a well-haid-out plan for the surroundings of a house, but no design, however

plucked, as for one neatly dressed and done up? We make the statement fearlessly that an article more pretentious the plan the worse the effect if

that looks well, in comparison with one that does not, is not only worth more to sell, but more to keep-is, in iact, better value-and that this applies to farms as much as to most kinds of property. Not long ago we saw a farm with fairly good buildings, the house a solid, sensible new brick, but around it there was not a tree or bush or flower, if we except some tunches of wild chamomile or tory weed, as it is called by some, while there roamed at will in the yard about the house a number of pigs. To say that such a place could be increased \$500 in value at a cost of less than half that amount would be making a very mild statement indeed. Many of the things by which a farm can be improved in appearance cost but little. The place can be laid out so that fields are even-sized and without gores, the fences straight and the fence sides free from weeds and bushes. Some places are very unsightly from lack of attention to



FLOSETTA TEAKE. First-prize and sweepstakes Holstein cow. Winnipeg Industrial Exhibition, 1902. Daughter of the famous Daisy Teake's Queen. BRED AND OWNED BY JAMES GLENNIE, LONGBURN, MAN.

MARKET SLIP-LOW WATER-ST. JOHN, NEW BRUNSWICK.

things are neglected. That is where most of us One thing in which we are much behind our fail. neighbors of the Eastern States is in the use of paint. How many houses there are which have been painted but once, when they were built, and have been dingy and weatherworn for a generation ? It is different on the other side. It is no uncommon thing there to see a frame house 60 or 70 years old looking almost new, so well has it been painted. Farmers can do their own outside painting if they try, and the phrase "fresh as paint " shows the improvement in appearance that would be effected.

634

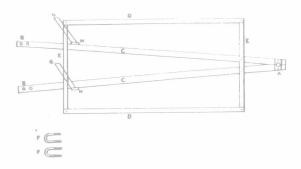
The Silo: When and How to Fill It.

So much has been written in past years on "silo filling," that those who have been interested in the subject will have but little to learn. There may be others, however, who have not had a silo or been reading the "Farmer's Advocate," until this year, who are anxious to see the question discussed. To these this article is dedicated.

As corn is the chief and, in fact, the only plant used to any considerable extent in this country for silage, the exact time at which it should be cut has envolved some controversy, both on the part of scientists and practical farmers. Until recently, the consensus of opinion has generally been in favor of cutting in the late milk or dough stage, but either by accident or experiment, good feeders have found that when it was allowed to reach such a stage of ripeness that ears may be removed for seed the most satisfactory results are obtained. It has been pointed out that at that period of ensiloing, as compared with the former, the ears of corn have a higher feeding value owing to their greater maturity, and that the stalks and leaves contain a lower percentage of water; hence there is an absence of that excess of acid so objectionable in silage. In certain northern districts, the fear of frost causes some to begin cutting before corn has sufficiently ripened, believing as they do that freezing lessens to a large extent its usefulness. This, in a measure, is true, but not to the degree generally believed. Where the corn is cut soon after freezing takes place little loss is sustained, and when the advantages to be gained are considered, it is better to risk a low temperature in the hope of securing a riper corn. The different methods in vogue for cutting corn appear to vary with different localities. Many who grow limited areas still use the hook and cut by hand. Others have a low sled or boat, upon either side of which is firmly fastened, in a slanting position, an old crosscut saw with the back extending outward and sharpened for cutting. The end of this saw extends a foot or so from the boat, and is supported by a heavy bar of wood. This apparatus, which is propelled by one horse, is built just wide enough to catch two rows : upon it stand two men, who take the stalks as they fall, and as an armful has been cut the horse is stopped and the bundles are laid down. This process is, of course, slow as compared with a good corn binder, and where a number of farmers can co-operate or each have enough corn to make the purchase of a binder profitable, the latter is much more satisfactory.

In hauling to the silo the practice envolving the least labor will be most economical. The ordinary farm wagon with the reach taken out and heavy sills of considerable length placed under the axels and extending from hind to front wheels, and having a platform built thereon, as shown in accompanying out, makes a handy truck upon which to load and haul the corn to the silo.

In cutting corn the exact length desirable still remains a matter of opinion, but, all things considered, about an inch long seems to be pref-



erable. If cut longer it does not pack so firmly in the silo, consequently does not keep quite so well, and a higher percentage is apt to be refused by stock. It certainly should not be longer than an inch. The practice of shredding (tearing in fine shreds, efficient machines for which are on the market) instead of cutting is gailing in a prize. Although in some localities speak from experience, there is, doubtless, much which an engraving has previously been made, to be said in its favor. The way in which the cut corn is elevated to petitors.

FOUNDED 1866

the silo matters but little-either carriers or blowers are satisfactory, and many prefer the latter-but the corn should be made to fall near the center, and better quality of silage will be assured if a man be stationed inside to keep the mass well mixed and tramped. The slower the silo is filled the more tons can be stored therein. Some follow the practice of filling and allowing to settle for a week, and afterwards filling again. The chief objection to this is that there is apt to be a layer on the top of the first lot spoiled through fermentation. In any case a second filling will be necessary unless considerable time has been spent in the operation.

Since siloing was first introduced much has been said regarding the proper cover for the silo. A heavy cotton cloth well oiled has been recommended and used with fair results. This cloth is useful as a covering even while the silage is being fed. A much commoner practice is to place about a foot deep of chaff or cut straw over the corn ; on this may be spread a few handfuls of barley, and the entire mass well moistened with water. Where this is done the surface soon becomes impenetrable to air, and fermentation in the upper layers of silage ceases.

Camera Competition.

Last year the "Farmer's Advocate" conducted a camera competition, which proved decidedly popular. The large number of amateur photographers who sent in samples of their work and the artistic excellence of the photographs indicated in a surprising degree the progress that has been made in that direction. Many of the photos were quite equal in artistic excellence and execution to the work of professionals, the subjects selected showing great variety and interest. So encouraging were the results, that we have decided to announce another competition open to amateurs, and to offer much larger prizes than we did in the competition of 1901. We now offer eight prizes, as follows: 1st, \$10; 2nd, \$7; 3rd, \$5; 4th, \$3; 5th, \$2; 6th, \$1; 7th, \$1; and 8th, \$1; for the best photographs of country homes, individual animals or groups, gardens, field scenes, orchards or fruit trees, bits of scenery or anything of that nature, subject to the subjoined rules

All photographs must not be less than 4 x 5 inches in size, mounted, and be the work of amateurs.

All photographs must be clear and distinct in detail and well finished.

'They must reach the "Farmer's Advocate" office, London, Ont., not later than October 1st. 1902.

The name of the competing photographer and post-office address, and the name and location of the scene, must be marked on the back of each photo.

Any person competing is at liberty to send more than one photograph if desired, but only one prize will be awarded to the same individual.

All the prizewinning photographs will become the property of the "Farmer's Advocate" for the purpose of illustration. We reserve the right to purchase, at 25 cents or 35 c nts each, according to size, any photographs that do not win

No photograph is eligible to competition from

and photographs must be the work of com-



NORTH-WEST ARM, HALIFAX HARBOR.



C. J. ▼.

Two-year-old Shorthorn bull; winner of the championship at the Royal Counties Show, England, 1902. PROPERTY OF MR. J. DEANE WILLIS, BAPTON MANOR, WILISHIRE.

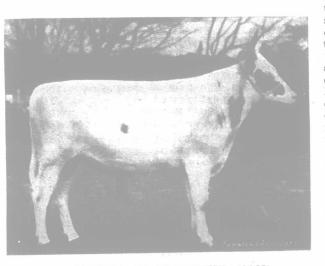
Health on the Farm Affected by Insects.

Medical investigation of the causes of certain diseases to which country people are especially exposed, prominent among which are malaria and typhoid fever, appears to have traced the origin, or, rather, the transference, of these diseases from affected or unaffected persons to certain mosquitoes and the common house fly, malaria being carried by the former and typhoid by the latter. Malaria has been called by medical men a country disease, it being generally most prevalent in swampy regions or where there are side pools of still water in the vicinity of streams. Malaria in cities, as a rule, is found only with persons who have contracted it in the country or in the suburbs, although with cities having marshy places on their borders, a malarial belt may exist, the extent of which depends upon the direction and force of prevailing winds and especially of the night breezes. The old idea that malaria is caused by breathing the miasma of swamps, it is claimed, has been exploded, and it has been discovered that the disease is contracted only through the bites of mosquitoes of the genus Anopheles. The cause of malaria is the growth and development within the red blood cells of a very minute parasitic organism belonging to the lowest group of the animal kingdom-the group Protozoa, or one-celled animals, which includes those minute creatures known as Amœbas and others, and which live in the water or in damp sands or moss, or inside the bodies of other animals as parasites. This parasite reproduces in the body by subdividing, eventually bursting the red blood cells and entering the blood serum as a mass of spores. Broadly speaking, when the blood of a human being is sucked into the stomach of a mosquito of the genus named, the malarial parasite undergoes a sexual development and gives birth to a large number of minute spindle shaped cells known as blasts, which enter the salivary glands of the insect and are ejected with the poison into the system of the next person bitten by the mosquito. If this person happens to be non-malarious, the malaria has thus entered his system and malarial symptoms result. So far as at present known, this is the only way in which persons become malarious, and in order to avoid this result it is necessary to study and plan to avoid the bites of malarial pect that the average reader will study the habits the disease should not be spread to healthy indi-and description of the different varieties of mos-viduals. That it is so spread is unquestionable. Glasgow, in individual cases and cold storage.

THE FARMER'S ADVOCATE

quitoes, which are given in full, with engraved illustrations, in an excellent bulletin, No. 155 of Farmers' Bulletins of the U.S. Department of Agriculture, by Professor L. O. Howard, Entomologist, we commend what are set forth as the most practical measures to be taken to prevent malaria, which are the draining or filling up with earth of swampy or low-lying places where pools are liable to form ; the covering of the surface of pools with a thin film of kerosene oil, and the use of screen doors and windows, together with a thorough search of the house for mosquitoes that have found entrance, and their destruction, which may be facilitated by burning a small amount of insect powder (pyrethrum) upon a tin dish cover. Persons wishing to avoid malaria should not sit out of doors exposed to the bites of mosquitoes at night, and those having malaria should be carefully screened at night to prevent them from being bitten by mosquitoes, which, becoming thus infected, would become potential carriers of the disease. Such patients, systematically treated with quinine, the dose being always given at the beginning of the chill, will soon be rid of the disease. The time of dose is impor-tant, and the reasons for the time has been abundantly proven by the study of the life of the parasite in the blood cells.

TO PREVENT TYPHOID FEVER.-The com-



NOT LIKELY OF HILLHOUSE (4469). Typical Ay shire bull ; winner of numerous first prizes and championships. PROPERTY OF JAMES HOWIE, HILLHOUSE, KILMARNOCK.

mon house fly is believed to be the principal insect agent in the spread of this disease, and this insect is especially abundant in farmhouses and other country houses in the vicinity of stables in which horses are kept. The reason for this is that the preferred food of the larvæ of house flies is horse marane. They are also attracted to and will lay their eggs in human excrement. Under favorable conditions they will breed, to some ex-tent, in this excrement. They swarm in kitchens and dining-rooms where food supplies are exposed. They are found commonly in box privies, which sometimes are not distant from kitchens and dining-rooms. Therefore, with an abundance of flies, with a box privy near-by, or with excremental deposits in the neighborhood, and with a perhaps unsuspected or not yet fully-developed case of typhoid in the immediate neighborhood, there is no season why, through the agency of contaminated flies alighting upon food supplies,



635

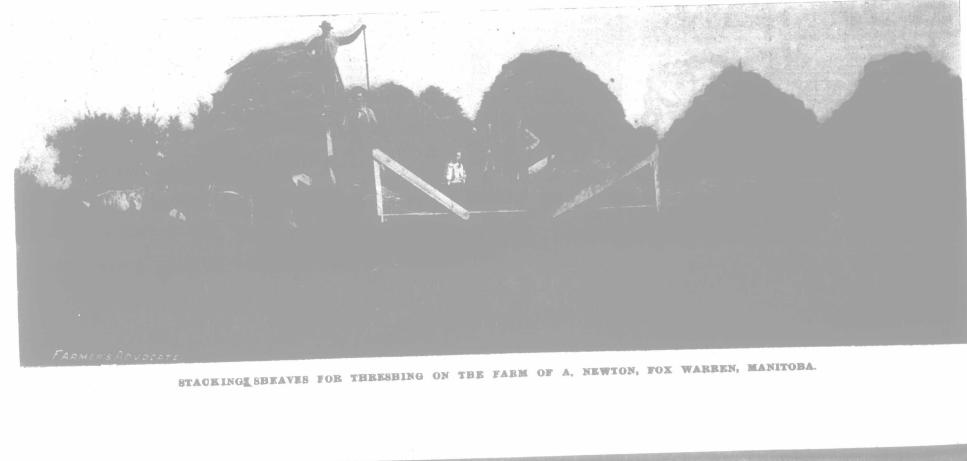
HIBISCUS OF GLAMIS 32791. Aberdeen-Angus heifer; first prize and reserve champion, Royal Show, Carlisle, 1902. PROPERTY OF EARL OF STRATHMORE.

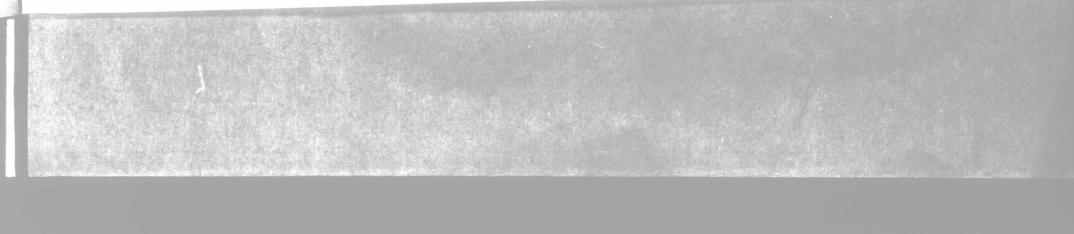
The remedy is plain. It consists of proper care of excreta, the destruction of flies, and the use of screen doors and screens for windows when raised, which are not expensive and can be purchased ready-made, or may, perhaps, be more cheaply home-made by a reasonably handy man. Where the old-fashioned box privy is yet in use, care should be observed to use disinfectants freely and often, fresh lime being the most convenient, and to have it cleaned out occasionally and the contents deeply buried and covered with lime. Where a good earth closet is in operation, and where, in case of illness, the excreta of patients are promptly disinfected by the use of lime or solution of copper sulphate (bluestone), both of which are cheap and easily applied, flies breeding in the neighborhood will have practically no opportunity to become contaminated with typhoid germs. Horse manure, however, should also be attended to by being removed, if not daily, at least once a week, and placed in a pit or treated to liberal applications of lime. Neglect of these simple and easily practicable precautions is little short of criminal, and in many cases is doubtless the cause of much illness, suffering and expense, and the sacrifice of valuable lives, bringing grief and sorrow to the inmates of the home and breaking ties which might have grown and strengthened with mutual benefit in the passing of years. People are apt to seek to console themselves with the view that all such instances of the removal of their friends are dispensations of Providence, but in all seriousness we believe it is wiser to recognize that in this respect, as in all others, Providence helps those who help themselves, and that by doing our duty in so far as we know it, by attention to the laws of health and the principles of cleanliness, we may become coworkers with Providence in the prolongation of useful lives and the maintenance of the happiness of home.

The Best Going.

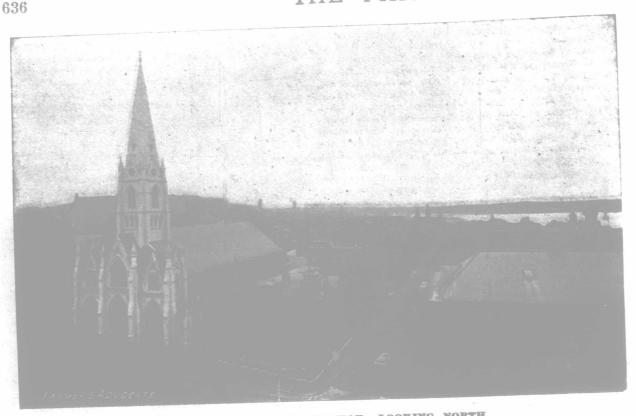
The "Farmer's Advocate" is well worth the price that is charged for the same. Many a wrinkle is found between the red covers which can be put to practical use. It is the best farmer's SAMUEL WOOD. paper going. Wentworth Co., Ont.

Experimental shipments of Red Astrachan





FOUNDED 1866



BARRINGTON STREET, HALIFAX -- LOOKING NORTH.

From Sickles to Binders.

It is not likely that the sickle was the first implement used in cutting down grain, but it is going far enough back to begin with. It was used from time immemorial, by all the great nations of antiquity. Egyptians, Jews, Babylonians and Chinese used the sickle in their hurvest fields, and from sculpture and paintings we learn its shape was much the same as the reaping-hook of the present day, occasionally used in cutting down corn. In the report of the Northumberland (Eng.) Board of Agriculture for 1798, the secretary writes: "Most of the grain is out with sickles, by women, seven of whom, with a man to bind after them, generally reap two acres per day. Oats and barley are sometimes mown, but are more generally reaped, according to the practice in Scotland."

Homer, celebrating in song the Siege of Troy, 1194 B. C., speaks of the well-to-do farmer as having fields

" Crowded with corn in which the reapers toiled

Each with a sharp-toothed sickle in his hand."

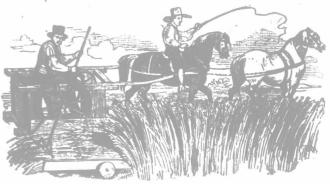
The first historical mention we have of the sickle is in Deut. XVI., 9: "From such time as thou beginnest to put the sickle to the corn. Here it is spoken of as a well-known implement, brought from Egypt, or reaching back to the days of Abraham. An improvement was made on the sickle by the Hainault scythe, imported into Eng-land from Belgium. This was a blade 2 feet 3 inches long, with a handle 14 inches long. Held in the right hand, and encircling the grain with the left, aided by a crooked stick, a smart blow would bring around enough to make a sheaf. Λ good hand could take down half an acre a day, and the price ranged from \$2.50 to \$4.50 per

In all of the rcaping contrivances, up to this time, the knives had the scissors motion. Like the construction of a pair of sheep-shears, the blades or cutting part moved out and in. Where the grain was thin, it worked fairly well, but in heavy grain the knives were liable to choke.

But the reciprocal or shuttle motion of the knives was beginning to occupy the inventive mind, and not to a mechanic or a farmer, but to a minister of the gospel, belongs the honor of constructing the first really serviceable horse reaping machine, when in 1826 the Rev. Patrick Bell, parish minister of Carmylie, in Scotland, brought out the celebrated "Bell" reaper, that cut the grain on the very same principle as our own mowers and binders of the present. in 1829, it was tested in a field of grain at Powrie, in Forfarshire, in the presence of about 50 practical farmers, who were all highly pleased, and signed a document that the machine, with one horse, cut down a breadth of five feet at the rate of one acre per hour, and did it well, keeping from 6 to 8 persons binding the grain. The Highland Society awarded Mr. Bell \$250 of a premium. In the Bell machine, the horses went behind and pushed the machine, laying the grain of in a swath. Several Bell machines were used in the Carse of Gowrie, and at least four were shipped to America, and gave pointers to American inventors

A woman who in her youth followed the Bell reaper, with 4 or 5 other young women, lifting the grain with short-handled rakes, told me it was proposed to take the machine to exhibit in the grain fields of Ireland, but they refused to go, fearing they would all be murdered.

In 1822, a self-reaper was invented by Mr. Samuelson, of Banbury, Eng., and is reported to have been capable of cutting 14 acres per day. This machine was the first to have a tilter. It had four rakes that could be set to throw off the sheaf. The driver walked or rode on one of the horses. Similiar to this was the invention of Mr. Hussey, of a manual delivery reaper, patened in 1833. This was followed in 1834 by the Mc-Cormick mechanical delivery reaper, laying the grain off in swaths like the Bell machine, but neater and by means of a sort of Archimedean screws. Both the Hussey and McCormick machines became very popular. In the Hussey, the sheaves had to be lifted before the next round could be cut. This was a drawback. In the Mc-



HUSSEY MACHINE⁴ 1833⁴

Cormick, the whole field could be cut without waiting till the swaths were bound.

A great interest was awakened in reaping grain by machinery, at the World's Fair of 1851. The two most popular American reapers, the McCormick and Hussey, were sent over to England for exhibition and trial ~After being thoroughly examined in Hyde Pack, they were tested under the auspices of the Royal Agricultural Society of England, on crops of grain in different parts of the country. At the close, the preference and Exhibition medal were given to the McCormick, but Mr. Hussey was not satisfied, and at a subsequent trial by the Cleveland Agricultural Society, the decision was given in favor of the Hussey reaper, Garrett-Crosskill and all leading implement makers adopted Husseys, and great numbers of them were turned out. In the meantime the Bell reaper had been greatly improved and those manufactured by Crosskill were chiefly used and continued till superseded by others of superior work-

ing. At the Paris Exposition of 1855, models of all the best French, American and English machines were tested in the grain fields of Trappes. Many claimed the prize, but the officials awarded the medal to McCormick, of Chicago, and the first-class silver medal to J. H. Manny, of Freeport, Illinois. The Emperor Napoleon was so highly pleased with the McCormick machine that he purchased it.

In the same year, Seymour & Morgan's single reaper (hand rake) was introduced into Canada and did good work on smooth ground. At the Provincial Exhibition in Kingston in 1856, it

Pliny, A. D. 70, describes the first mechanic reaping machine we have any account of. He says : "In the extensive fields in the lowlands of Gaul, vans of large size with projecting teeth on the edge are driven on two wheels through the standing corn by an ox yoked in a reverse position. In this manner the ears are torn off and fall into the van." The conception in the con-



BELL MACHINE, 1828.

struction of this rude Gallic machine seems to be continued in the Deering Header of the present day, driven by four horses, accompanied by a van into which the heads of the grain are received as they are elevated from the reaper. But the first reaping invention of any historical importance in recent times was made in 1785, by Capel Loft, and was immediately improved on, and in 1812. the Dalkeith Farmers' Club. to stimulate genius, offered a premium for the best serviceable reaping machine. The prize was taken by Mr. Smith, of Deanstow, but another was brought out in 1815. The names of several inventors occur about this time, among whom may be mentioned Mr. Mann, of Wigtonshire: Mr. Ogle, of Remington, Eng., and Mr. Scott, of Ormiston.



LUNCH HIS NOW READY.



THE FARMER'S ADVOCATE.

took first prize as a reaper; Patterson taking first prize as a combined reaper and mower.

In 1858, the Marsh Harvester appeared, laying the foundation of the great Deering firm of harvest machinery. In this machine, a man stood on the platform and with a wisp bound the grain as it fell on the platform.

For some years previous to this, the Canadian farmer had been under the necessity of importing his reaping machines from the States, but at the Twelfth Annual Provincial Exhibition of Upper Canada, held at Brantford, Sept. 29 to Oct. 2, there was not a single foreign machine on the ground. Twenty mowers entered, but only eight came out for competition. Fourteen combined mowers and reapers entered and the prizes were as follows :

1st-" Ohio Buckeye, ' J. Forsythe. 2nd-"Standard," Noxon Bros. 3rd-" Ohio Dodge Rake," J. H. Grout.

Just when it was thought the reaper had reached the ne plus ultra of perfection, it was found to be possible to bind the sheaf as well as cut the grain, so the restless inventive spirit of the 19th century astonished the agricultural word by introducing the binder into our harvest fields, with what success I will leave your readers to judge.

At first, the binding material (wire) being considered a dangerous thing for the stomach if getting into cattle feed, farmers were shy in adopting the self-binder, but the drawback was soon overcome by substituting twine for wire.

Perhaps the most comical, but most disappointing, of all modern reaping machines was that exhibited by the patriarch of all reapers, Obed Hussey, at a great national trial held in July, 1857, in Syracuse. N. Y. Ninety-six machines from 14 States entered, but on the week of the trial the number was reduced to 40. Every conceivable design was represented. Self-raker, hand raker and swathers were there. Mr. Hussey's Baltimore cut a swath 10 feet wide. No rake was needed; when enough grain to make a sheaf had fallen on the table, a hand sitting behind the driver pulled a lever, the table tilted and the sheaf slid off. It promised to be something immense, but once around the field and it proved a ponderous failure, and left the field inglorious-OCCA. ly.

Our Scottish Letter. HORSES FOR CANADA.

During the past four weeks the chief thing happening here, and of interest to Canadians, has been the number of shipments of all kinds of pure-bred stock made by Canadian buyers. Almost every week shipments of Clydesdales and Shorthorns have been made, and Mr. Hopkins has been kept busy testing the latter. Fortunately, Clydesdales don't need to be tested, and less delay occurs in putting them through than in putting the Shorthorns on board. In a previous communication I gave some indication of the superior quality of the horses shipped by Mr. Robert Ness, Jr., Howick, Quebec, who is rapidly becoming a veteran among the exporters. Mr. Ness was always fond of the Clydesdale of the old short-legged quality type, and he is able to report a growing appreciation for that kind of animal in Canada. His five Clydesdales this year were perhaps truer to type than any he cad ever before taken away. Four of them came from Messrs. A. & W. Montgomery, and one from Mr. James Kilpatrick, Craigie Mains. Three were sons of the champion Baron's Pride 9122, whose supremacy as the leading sire of the day is more firmly established this year than ever. He was sire of every firstprize Clydesdale at the Highland but one. Besides being got by the champion sire, Mr. Ness' horses are out of mares of the best breeding, and some of them have already produced prizewinning stock. A threeyear-old stallion is out of a Darmley mare, the dam of the famous Lady Louisa, sold on one occasion for £800, or \$4,000. Another is descended from the famous mare, Maggie of Balgreddan 781, the dam of noted prizewinners by both Prince of Wales 673 and Darnley 222. From Mr. Kilpatrick, Mr. Ness bought a son of the Glasgow premium horse, Royal Carrick 10270, which stood second at the Highland in 1901 and was the Glasgow premium horse in 1900. Not content with Clydesdales, Mr. Ness also bought two Hackneys of blood and action, and several French The August shipments have been exceptionally horses. heavy. Amongst those who have made heavy shipments have been Bawden & McDonnel, Exeter, Ont., who dealt with Mr. D. Riddell, Blackhall, Paisley, and several owners in Cumberland ; Mr. T. E. Berry, Hensall, Ont., who got a number of horses from Mr. Peter Crawford, Dargavel, Dumfrles; Mr. J. A. S. Macmillan, Brandon, Man., who bought a Clydesdale, along with a number of Shorthorns, from Mr. Robert Taylor, Pitlivie, who has sold quite a large number of cattle to Mr. C. E. Clarke, St. Cloud, Minn.; Messrs. Smith & Richardson, Columbus, Ont., wno bought wherever they could find what pleased them ; Mr. Wm. Colquhoun, Mitchell, Ont., a veteran who never in his long career exported better horses than he took this year; Messrs. Dalgety Bros., London, Ont., who are opening up a big trade on both sides, taking away pedigee, horses and bringing back

a horse with a prizewinning record and a lot of breeding in him, from Mr. Picken ; and last, but certainly in no sense least, our old friend, Mr. Oswald Sorby, Guelph, Ont., who had nine horses and a prize mare all bought from Messrs. A. & W. Montgomery, Kirkcudbright, who were also the sellers to Mr. Colquhoun, and partly to Smith & Richardson. In each of these lots there were prizewinners, and it would not be wonderful were the tenth commandment frequently broken during the Atlantic voyage. Bawdenf& McDonnel had two notable prizewinners in Canongate 10521 and Sir Archie 10134. These are unusually big, good horses, and both had prize mares for their dams. One of Mr. Berry's horses was by a son of Baron's Pride, and out of a mare uterine sister to Prince Patrick, which won the championship at Chicago. The other is by the Glasgow premium horse, Prince of Clay, and his dam is a well-bred mare by the champion horse, Prince Robert 7135, the sire of the phenomenal prize horse, Hiawatha. In Mr. Colquhoun's lot are Peerless 10832, which had the Kirkcudbright premium two years in succession; Climax 10529, which had the Atholl and Breadalbane premium, and Prince Fragrant 11460, which had the Selkirk and Galashiels premium. Of Mr. Colquhoun's younger purchases, one is by Prince Thomas 10262, the H. & A. S. champion horse of 1900, and another is by Blacon Macgregor 11163, which had two premiums as a district horse in Scotland. One of the most notable horses in Smith & Richardson's shipment was Hopewell 11375, own brother to the renowned champion horse, Hiawatha 10067, the only horse which has ever won the Cawdor Challenge Cup four years in succession. Dalgety Bros.

workers; Mr. George Nixon, Mitchell, Ont., who got Altogether, there is a fine boom in pure-bred stock, and plenty of money can be made in the business by those who know how it's done.

The autumn pure-bred sales are now in sight. Macdonald, Fraser & Co. (Ltd.), Perth, have an enticing programme on hand, including both Scottish and English sales of Aberdeen-Angus cattle, and Scottish sales of Shorthorns. The Scottish block sales begin on Friday, Sept. 12th, when the whole of the Powrie herd will be sold in Perth auction mart. On the following day the herd of the late Mr. Geddes, of Blairmere, who was at one time President of the Board of Trade in Chicago, will be brought to the hammer in Aberdeenshire, and the week beginning 15th September will be fully occupied with sales from Milton of Noth (dispersion), Ballindalloch, Aberdour, Elchies, Anchorachan, Knapperna, and Hattonalap (dispersion), all in Banfishire and Aberdeenshire. The English sales open in week beginning 30th September, with Eshotts and Balliol College drafts, at Newcastleon-Tyne; Preston Bissett dispersion in Buckingham, Maisemore Park draft in Gloucestershire, and Trosley, West Malling, in Kent. These promise to be most interesting events, and are sure to be well attended. The first of the Northern Shorthorn sales will take place at Tillycairn, on 7th October, when the bull calves from Mr. Duthie's and Mr. Marr's herds will come under the hammer. On the following day, Pirriesmill and Newton joint sale takes place ; then on 9th October another joint from Jackstown and Westertown, and finally the Shethin dispersion on 10th October.

Ayrshire cattle men have recently been discussing their pedigree rules. They have resolved that after 1st January next Appendix

LANGTON'S DANEGELT. Superior Hackney stallion offered for sale on page 657. (See Gossip, page 666A.)



shire, Mr. Primrose Mchave taken away Prince of Cowal 10849, one of the Connell, who for many years has farmed an Essex clay. His book is entitled Agricultural Geology, and it is undoubtedly a remarkable production in every sense of the term. In it Mr. McConnell shows the influence of geology on agriculture, and he is to be congratulated on the amount of information conveyed in comparatively small compass. That a tenant farmer should have produced such a book during the intervals of his exacting labors is a most significant feature of our time. Mr. Mo-Connell's brethren everywhere should show their appreciation of his labors by purchasing the book.

cease, and no further entries of such foundation stock will be taken. This is a step in the right direction. Twentyfive years is long enough time to give breeders to record their foundation stock, and no herdbook should be kept open at both ends for a longer period. The resolution to close out unregistered sires gave rise to very little debate amongst the breeders of Ayrshires. and only twelve members voted on the question. This was a poor representation of the body of the members of the Herdbook Society. but the proposal to alter the rules was fully debated in the press. There can be little doubt that the change meets with the approval of the great body of the members, or they would soon have manifested opposition. Another Ayrshire item of much interest is the publication of a notable book by that eminent son of Ayr-

entries of bulls will

637

biggest stallions in Scotland and a premium Without making invidious distinctions, it may be affirmed that Mr. Oswald Sorby had the choicest lot in the shipment. His mare, Montrave Geisha 14584, won many prizes as a yearling and two-year-old, and her sire was the celebrated prize horse, Montrave Mac 14584, sold when a yearling for £1,000, and got by Macgregor 1487, out of the celebrated champion mare, Montrave Maud by Prince of Wales, gr.-dam the invincible Moss Rose 6203. This mare's dam and gr.dam, viz., Montrave Gay Lass and Lass o' Gowrie. were both almost invincible in their time. One of the best breeding horses has been picked up by Mr. Sorby, in Black Rod 10509. This horse was got by Baron's Pride, out of a Prince of Wales mare, and was well placed at the great H. & A. S. Edinburgh Show of 1899. More than that, and better, he has proved himself a good breeding horse in Lanark district, where he travelled with high approval for two seasons. The younger horses are by noted sires, and in some cases out of prize mares. One is from Lady Diana, which as a yearling was unbeaten in Scotland. Mr. Meharey s purchase has much prizewinning blood in his veins, and himself came from the famed stud of Mr. J. Douglas Fletcher, of Rosehaugh. Mr. Nixon's purchase, Kit Kennedy 11083, won first at Dumfries as a yearling and fourth as a two-year-old. He is a good horse.

Aberdeen-Angus cattle from Lord Roseberry's and other herds have been shipped to Canada during these weeks, and big shipments of Shorthorns are either on the way or about to set out. Clydesdales have been purchased for shipment to Australia and New Zealand, and leave England in a day or two for Melbourne.

" SCOTLAND YET."

Gambling at Local Fairs.

The directors of agricultural society shows in the Province of Ontario are warned of the existence of the Provincial Act. prohibiting all games of chance, under penalty of losing the Government grant. Wheals of fortune and all such gaming devices are a direct violation of that law, which prohibits any gambling or game of chance on, or within half a mile of the fair grounds. The penalty against the individual is a fine of not less than \$20, or more than \$100, with costs. Shut out the gambler and the fake side-show man this fall. Run a clean show.

Best Knife.

The premium knife I received is the best general-purpose farmer's knife I have ever seen. It is made of the very best material.

Yours truly, C. W. GIBBINGS.

Some Mistakes in Buttermaking.

BY LAURA ROSK, ANTICOVISING CO., N. F. The Scotch are canny. They take in everything, but are a wee bit backward in saying what they are thinking or doing themselves. I notice this very markedly at my meetings which are largely composed of Highland Scotch people. They sit or stand around, listening to my every word and noting my every movement, but never once have they told me how they make butter at home. That I have been only able to gather from observation, and from chance remarks.

I am sure that many have the cream too sour before churning, from the fact that four out of every five lots of cream brought me to churn have gone far beyond the desired acidity, and produce what I call a buttermilk taste in the butter. It is seldom I get cream which makes butter with that sweet, nutty flavor real choice butter should possess. The cream is raised in pans, earthen basins, and creamers. We find the water throughout the country cold and good-springs often Leing as low as 46 or 48, which should do good creaming if the milk is allowed to stand long I think, when the milk is set in the pans enough. enough thought is not given to have the cellars ventilated. I find that peculiar smell on the cream due to close, bad air. Once in a while 1 hear of a woman who sets her milk in shallow wooden tubs, called keelers-a practice that cannot be condemned too strongly.

I have found it to be quite a common custom to gather the cream in the churn or to put it in the churn a day or two before churning. They bring up the churn from the cellar the night before they are going to churn. If the cream is not warm enough before next morning they pour it into an iron pot and heat it on the stove. I need not tell the readers of the "Farmer's Advocate" how forcibly I denounce such bad methods.

Another fault much of the cream has, is that it is not stirred sufficiently, and in some cases not at all, during the gathering of it, and this accounts for the hard curdy matter found in the cream and sometimes in the butter. To insure a nice, smooth, glossy cream, it should be thoroughly stirred twice a day, right from the bottom to the top, and should be kept covered in a cool place. It is of prime importance to have clean, nice flavored cream, otherwise no amount of skill can produce a first-class butter.

If the butter-eaters had a keener taste with regard to the different flavors in butter, and would discriminate more closely as regards what might be classed good or bad, I am afraid a good deal of the butter made would have difficulty in finding a market. I do not hesitate to say this, for I feel sure many women realize they are not making as good butter as is possible.

The dash churn is quite in universal use. The butter is churned into lumps, then taken out into a wooden tray, washed and worked, or dressed, as they say, with the hands. After the women have seen me use the lever butter-worker, I hear them remark among themselves : "That's the best thing yet. It's just splendid. Why, she never touched the butter with her hands." That is the greatest surprise of all, to think I do not put my hands near the butter. The other day at a meeting, I could not help but be amused at one eld lady, who, people told me afterward, had I talked a week I could not have changed her views. She against working the butter with the hands, and said : " If you wash your hands well and scald them it is just lovely to work butter with them, and if you've never done it, you have something yet to learn about buttermaking.'

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A SUCCESSFUL CRFAMFRY MAID. Miss Mary Armstrong, of Owen Sound, Ont., who packed and prepared the highest scoring Pan-American Canadian butter, and who cared for over a ton of butter daily in 1901.

DAIRY.

A Fancy Brand of Cheese.

To meet the demand of the local market for a moist, fat cheese in convenient shape for grocers to handle, Mr. Chas. Johnston, in the Glanworth, Ont., factory, is this season making a flat twelvepound cheese in one-half and one-pound prints, indicated by slight creases on top and sides by the galvanized-iron box in which it is pressed. Its dimensions are: 12 inches long, 10 inches wide, and 21 inches deep. The only variation from the ordinary cheddar process of handling the curds is to the end of retaining moisture and richness. In a few days after the cheese are made they are dipped in melted paraffine wax, which improves their appearance and keeping qualities, though the demand and rapid consumption has thus far been such as to give them little or no chance There seems to be a growing to mature or ripen. demand for a mild, fresh cheese of that character. They are very handy for cutting up in the stores or for the table. The patrons who supply the milk are paid on the basis of the ruling market price for cheddars, and, as will be understood in making a moist cheese of this character, there will be a greater yield of cheese for a given quantity of milk than in making ordinary choese, the results being very satisfactory to the patrons. Greater labor is involved in ma the cheese being more attractive for the trade, a higher price is secured for them by the factory-We found them retailing in the London man. (Ont.) groceries at 14 cents per round. The process is covered by patent.

A PLONFER ONTARIO CREAMERY MAN.

A PIONFER ONTARIO CREAMERY MAN. Mr. James Struthers, of Owen Sound, Ont., who successfully promited co-operative buttermaking, and distinguished himself as a maker of prizewinning butter in Canada and at the Columbian and Pan-American.

The butter is mostly all packed in small wooden firkins, and taken to the country store and exchanged for groceries. A considerable quantity is put by for winter use, as the majority of the cows are only milking during the summer months. I find the women eager to learn, and expressing themselves as going to drop many of their old practices and adopt the new methods. Those who studied and read about buttermaking are doing nice work. They are always my most interested listeners, and no little wrinkle, in the art escapes their notice. It is a pleasure to talk to such women, for one feels that every suggestion is appreciated and will be put into use.

Making a Book.

Aug. 25th, 1902. Farmer's Advocate,'' London, Ont.:

Gentlemen.—As a reader of your valuable paper, I must say a few words of recommendation as to its merits, for I think it is most deserving, and if time would permit me just now I would endeavor to show how it is so invaluable to any practical farmer, or anyone who is aspiring to bring the greatest of all pursuits, agriculture, to a higher and more prosperous level. I am binding my numbers into a book of six months each, and I prize it very much, as uney contain matter which is worth dollars to any farm-

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Business Energy in Quebec Dairy.

It is sometimes said that the Province of Quebec is behind the times in agricultural pursuits, but Mr. Gus. A. Langelier, Quebec, proprietor of the Stadacona Farm at Cap-Rogue, has a method of presenting his products to the consuming public which progressive farmers everywhere would do well to consider. This enterprising dairyman and farmer aims to produce quality rather than quantity. In a neat and attractive circular he describes the care of his dairy herd, the sanitary condition of his stables, the health of his cows, and the general principles as to cleanliness which are observed in the manufacture and preparation of his dairy products, in such a way that attention is arrested and a demand stimulated for pure, rich cream, as well as for vegetables, eggs, fruit, poultry, etc.

The exercise of up-to-date business ability on this farm has resulted in the selling price of its products being 25 to 50 per cent. higher than the average on the market. Why not more of such enterprise on the ordinary farm?

American capitalists are going to build a \$500,000 hotel in Winnipeg.

Ontario has a big crop of apples, pears and peaches, but plums are very light.

er who will read. think, and act. I will do what I can to place your paper where it ought to bein every farmer's home. Yours truly, Grey Co., Ont. F. N. FIELD.



RESIDENCE OF CHAS. R. B. JBRYAN, DURHAM, NOVA SCOTIA.



WM. HUTCHISON. President Ottawa Exhibition.

Cheese Curing and Other Problems.

The "Farmer's Advocate," the other morning, found Mr. W. A. Bothwell, of Strathallan cheese factory, in Oxford County, a few miles north of Woodstock, turning out about 27 cheese of standard size per day, Monday's make numbering 45. This season's make will run to about 212 tons. The factory, though not so young as it used to be, was clean and frosh as a new pin, and the bright-flowering plants in the windows were an index of the general tone of the establish-Mr. Bothwell has been twenty years in ment. cheesemaking-twelve years at Spring Creek factory and eight at Strathallan—but he seems as open to make improvements and as ready to keep step with the profession as the newest graduate of a dairy school. The factory sells its whey at the rate of \$6.121 per ton of cheese made, to Messrs. King and Glaves, who feed hogs on a large scale, and it is pumped away underground 100 rods as fast as made. Some 33 patrons also buy whey at the same rate, and haul it away themselves. Their share is run from the vats into an elevated tank, regulated by a float, and each man's share is measured out to him accord ing to the milk delivered-so many inches of whey in the can corresponding with so many pounds of milk delivered. When emptied, the tank is thoroughly cleaned out every morning, even the washings running away in the pipes to the swine-feeding establishment. We found no bad smells about this factory. Leaving the large make-100m, with its flowing vats, curd sinks and special vat for washing curds, next comes the press room, which is about 38 feet square, and still further back, in direct line and connected by a narrow-gauge track over which a car carries the prossed cheese, is

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THE CURING ROOM,

which was really what the writer came out to

THE FARMER'S ADVOCATE.

shelving, thus saving much labor. The ceiling is 11 jeet high, and to shut out light and heat there are shutters inside and out. The walls, resting on stone foundations, are of brick, strapped on the inside and lathed and plastered. The ceiling is lathed and plastered on an S-inch joist. Above it is laid ordinary matched flooring, then a coating of asbestos paper, and above that another layer of flooring. 'The hot afternoon sun shining on the long west side of the curing-room was found to have a decided effect in raising the temperature within higher than it should be for the good of the cheese. To overcome this difficulty, 4-inch scantlings were fastened up and down on the outside of the brick wall, and upon these siding was nailed, left open under the caves and also at the bottom, so as to allow a circulation of air. Opposite three of the curing-room windows this siding is converted into shutters, which swing out, to be opened at night if a circulation of air is wanted through the during-room. The sun-break, which was painted white, has had an excellent effect, and the idea might be applied to advantage to many curing-rooms. The windows of the cellar below the curing-room are also protected from heat by board shutters. In the room are two ice boxes, 7 ft. high and 3 ft. square, which are kept filled with ice in specially hot weather. Outside is an ice house of 40 tons capacity. Two ventilators one foot square each extend upward to peak of roof, from the curingroom ceiling. They are, however, kept closed a good deal of the time in hot weather. On the foremoon of our visit the temperature stood at 63° Fah., the variations this season having been from 57° to 70°, the latter occurring only on one or two extremely hot days. In the storage section of the same building, where the temperature was not controlled, it had run up to nearly 80°. The cheese were free from mould, and presented a very fine appearance, and under the trier the



W. W. HUBBARD. Manager and Secretary Canada's International Exhibition, St. John, N. B.

quality proved to be equally good, being very meaty and rich and of good texture. The cheese made are all white. In cold weather a coal fur-nace, standing in the room, is used, with a small rear to furnish moisture. Two water pan in ordinary souttlefuls of coal lasts 24 hours. The brick chimney is brought right down through that ceiling into the curing-room, so that no furnace heat is lost, and there is greater safety from fire. A proper coal furnace is thought to be far superior to wood, and affords a much more uniform heat. Throughout both make and curing rooms strict attention is paid to cleanliness, and liberal use is made of paint and whitewash. Curing room floors, shelves, etc., are throughly scrubbed with caustic soda, the aim being to cure the cheese in a pure atmosphere, at a low temperature.



Secretary Canada Central Exhibition, Ottawa.

of glass. The idea is to shut out either heat or cold, and control temperature absolutely. Everything is up-to-date, and would represent an out-lay of probably \$7,000 or \$8,000. The institution is under the efficient direction of Mr. Burgess (formerly of Bluevale, Ont.), for several years in the P. E. I. Dominion dairy service, gess with several assistants and an engineer. Six teams are engaged hauling in the cheese made and taken out of the presses every day by the following nine factories: Spring Creek, Embro, North Oxford, Anderson, East and West Oxford, Brook-bank, Sweaburg, Harris Street, and West Oxford. The Government is assuming all the expense, and only asks for the saving in weight or shrinkage effected by means of curing under perfect conditions at low temperature, coupled with the waxing or parafining to which all the cheese is now subjected. The cold storage curing room has a capacity of 3,000 boxes of cheese, and the boxing room 1,000 to 1,500. Since July 1st about 6,000 cheese have been taken in and some 8,600 sold out by the salesmen of the factories. They are, of course, weighed in and weighed out. The cheese is cured at a temperature of from 56 to 57 degrees Fahrenheit, and at the time of our visit moisture stood at 89 degrees. A great deal of trouble was at first experienced with mould, which Mr. Burgess attributed, partly at least, to the dampness of the new room. This trouble has now disappeared, and it would seem about simultaneously with adopting the system of waxing the cheese with paraffine. A good many dealers have been paraffining their cheese, which provents mould and saves the heavier expense of scraping and re-scaleboarding. About 3-16 of a pound of parafine (a by-product of petroleum) will wax a cheese at a cost of about two cents. It can be bought from the refiners at about eight cents per pound. Parafine that will melt at about 120 degrees of heat is used, and the cheese are dipped at 200 degrees. In the Woodstock Station three cheese are lowered at a time, on a wooden three-bar rack, by a crane, into a galvanized-iron tank in which the paraffine is melted over gas. It is submerged for about 30 seconds. On rising in the air, the thin transparent coat-

639

see. The first section of it is a storeroom for loxes, etc., 25×32 feet, and next the curingroom proper, 60×32 feet, dark as night. Its capacity is 1,200 cheeses, and the track and car sun along the east side at right angles to the



W. K. McNAUGHT. President Toronto Industrial Exhibition.

THE GOVERNMENT CURING STATION.

Our next call was at the Dominion Government "Illustration station," as it is called, along-side the C. P. R. tracks, Woodstock. It is a modest, flat-roofed building, painted white. The curing-room proper is a basement, seven ject below ground and two feet ablove, making a 9-ft. ceiling. The site is practically on a gravel bed, ensuring natural drainage. On the other floor are the offices, receiving room for cheese, and ordinary experimental curing-room, boxing and weighing room, space for dipping the cheese in melted paraffine wax, and the room containing the gas engine and other plant connected with the Linde British Refrigeration System, which generates the cold air supplied to the tanks in various $apartments_i$ on which could be seen several inches of hoarfrost. 'The walls proper consist of six thicknesses of boards and four of paper, and the windows of the cold rooms have four thichnesses

On rising in the air, the thir transpirence of the ing, impervious to air, instantly hardens, so that no mould can form and evaporation of moisture from the cheese is prevented. If kept in a warm atmosphere the wax would soften and probably



H. J. HILL. Manager and Secretary Toronto Industrial Exhibition.

640

LT.-COL. W. M. GARTSHORE. President Western Fair, London.

rub off, hence the desirability of the cool puringroom. Heretoiore there has been great waste in shrinkage, and also many bad flavors have developed, due to warm curing-rooms or hot cars. A damp or "leaky" cheese, due to too much acid being used, will not take the paraffine properly. They should be dipped when dry, and a day or so after making.

The cheese remain in the Government ouringroom from two to three weeks. To illustrate results, Mr. Burgess weighed for us two cheese made on the same day, out of the same vat, in the North Oxford factory. One was paraffined and put in the cold curing-room ; the other was not waxed, and went into the ordinary curingroom. They were made on August 5th, and went into curing on Aug. 6th. We were there on Aug. 20th, and the results were shown as follows:

No. 1 .- Waxed and cold cured ; weighed when put in, 82 lbs.; weighed on Aug. 20th, 818 lbs.; shrinkage, # 1b.

No. 2 .- Unwaxed, ordinary curing room, at about 70 degrees; weighed in, 811 lbs.; weighed on Aug. 20th, 793; shrinkage, 18 lbs.; or a saving in favor of the former of 11 lbs.

The question of the ultimate quality of the cheese cured in this way will be seen as reports return to the salesmen, but it should be superior and command better prices. One salesman present stated that the buyer expressed his willingness to pay a of a cent more for such cheese. 'The Government is purchasing a few of the cheese which they are curing in the two ways, to be forwarded to Britain for official report.

The cheese in curing on the day of our visit presented an exceptionally handsome appearance, the makers in the nine different factories evidently vieing with each other in making and finishing their cheese as well as possible. The shelves presented a handsome example of well-made anadian cheddars

THE FARMER'S ADVOCATE

Brockville and St. Hyacinth stations are fitted up with ice cooling arrangements, and the one at Cowansville with cold air like Woodstock. These stations are big object lessons in curing cheese, and are partly experimental; in other words, to learn and to demonstrate, even though it costs a good deal.

The product of factories may not come to be generally cured in consolidated curing-rooms like these, owing to the cost of such a system, as compared with proper curing-rooms at each individual factory. There are a lot of factories in Ontario which could best be reformed by being blotted out of existence and new ones erected in their places. The only wonder is that makers have been able to live in them and make cheese as well as they have done. There is an old hotbed of pollution under many a factory, and too many curing-rooms are little better than stables. One great step in advance would be good cement floors, with proper drainage from the makenooms; and a second, a proper house for curing, in which the lessons indicated above could be worked out in practice.

At Woodstock we have seen what the Government is undertaking to illustrate, and at the Strathallan factory what can be actually accomplished by an earnest, progressive maker

Good Milkers.

Writing of the lack of careful and kindly milkers, Mr. Valancey Fuller, in the Jersey Advocate, Says :

Anyone who has had a large dairy herd knows how hard it is to get first-class milkers, who will draw the milk rapidly from the udder without hurting that delicate organ, and yet get every drop the cow is capable of giving. The cow is a sensitive creature and requires to be handled in a very gentle manner, and no portion of her body is as sensitive as the udder. It is a great relief to the cow to have her over-distended udder relieved of the milk that is in it. How often have we stood in front of a cow who is being milked by a skilled and gentle milker (and no one unless he is gentle and sympathetic will ever make a really good milker) and seen the look of contentment which comes in the eyes of the cow; with half-shut eyes and dreamy look she gladly yields up the lacteal fluid we ask from her. She is prepared to do her part by man, and she asks in return that man do his part by her, by drawing the milk quickly but gently, not by unnecessary tugging at the teats, but by gentle, rapid pressure, and with a downward movement of the fingers

Good milkers are rare, and they are a priceless blessing on any dairy farm. It goes without saying that the cow should be milked regularly, at the same hour each day, and always by the same milker. We all know that a change in the time of milking, or in the milker, means a decreased flow of milk until the cow becomes used to the ways of the new milker and there is a bond of sympathetic confidence established between him and the cow.

In the matter of feeding and handling, much loss often occurs from lack of appreciation of the wants and needs of each individual proper ration may be compounded, but the duty of the feeder does not end here. It is folly to say that cows can always be fed in proportion to their weight, or that all cows will do equally as well on a similar ration. Each cow has her own individual power of assimilation and taste, both of which must be considered and satisfied, if we expect her to do her best work and give us the greatest net profit. These will vary less when cows have all been reared and bred on the same farm, as what will best suit the appetites and will be best assimilated by the cows is largely a matter of training. The writer has attained a slight measure of success in the handling and feeding of cows. He applies the laws as they affect the human race to the cow, and has attained the best results by so doing. The cow is, after all, our mother, the great foster-mother of us all. We should consider her as such, and treat her with the same kindness and consideration that a mother is entitled to at our hands. The writer tries to know each cow of the herd : to appreciate her wants and to supply them ; to get at the peculiarities of each cow and cater to them to establish a bond of sympathy between him and his cows. To say cows have no affection for and no memory of their attendants is all nonsense. The writer has seen many cases of both illustrated. To make the greatest success of a herd, study the wants of each cow. Know such wants and supply them. Compound a ration that will beste suit such wants and secure the greatest profit. Treat your cows kindly and they will readily respond thereto. Curry them daily; it is health-ful and beneficial to the cow. Do not expose them to inclement weather in winter, nor to the

J. A. NELLES. Secretary Western Fair, London.

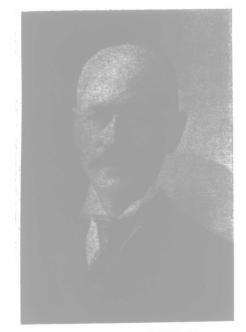
severe rays of the sun and heat of summer, without proper protection or shelter. Feed them regularly, at the same time each day. Have them milked at the same hour, by the same man, each day. Establish a bond of sympathetic friendship between you and your cows, and you will go a long way towards making them the most profitable bank account you can tie to.

Pure Water for Washing Butter.

One of the absolute essentials in dairying is pure water for the cows to drink and for use in the dairy room for cleaning utensils, setting milk and for washing the butter. A "fishy" flavor in butter has frequently been traced to the water supply. The manager of an Australian butter factory says that he has found it to be practically impossible to make good butter with water from creeks and streams. He first experimented with water from streams and rain water caught in 1,000-gallon tanks. He invariably found that the butter washed with the stream water got off flavor after it had been in the market a little while, but that the butter washed with rain water remained good for a long time. He then tried filtered and unfiltered water. The butter was made in two lots and watched. After seven days both butters were good. After fourteen days the butter washed with filtered water was good, while the butter made with unfiltered water was slightly off and molds were showing on the parchment. After twenty-one days the first butter was still good, while the other was off on flavor and was bitter near the surface. After forty-two days the butter washed with filtered water was good, while the other was more pronounced in its bitterness. At fifty-six days the first butter was slightly off in flavor, but eatable, with no mold showing. The butter washed with unfiltered water was very moldy and had a rank and very bitter flavor. unfiltered water had all the appearance to the eye of being pure. Without doubt much of the bad flavor of butter is caused by the water with which it is washed.

FOUNDED 1866

Mr. Burgess points out that no method of curing will make a good cheese out of a bad one. Ye canna mak' a silk purse out o' a sow's lug, but at the same time a fairly good cheese may be epoiled in a bad curing-room or by deficiencies in transportation. There is another curing station at Brockville, Ont. ; a third at Cowansville, P. Q., and a fourth at St. Hyacinth, P. Q. The



HON. J. W. LONGLEY. President Halifax Exhibition.



E, WOOD. Manager and Secretary Nova Scotia Provincial Exhibition, Halifax,



T. L. HASZARD. President Prince Edward Island Exhibition, Charlottetown.

GARDEN AND ORCHARD.

Fall Planting of Strawberries.

Replying to your enquiry, "What do you think of planting strawberries in the latter part of August and September, and under what conditions may success be looked for "A" I can best reply by giving my personal experience. In the beginning of 1900, I bought a piece of ground that was in meadow, and the hay, mixed clover and timothy, was taken in about the 15th of July, our seasons being somewhat later here in Western Ontario. A splendid growth of clover followed, and about August 10th this was turned under on about half an acre, and lightly harrowed. On Sept. 1st this was well disk harrowed, and then lightly to smooth it. I then set out 3,500 plants on the ground thus prepared, selecting robust young stock of Greenvilles, Haverlands, Bubachs, Cyclones, Crescents and Splendids. The weather was favorable to growth, enough rain to make watering unnecessary, and by the close of fall I had well-grown plants with double or triple sets of runners. A good deal of weeding had to be done in the meantime, as weed seeds germinated as well, but the rows were kept clean, and a mulch of clean wheat straw given late in fall.

The following season, I took \$60 worth of strawberries off this half acre, sold 15,000 plants, and between the rows planted currant and raspberry bushes, which throve immensely. This season the strawberry crop was light in this section, but I took about 20 crates, beside 4,000 plants set out alongside of 3,000 I planted last fall, together with a few quarts of currants and a good crop of raspberries. I am now taking the the strawberries all out from amongst the bushes and utilizing the young plants for a fresh planting. I have found that fall planting gives you a crop the first season and a full crop the second, whereas spring planting gives no crop the first season and a full and medium crop the next two seasons. In other words, the fall planting has with me saved a season's time. This spring I planted an acre of strawberries on land full of

THE FARMER'S ADVOCATE.

couch grass, and by constant use of the hoe and horse hoe have blotted it out of existence, so that an inspection this morning-a good close one. too-failed to find a single specimen of this troublesome weed. Between my rows of strawberries I have a crop of carrots and turnips, sown about the 5th of July, both making great promise of a good crop. The tops of these I use as a mulch for my strawberries, and by this means will rob the plants of but little. I did not expect to get rid of the couch grass so well by turnip-sowing time, but twice hoeing them has done the trick, and my plants have now a clean field to themselves.

I do not need to draw conclusions, I can leave that to the reader, but I favor fall planting every time, if done early enough to give the plants a good start before the heavy frosts, only care must be taken that the plants used have plenty of white roots, as these are the new plants and not ones whose usefulness has been exhausted. As a general thing, I have found that the plants supplied by nurseries in the spring are a miserable lot, and have had poor success with them; where as, by getting my plants in the fall 1 have had better plants and better success.

C. K. GRIGG. Renfrew Co., Ont.

Some Experiments with Early Potatoes.

In these days of experimental farms and numberless varieties of the products of the field and garden, experiments by the private gardener are not always considered of much account. Still, localities differ, seeds differ, and many other things combine to make sometimes the most claborate and painstaking experiments of little use and advantage. I propose to give a few results that have come from experimenting with potatoes, in variety, earliness and methods of forwarding and culture. So much has been published along this line in recent years that perhaps what I shall tell may not be entirely new to some of my readers, but coming from one who has had considerable experience and success with this important crop, may make this account interesting and profitable to many. Several ways of forcing potatoes for earliness are employed. I have used and practiced the sod plan, the box of sand, the manure sprouting of the seed and transplanting from a hot-bed. The plan of inserting the seed in a piece of sod and after it has started to grow setting it out, has some disadvantages as well as advantages. The potato requires light, which is not easily obtained in most cellars ; consequently, the shoots are very pale and spindly. It also requires a certain amount of heat to give the plant a good start. Still, the advantage of the plants being little disturbed when set out compensates in a great measure for these disadvantages, and I have found it a very good plan, which, however, on account of lack of space in most cellars, cannot well be practiced on a large scale. The hotbed plan of forcing has the great advantage of exposure to light and bottom heat, but is rather limited in its sphere of and set out with plenty of ground attached to and one cent for each additional [two]ounces or the roots, like tomato plants, it is the best plan fraction thereof. Any letters intended for publifor early potatoes. The hotbed, or, more prop-erly, cold frame, does not require much bottom that would be required under one sash for to- letter intended for publication can be sent for less matoes, will give sufficient heat for two sashes of than two cents. potatoes. To have a few potatoes very early for family use, this is the best plan of all, and I have had good results from the practice of this method. The manure-sprouting system, that of putting the seed potatoes in fermenting manure. has much to commend it, its worst fault being that the sprouts, being rapidly started, are very delicate and slender and liable to be broken in cutting and planting the seed. The sand-sprouting system or method is more generally used than any other, as it is not so limited in its operation and can be more easily carried out than the previous methods. A barrel with ho'es bored into it all around, in order to let the air circulate, is best. In the bottom place a layer of sand or dry earth, then a layer of potatoes, one deep; next a layer of sand, and so on till the barrel is full. I then stand the barrel near a stove or furnace and every day or so give it a turn around so that the warm air will gain entrance to every part of the barrel and promote the sprouting of the seed. When the potatoes are well sprouted, the sprouts should be strong and thick. I then cut the seed, and carefully placing them in a shallow box so as not to break or damage the sprouts, I take them to the prepared ground and set them in the drills, carefully covering them with a hoe. For a small garden, shallow boxes are best to sprout the seed, as they can grow larger before setting out and the sprouts are much stronger. After the seed is planted and beginning to show above ground, I



641

C. R. SMALLWOOD. Secretary Prince Edward Island Industrial Exhibition, Charlottetown.

go over the patch with a steel garden rake and break the crust and mellow the ground around This shallow culture, besides keeping down weeds, helps hold both heat and moisture, which are so essential in forwarding any crop, empe-cially early potatoes. This cultivation, if kept up till the plants are in bud, is much superior to hilling and far less laborious. I do not find hilling to be of much advantage. Low ridging, so as to keep the stocks and tubers from being exposed to the sun, is more important and will result in a much earlier and better crop.

If the first bugs are picked off and destroyed, not much trouble will result, but an application of Paris green is the mainstay of the successful potato-grower. The best fertilizer for early potatoes I find to be, on heavy black soil, wood ashes or phosphate; on light soil, hen manure or well-rotted barn manure. Commercial fertilizers give best results on heavy soils. Varieties have got to be so numerous lately that their merits are rather confusing. The best way is to depend on the older, well-tried sorts for a main crop and plant several rows of newer varieties for comparison. I have gained much information as to the character of varieties, and also pleasure from do-ing so. I think that Bliss Triumph on light soil and Early Ohio or Irish Cobbler on heavy ground will give good satisfaction. the best of the varietics tried the past summer. They are much earlier than the Hebrons or Rose sorts and give equally as good a yield. EDGAR MACKINLAY.

Halifax Co., N. S.

The attention of all contributors of letters or articles for publication in the "Farmer's Advocate" is directed to the fact that the former one-cent rate on such has been raised to two cents for four ounces cation weighing over one ounce must not be sealed, and must not contain any other correspondence. No

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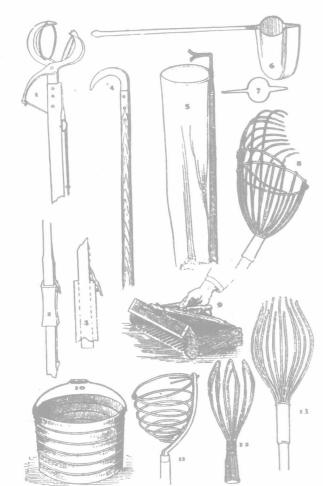


N. T. DUSSAULT. President Sherbrooke, Quebec, Fair.



WH. TOMLINSON. Secretary Sherbrooke, Quebec, Fair,

642



FRUIT-PICKING CONTRIVANCES.

Picking, Packing and Marketing of Tree Fruits.

The harvesting of the early apple and peach crop is already well under way, and a few suggestions as to the proper methods of handling these larger fruits may not be amiss at this season. The first point is to pick the fruit at the proper time.

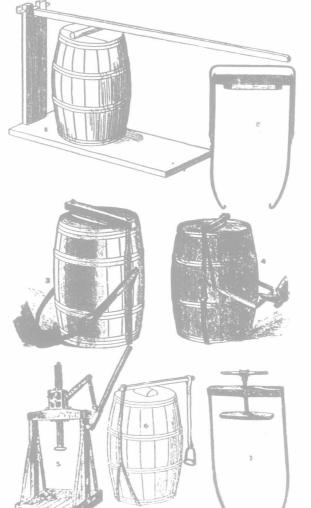
Plums intended for shipment may be picked as soon as well colored and before showing any tendency to soften. The Japanese varieties may, as a rule, be harvested earlier than the other kinds. It is advisable to pick this fruit directly into the baskets in which it is to be shipped, at a time when the fruit is quite dry; pick by the stem so as to disturb the bloom as little as possible. Pears, specially those for export, also require harvesting when still quite green. A variety such as Clapp's Favorite, if left on the tree till soft, will be found to have rotted at the core, while if picked as soon as it has attained full size, and ripened in a cool, dark place indoors, the same fruit will be more delicious and juicy, and yet firm throughout. The usual advice given by prominent fruit-growers is to pick when on turning the pear upward its stem parts readily from the branch to which it is attached.

Peaches should be full-grown, and of good color. They require more careful handling the pear, and do not stand long distance shipments as ordinarily packed. Apples for export are picked when full size and partly colored, while the early apples, or, in fact, all that are to be placed directly upon the home market, are allowed to attain full color and attractiveness. This latter point applies to all fruits to the extent that such as are to be disposed of at once in a near market should be allowed to remain on the trees until they are at their best in both flavor and color. In picking, remember that bruising the fruit spoils its keeping qualities; exposure to the sun hastens its ripening, while cooling soon after gathering tends to retard ripening. For the operations in the orchard many special appliances have been devised. A swinghandlod basket, linod with carpet or other soft thick material, will be a great convenience to the apple picker. Many growers use for this purpose a grain sack provided with a hoop or triangle to to keep the top open, and a strap to support the bag from the shoulder. Ordinary, strong, light stepladders are the best for general use. Another necessity in an orchard of any size is a low, broad-tired wagon. with wide projecting plat-form, and a front truck which will allow the wagon being turned in its own length. For packing in the field, portable sorting tables can be easily made, a convenient size being three feet in width, from six to twelve feet in length, with sixinch sides. The bottom is formed of half-round slats, one by two inches, and one inch apart. with an apron at the lower end to prevent bruising of the apples as they pass into the barrel. Most of the sorting, however, is now done in

THE FARMER'S ADVOCATE.

special packing houses, to which the fruit is hauled as soon as picked. Any cool, light shed, or portion of the barn, may be utilized to advantage for this purpose.

In the packing house, the fruit is graded into two good grades and the culls; some careful shippers make even four grades. This process of grading is absolutely necessary to success. A buyer, seeing an ill-assorted lot of fruit, naturally pays a price corresponding to the smallest specimens in the package; while if the fruit is uniform in size and well packed, the package is pleasing to the eye, and commands a fancy price. All the work should be done by hand. peaches, pears and fancy dessert apples for home markets, each layer is placed in the baskets separately, the top being faced with the fruit all one way, generally with the cheek up. For export the best shippers are now using compartment cases for extra fine apples and pears, often wrapping each fruit in waxed paper, with brown paper outside. Others simply use the cases without partitions or wrapping. However, the barrel is still the standard package for the foreign market. The apples are faced for two or three layers, top and bottom, with stems out. the center being filled in fruit of the same grade, and carefully shaken down as each basket is added. With the softer varieties, the barrel is filled about an inch too full, and pressed down that much when headed up. This prevents the fruit becoming slack or loose in the barrel during



FOUNDED 1866

APIARY.

Fall Feeding.

By the time the honey harvest closes, all the colonies ought to be strong in numbers, and in favorable seasons their aggregate resources should be such that when an equal division is made there will be enough food for all. If some have more than others less than they need, an equitable division may usually be effected in movable frame hives. Such an agrarian procedure would soon overthrow human society; but bees thus helped will not spend the next season in idleness; nor will those deprived of their surplus limit their gatherings to a bare competency. Before the heavy frosts all feeding required for wintering bees should be carefully attended to. It is also desirable that this work, when cace begun, proceed as rapidly as possible, as the bees are so excited by it that they consume more food than they otherwise would.

THE HONEY-BET.

The Honey Crop.

A good deal of speculation is being indulged in by beekeepers and commission men in the United States concerning the extent of this year's honey crop. From the general trend of the estimates which are being made, it would appear that a light crop is to be harvested, but not so much below the average as is anticipated in Canada. The weather in many parts of the States was more favorable for gathering honey than in this country, and as a result our apiarist cousins will probably have more honey to sell than we. Should this be the case, however, the supply on this side the line is pretty sure to set the price in its own market, as the duty on American honey or any substitute thereof is at present 3 cents per pound.

Don't Store Honey in the Cellar.

This is the advice given by the Rocky Mountain Bee Journal, in a recent issue. Good as that counsel may be in one of the driest States in the Union, it is still more true in Canada, where cellar walls are usually damp. Not that beekeepers are likely to make any mistake in this matter, but the average consumer is nearly sure to think the cellar a desirable storehouse for any which is kept in stock and in this way its flavor is almost certain to become impaired.

Sweet Clover.

The Globe, of Toronto, and a number of local newspapers have organized a crusade against sweet clover or melilot, the familiar and fragrant roadside plant. While, in a sense, it is a weed, it can hardly be designated a very dangerous one. Besides this, though not equal to white clover, it is prized by apiarists as a honey producer and they are not likely to take kindly to any attempt at its extermination.



the long voyage across the ocean. The firmer kinds of apples do not require quite so much of this pressure as do the softer kinds.

Use only the neatest of packages and the biggest of your fruit for fancy prices. At all times, send out only the best, and put your own brand on every piece. Keep in close touch with the commission men, and ship only as they advise. Be honest in all your methods. Your name will soon create a demand for your product, for it has been well said, "fruit well grown and well packed is one's best business card.

P. W. HODGETTS. Wellington Co., Ont.

Conditions of Fruit Trade.

Alex. McNeill, Dominion Fruit Inspector, Mr. has just returned from inspecting the fruit districts in Western Ontario. There is an enormous crop cf peaches, but there will be very few exported, owing to the fact that the cold storage facilities are not just what they should be. To put the matter in a nutshell, there is a deadlock in the fruit industry. The steamship companies do not care to fit up their steamers when they are not sure of getting the fruit to carry, and on the other hand the growers are backward about planting trees and waiting seven or eight years for them to bear, and at the end of that time not to have any assurance that they will be provided with suitable cold storage facilities.

Mr. E. D. Smith, of Winona, is shipping three carloads of early apples to Manchester.



ORCHARD LADDERS.

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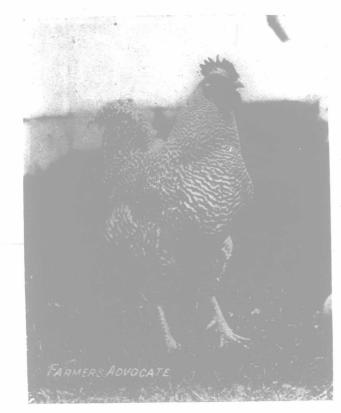


FIG 1.-GOOD FEEDING TYPE.

POULTRY.

Good and Bad Types of Market Fowls. To the Editor "Farmer's Advocate":

Sir.-Since Canada started to export dressed poultry to England, the prices have risen rapidly. from twenty-five to fity per cent. more than they were some four years ago. Farmers are now being paid for their poultry according to weight, the result being we have had a great demand for large birds. 'Are these large, overgrown specimens the best class to grow ? Are they as profitable as the medium-sized breed? Having carefully observed and noted birds, alive and dressed, of the various types of the same breed, 1 have been very much impressed with the lack of unformity of the product, and, in many instances, the very poor quality of the dressed stock. True, we have made great strides in our dressed poultry, and what was considered prime stock five years ago is now only ordinary. Yet, with all the work that has been done by the Ontario and Dominion Governments, we have still great quantities of birds marketed in poor flesh.

In looking over dressed poultry in some of the exporters' shops. I have often thought how easily it would be to improve the appearance of much of the ordinary poultry, and some of that which is especially fattened, only to a lesser degree, if the birds had been bred to a proper type. I have spent much time in carefully examining different types of birds, alive and dressed, also, noting the feeding capacity of some types of birds, although regarding this latter point, it would take years to arrive at any definite conclusions.

THE FARMER'S ADVOCATE.

One of the most important points is constitution. This may have no actual market value, but it certainly has much to do with the bird's ability to grow and put on flesh. What we want is a good feeder and an economical producer. Generally, a bird with a short, stout, well-curved beak, a broad head, not too long, and a lright. clear eye, will have plenty of constitution. And furthermore, I have noticed that when a bird has a long narrow beak, a thin, long comb and head, and an eye somewhat sumken in the head, it is lacking in constitution It has a narrow, long body, and in many cases legs which are long, and upon which the fowls seldom stand straight. There are some exceptions to these points ; yet, upon the average, if a bird has a good head, the chances are favorable for a good body, and if a poor head, the opposite may be said. I have frequently noticed in rose-comb breeds, such as Wyandottes, that you seldom see a good-shaped one that has a long, narrow comb.

The neck should be moderately short and stout, indicating vigor. The breast is the most important point in a market chicken. It should be broad, moderately deep, and if fairly long it will present a fine appearance and appear wellfleshed. It is quite possible that a broad, deep breast will carry more meat than a moderately deep breast of the same width, yet there is no doubt but that the latter will present much the better appearance, and thereby sell quicker and at a higher price in the market.

When considering the length of breast, we must try and get it to come well forward (see Fig. 1), and not cut off at an angle, as seen in Fig. 2. The body in general should present the appearance of an oblong when the head, neck and tail are removed. We frequently see birds that are very flat in front and cut up behind. This class of chicken gives a very short breast, and if it happens to be deep, you will have, when dressed, about as poor a looking chicken as one could wish to see, there being a lack of width and length of breast, with excessive depth. In Fig. 2 note the very flat breast, the length of back, the long neck and head, the narrow comb, the sunken eye, and the length of legs. The breast comes iairly well back, but not well forward. In Fig. 1 the bill is short and stout. but not as well curved as I would like. Note the breadth of head, the prominence and brightness of the eye, the short, stout neck, the great width of the breast, the fullness caused largely by the breast-bone extending well forward, the short, stout legs, that are straight under the body, and the width between the legs. There is an expression about this chicken that impresses one as being the essence of vigor

The back should be broad to give lung and heart capacity, and, further, this width should extend well back to the tail-head. Avoid the wedge-shaped back as seen in some fowls that have great width at the shoulders and taper rapidly towards the tail-head.

It is much easier to get well-shaped market females than it is to get good cockerels. Our market is demanding a five-pound bird when Farmers have gone to raising big chickdressed. ens, and are asking for large, overgrown cockerels for breeders, and, further, birds that have excessive depth. The result is, we get dressed chickens weighing four to five pounds each, that have

FIG 2.-POOR FEEDING TYPE.

immense, high breast-bones and very long legs. These are not attractive to the buyers, and sell at less price per pound than plumper birds. For example, if given two birds of the same width of breast, one is one and a half inches deeper in the breast than the other, the result will be, the one bird looks plump and sells readily, the other lacks plumpness and sells slow. This can be bred out by using such males as Fig. 1. W. R. GRAHAM.

Poultry Dept., O. A. C.

Keep a Pure-bred Flock.

On the ordinary farm where poultry are kept for utility purposes only, there are several advantages in favor of keeping but one breed, instead of a mixture of several. A flock of pure Wyandotte or Rock hens of any class present a beautifui if not a prosperous appearance in a farmyard. Some people think that pure-bred poultry cost more to breed and give less in return than cross-breds. This is an absurd idea, founded neither on fact nor reason. Where a good strain is selected and carefully bred, a flock may be reared to give returns of the highest order. Money may be made from a pure flock in every way in which those of mixed breeding are known to be useful, and in addition, eggs may be sold for hatching, the best pullets and cockerels for breeding purposes; and the dressed birds for the open market, at a higher rate than the average, because of their uniformity in shape and color of skin. Be careful in deciding what breed is best adapted to your conditions and when you have made a start don't be carried away by fads. For the farmer, Wyandottes, Rocks or Orpingtons are generally considered most suitable. Give this matter some thought and we are satisfied you will consider the suggestion a good one.

643



FOUNDED 1866



HARVESTING IN MANITOBA.

Big Profits in Growing Clover Seed.

Farmers in certain districts of Dufferin County have been making big money from alsike clover seed this season. In Mulmur Township, Jos. Rutledge so.d the product of five acres for \$202, and Wm. Hand received \$700 for the crop of only 13 acres.

Alsike clover, even when allowed to ripen, is not very exhaustive on the land, and when crops such as reported, with the favorable prices of this year, can be obtained, few articles of produce bring more encouraging returns to the farmer.

Japan Buys Horses.

The Government of Japan has had representatives visiting horse-breeding establishments in the United States for the purpose of purchasing stallions suitable for breeding purposes. A number of animals have been selected and will be used to improve the native stock of that country. Japan has been forging ahead rapidly in many lines of late, but her attempt to improve the live stock is a new departure, of which these aggressive people will surely make much.



Oxford Co., Ont.

The cutting of oats was a very trying job this year. The ground was soft, and horses and binder were sinking a little most of the time, and the binder being hard to turn, the horses necks got sore. We found bathing copiously with cold well water, immediately after the harness is taken off, to be a very good cure for sore necks. In one field of oats we made the sheaves much smaller than ordinary, for experiment, and found that they cured and were ready to draw in much quicker than the larger sheaves. The small sheaves I mention are in the barn now, while a field that was cut sooner, but tied in ordinary large sheaves, is still out. On moderately dry land the oats are a heavy crop and will yield pretty well. A neighbor who had both bald and bearded varieties of fall wheat remarked to me that the latter did not grow in the sheaf during the wet weather as did the former. There has not been much threshing done in this vicinity yet, but I understand that the wheat and barley are turning out pretty well. Several of our threshers have got the blower attachment for elevating the straw, instead of the old-style straw carriers, and I understand that it works well and saves at least two men on the straw-stack or more, and is not nearly so dusty for the one who is next to it.

Owing to the excessive wet weather, the root field has been sadly neglected. Much of the corn did not get half the amount of cultivating that it generally does, and very little of it was hoed at all. On the lower lands the crop will not amount to much. Ours has the appearance of a splendid crop of stalks, but Our mangolds I am not sure it will ear well. and turnips are looking splendid, although I am rather afraid that the tops will be better than the roots. Our potatoes grew most luxuriant tops during the wet weather, but are now dying prematurely, and amongst those that we are using, several are found badly affected with rot. When this is the case on our comparatively dry land, I am airaid that those on low, wet soil won't be of much use.

FARM GOSSIP.

Every reader is invited to write something for this department that other farmers ought to know. Do it while you think of it. Put it on a post card if you haven't time to put it in a letter.

The Manitoba Crop.

The editor of the Manitoba and Northwest "Farmer's Advocate" writes us : "From what I have personally seen and have gathered from others, the crop throughout Manitoba is universally good, in some sections extraordinarily heavy and promising a better yield and a more profitable crop than last year, stand strong and heavy, heads long and filling well to the very tops. Along the railway lines one sees a good many inferior crops. On all cold, sour, undrained soils the wet weather injured the crops and the results will be poor, and probably this covers a little more area than we are inclined to let ourselves believe. Up to a very recent date there has been no rust, and I don't think there has been any this week, and now the grain is rapidly getting past the danger point. The crop is, however, from one to two weeks late, according to locality, and there is certainly some danger of frost. There is lots of grain that will not be fit to cut before Sept. 1st, and after Aug. 23rd there is always danger of frost. The last three weeks very favorable, hot and mostly have, however, beer dry. This week, however, nights have been cold. While perfect for making a fine sample of No.1 hard, still it's too late a crop to stand much slow weather. The oat crop seems very free from rust, and generally is not too heavy in straw, and the heads are heavy. Barley is a good crop too. Corn is very late, but coming well now. Potatoes promise well, as do the few roots grown. The hay crop has been of most excellent quality, and I think generally well saved. Harvest help will be needed, if all goes well, in great numbers. It seems almost a certainty that there will be a grain blockade on a larger scale than ever before, but perhaps there is no use howling calamity till it HOME OF WM. DOUGLAS, INDIAN HEAD, N.W.T. comes; it certainly won't make either railroad buy any more engines.

Monthly Cheese Reports.

The patrons of cheese factories should be furnished with monthly statements such as the following, issued by Laurel factory, Dufferin County, Ont. : "Fourth sale of cheese for 1902, June 30th to July 19th, 18 days. Aggregate quantity of milk received, 247,858 lbs.; aggregate quantity of cheese made and sold, 22,210; aggregate value of same, \$2,085.34; price sold at per 1b., 9%c.; average 1bs. milk required to produce one lb. of cheese, 11 1-0; cost of manufacturing cheese, \$233.20; cost of hauling milk, \$205.06; average to patrons per cwt. of milk, (nearly) 67c. J. T. G. Varcoe, Sec.-Treas."

Northwest Butter for Australia.

A carload of butter was last week shipped from the Calgary creamery to Australia, via Vancouver. Owing to the terrible drought, Australia, which in 1901 exported 15,000 tons of butter, is now short and has to buy in Canada.

Big Creamery Company Failure.

The Elgin Creamery Company, which operates 135 creameries throughout Illinois and Wisconsin, has failed. The creditors number 10,000, more than 3,000 being farmers. The American Trust Savings Bank was appointed receiver, and its bonds are fixed at \$500,000.

Breeds of Hogs in Ireland.

The detailed returns of the Department of Agriculture for Ireland show that during last year 1,331 pure-bred boars were kept for service in that country. Of this number, 1,234 were Yorkshire, 89 Berkshire, 5 Suffolk and 5 Tamworth. Grades numbered 432.

Cattle for the West.

Several large herds of cattle are coming into Alberta and Assinibora from the United States. One of 10,000, from Cresswell & May's ranch in New Mexico, and one of 4.500 from Southern | California, will be pastured on Cypress Hill ranches Both have been inspected by Canadian officers.

Several farmers have got a considerable acreage of clover sod plowed for fall wheat. The wet weather has been very favorable for this work.

The pasture has been very good, and the flow of milk was as good in July as in June, and will not, on many farms, be much reduced for August. Our average price for July cheese was 91 cents, and I see other factories are about the same, the average pounds of milk to a pound of cheese being about 11.50. The July ratio is generally higher than either June or August, and the wet weather would naturally tend to raise it.

The grass-fed steers have been shipped, being mostly bought by the dollar, but I think the price per pound would amount to somewhere between five and six cents. Our brood sows are doing very well on the pasture, and have not been fed a mouthful of grain. They have access to the creek and can get a drink or take a mud bath, as they feel inclined. Spring pigs are doing well, although I think so much wet weather was hard on those outside.

Some apple buyers have been around offering \$1 per barrel, and the rise (if any); but I don't think much business has been done. I think apples will be a fair crop, although I am doubtful about the quality.



THE FARMER'S ADVOCATE.

ments.

A new \$10,000 electric-light plant is being installed for the illumination of the Ontario Agricultural College at Guelph, which will be appreciated alike by staff and students. The coal supply will be run over the electric road from the railways in Guelph and dumped in the new coal house.

The stately and beautiful Massey Hall and Library made possible by the \$40,000 bequest from the Massey estate to the Province is now finished and furnished. It is by far the most attractive building connected with the institution, and includes a magnificent auditorium or students' hall, two seminary rooms, six rooms for "fellows," and a fireproof library in three flats, the interior being of iron and glass, with shelving capacity for 75,000 volumes, which is thus far only about onesixth occupied. The walls are of Credit Valley brown stone and pressed red brick with terra cotta ornamentation. Our artist presents a side view of this imposing building, which will be publicly opened with fittling ceremonies in a short time.

A short distance to the south-west, further down the campus from the Massey Hall, stands the new Biological Building, erected by the Province at a cost of some \$30,000-a plainer building than the other, but still presenting a very fine and substantial appearance. The interior woodwork is beautifully finished. This structure will be devoted to biology and physics, and contain the college museum. It is three stories high, 110 x 50 feet; stone foundations; pressed brick walls, with stone sills and slate roof. The first floor will contain the museum ; the second and third, offices, lecture rooms and class rooms.

.....

A new barn has been completed for the Experimental Department, convenient to the plots under the direction of Mr. Zavitz. At the time of the writer's visit, work had not begun on the new judging pavilion nor the Macdonald building.

....

JOTTINGS ABOUT THE COLLEGE. The Farmers' Institute and other excursions brought 30,000 visitors to the College this season.

151

Prof. Harrison, the bacteriologist, has been carry-

Ontario Agricultural College Improve- ing on a series of investigations in roup, diseases of turnips and cauliflowers, "fruity" flavors in cheese, dairy "starters," and what is designated a type of "pneumonia." in hogs. A numerous collection of fowls, rabbits, guinea pigs, etc., are kept for experimenting by inoculation.

. . .

In the Chemical Department, Prof. R. Harcourt has had the basement fitted up in good shape for investigations connected with dairying, several lines of which are being conducted, such as relate to the keeping qualities and flavor of butter, the alkali test in cheesemaking, and an inquiry into the by-products of various mill feeds, some 80 samples of which have been collected.

Prof. Day, the agriculturist, will carry forward this season experiments on the short and long keeping of fattening steers, and the use of roots /and corn silage in feeding.

In the Dairy Department, Prof. Dean has a bunch of first-rate calves of the dairy type, raised on skim milk. He pins his faith to crushed oats as a supplemental in preference to the fancy calf meals tested. Cement floors are strongly recommended for butter and cheese factory make rooms.""The old wooden floor in the dairy cow stable will soon be replaced by a cement floor. For milch cows straw litter should be freely used on cement floors. Temperature in cheese curing is the basis of some valuable work going on in this department.

....

If the horn fly is troublesome, Prof. Dean recommends as sufficient for an effective application on a herd of 25 cows: 1 gallon seal oil, 1 pint coal oil. and 4 tablespoonfuls of crude carbolic acid, applied with a brush.

Mr. C. A. Zavitz, of the Experimental Department, attended the recent Agricultural Graduate School at Columbus, Ohio, where he lectured and took the full course (four weeks, three sessions of two hours daily) in which lectures were delivered by a large staff of the leading agricultural investigators and experimenters in America. About 80 students were in attendance. Owing to the cost of conducting the institution, it will probably only be held every two years hereafter.

. . .

The attendance at the College during the term of

1902-03 is expected to surpass all previous years. Since accommmodation is likely to be taxed at the institution, intending students should make their application in good time. A note to the Principal, Dr. Jas. Mills, will secure the announcement circular for the ensuing year, giving complete information.

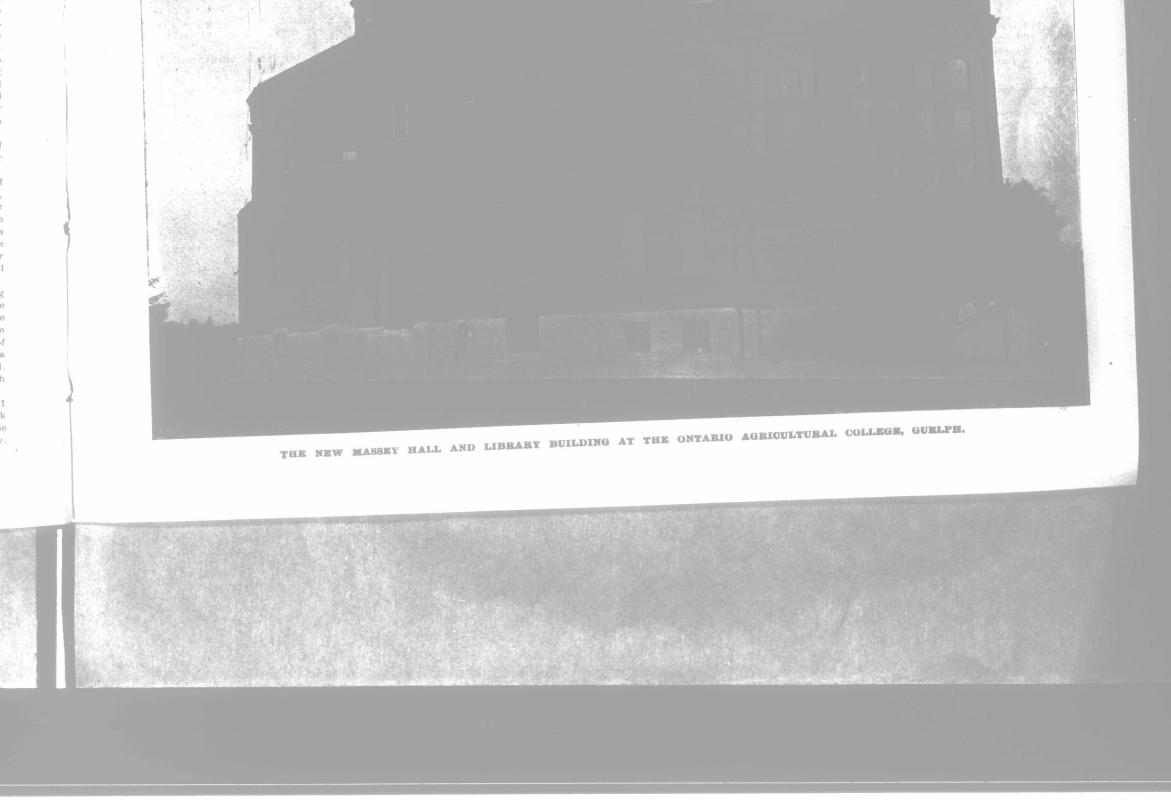
Beware of Sharpers.

From time to time we hear of new devices for robbing honest individuals. Unscrupulous men plot and scheme, giving all their faculties free range for ferreting out new methods of possessing that which does not belong to them. This lamentable fact is one which cannot be too publicly brought before the citizens of our land. The late Whitechurch affair shows the necessity for this. Numbers of our species, fiendlike in purpose, although human in form, devote their full time and ability in trying to find new avenues whereby they can successfully reach and lay hold of the rightful property of others. Although the laws of our land provide for the punishment of all such when caught, yet many of these perpetrators run at large for years, and often, even when overtaken by justice, the hard-earned cash which required years of thought and labor to accumulate has been squandered, and although the rogue receives perhaps the full punishment of the law, yet the innocent loser has not been recompensed. This being true, we feel it our duty to sound a warning note; to try and indelibly stamp into the memory of every reader the great need for caution, hoping thus to securely plant into the innermost recesses of a large number a watchful disposition that may at all times prove a safe guide while making bargains or signing notes. Never do these things in uncommon, novel ways. If the dealer is not satisfied with ordinary business rules, beware of him ; if he tries argument or persuasion to induce the usage of his methods, have nothing to do with him. You can depend that if his dealings are just and honorable, he will be satisfied with common everyday methods.

The Western Wheat Crop.

As we go to press reports from Manitoba and the N.-W. T. indicate continued fine weather and harvesting in full swing. Manitoba now expects a 30-bushelper-acre yield, or a total of 60,000,000 bushels, and the Territories 17,500,000-total 77,500,000 of wheat, with correspondingly good yields of oats and barley. Elevators and railways are likely to be taxed beyond their utmost capacity this fall. Farm help is at a premium.





Increasing Exports of Canadian Live

Stock.

Canadian Manufacturers in Session.

'The Canadian Manufacturers' Association received a cordial welcome at their annual covention, held last month at Halifax. The membership of this influential organization has grown from 825 in 1901 to 1,021 in 1902. The Association was officially welcomed by the Hon. A. G. Jones, Lieutenant-Governor, after which the President, Robt. Murray, delivered his annual address.

Following the report of the Tariff Committee, Mr. W. K. McNaught introduced the following resolution, seconded by Mr. Geo. E. Drunnond, which was unanimously carried : "That in the opinion of this association, the changed conditions which now obtain in Canada demand the immediate and thorough revision of the tariff, upon lines which will more effectually transfer to the workshops of our Dominion the manufacture of many of the goods which we now import from other countries. That in any such revision the interests of all sections of the community, whether of agriculture, mining, fishing or manufacturing, should be fully considered, with a view not only to the preservation, but to the further development of all these great natural industries. While such a tariff would be primarily framed for Canadian interests, it should, nevertheless, give a substantial preference to the mother country, and also to any other part of the British Empire with which reciprocal preferential trade can be arranged, to our mutual advantage, recognizing always that under any conditions the minimum tariff must afford adequate protection to all Canadian producers."

Mr. E, B. Eddy, of Hull, proposed a heavy export duty on pulp-wood, which was being drained to feed the 1,100 paper mills of the United States, causing a loss of \$3,000,000 a year to Canada. Sixty-five per cent. of the paper used in the States was from Canadian poplar, spruce, balsam, etc. To stop the exportation and require its manufacture in Canada would increase the population between Nova Scotia and Lake of the Woods to the extent of 6,000,000 persons.

Another report called the attention of the Association to the western part of the Dominion. So great are its possibilities and so much are the manufactured goods of the United States in favor at the present time, that it is absolutely necessary for the eastern manufacturer to lose no opportunity to place his goods before the Northwest farmer, or Canadians will to a great extent be driven from the market. United States manufacturers are constantly taking advantage of all the best exhibitions to create a demand for their goods in Canada, and Canadian firms should place their manufactures as prominently as possible before the people, especially in the West.

A resolution was adopted in favor of expert commercial representatives to push Canadian trade in various parts of the world, and for spreading commercial intelligence regarding Canada. Better postal facilities within the Empire were also urged.

It was proposed that the next annual session be held in Winnipeg.

Western Fair Prospects Bright.

Probably the largest entry of high-class exhibits ever received for the Western Fair, at London, Ont., Sept. 12 to 20, assures the success of that popular exhibition for 1902. Secretary Nelles advises us that space will be at a premium. There will be an immense display of live stock, and the judging, buttermaking and other competitions will awaken great interest and enthusiasm. Special rings are to be provided for judging all the horses except such as the speeding class The management call of our readers, elsewhere in this issue of the "Farmer's Advocate," to the superb list of attractions offered for the entertainment of the people. There will also be music and fireworks galore. Every indication now points to the largest gathering of sight-seers ever assembled in London.

During the year ending June 30th, 1902, Canada exported living animals valued in the aggregate at \$13,739,113. Of this sum, \$10,704,875 went to Great Britain, \$2,168,349 to the United States, and \$865,-889 to other countries. The mother country, therefore, took from us nearly five times as much live stock as did the United States. Last year was a recordbreaker in regard to exports of live animals, being \$1,537,518 ahead of the best year ever previously experienced. Our export of horned cattle reached its highest value last year, being \$10,633,819, or \$1,599,257 in excess of 1901 and \$1,891,329 more than in 1891, when cattle to the value of \$8,722,499

were shipped abroad. Great Britain was the market



A RUSTIC GATE.

for \$9,742,738 worth of Canadian cattle, being the largest amount for this class of stock she ever took from us in any one year. To the United States we last year sent \$787,871 worth of cattle, a decrease of \$103,469. Of horses the total export was \$1,457,173, or \$548,900 more than for the previous year. Of this number, \$434,755 went to Great Britain, \$345,448 to the United States, and \$676,970 to other countries. The latter expression probably means South Africa, for a large number of Canadian horses were shipped there on account of the war. Our total export of Canadian sheep amounted to \$1,483,526, showing a falling off of \$142,176 compared with the previous The reduction was in the number sent to the vear. United States and other countries. To the former we shipped \$908,892, as against \$1,158,069 in 1901. Great Britain received from us \$525,336 worth of sheep, or \$90,000 worth more than for the year previous.

French Sugar Bounties.

Improvements in Western Cattle Market, Toronto.

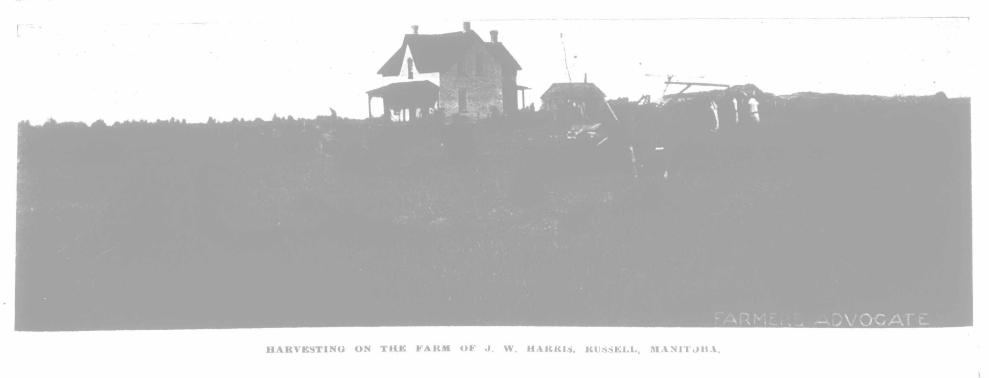
Since the new live-stock yards were opened at Toronto Junction, the citizens of Toronto have been awakening to the requirements of the trade and are now putting forth strenuous efforts to secure patronage for the old yards by making certain alterations calculated to improve the heretofore inadequate accommodation, hoping thereby to retain a franchise which has brought no less than \$76,000 to the city treasury in the last six years.

At the completion of the changes which have recently been made, Commissioner Coatsworth took advantage of the opportunity to invite the mayor. aldermen and a number of citizens to inspect the yards, after which a banquet was held. In the course of the remarks which followed it was pointed out that the present Western market began in a small way at the foot of Jarvis street, from where it was removed to its present situation some twenty-eight years ago, the promoters then believing that the new accommodation would be sufficient for at least a half century. At that time the market was opened with twenty cattle pens and 300 feet of railway platform. Never more than 10 or 15 cars were unloaded daily, and the export trade was in its infancy. Now there are 140 cattle pens, 75 sheep pens and 26 receiving pens, with 1,162 feet shipping platform and accommodation for 26 cars to unload at once on the north, or G.T.R., track, while on the south, or C.P.R., side, called the annexes, there are 623 feet of shipping platform, 75 cattle pens, 400 tie-ups, or feeding stalls, and conveniences for 100 horses. One speaker believed the time was not far distant when stalls would have to be provided for at least 1,500 cattle, so that sellers could feed and rest their stock or await a more favorable market. The present situation, as is well known, affords little opportunity for enlarging the market sufficiently to meet the demands of the growing trade in live stock. In view of this, the Commissioner proposed that Stanley Park, from King street to Wellington Avenue, be taken in, and declared that if such were given him he would cover it with pens before winter. One enthusiastic alderman stated that the number of cattle to be marketed next year would be three times that of 1902, and made the assertion that business men in the United States were looking to Canada for their supply of cattle. The probability of the embargo being removed from Canadian cattle entering Great Britain, and the advantages accruing therefrom, were also mentioned, and a strong appeal to the citizens to stand out for improving that part of their property from which a rich revenue had heretofore been derived.

Crops in Ottawa District.

From all accounts the crops in the counties surrounding Ottawa this season rival those of Manitoba. Records of a quarter of a century have been broken, and the only difficulty the farmers seem to have is in the harvesting. Barley, for instance, is so heavy in some districts that the reaper has had to be replaced by the mower, and part of the work done by hand. The hay crop, from all accounts, has been saved in good condition. Wheat, wherever planted, is a splendid crop. It flourishes on high land which in former years saw it stunted and burned before it reached maturity. Only in isolated sections did the heavy wind and rain storms damage the grain. Oats present a banner crop this season and some farmers boast of a yield of fifty bushels to the acre. Corn was a slow grower, owing to the cold, wet weather. The warm sun of the past few days is bringing it along nicely, however. The root crop promises to be a good one. From different France gives the following sugar bounties for the districts comes word of potato rot. The early and late apples will all be plentiful, the season not having been marred in the early stages by any severe gales. The large crops have necessitated larger barns, and the local lumbermen are very busy filling orders for building material.

year 1902-03. One franc 11 centimes to 1 franc 25 centimes per quintal (2201 pounds) on raw sugar, according to standard ; 1 franc 43 centimes per quintal on crystallized sugar, and 1 franc 27 centimes per quintal on refined sugar.



THE COSY MANITORA HOME OF ROBERT HUME, SOURIS.

SEPTEMBER 1, 1902

Articles of incorporation have been filed at Jersey City by which what is styled the International Harvester Company has been organized, under the laws of New Jersey, with a capital stock of \$120,000,000, to manufacture and sell harvesting machinery. It has purchased the property and business of the following manufacturers : The McCormick Harvesting Machinery Company, Deering Harvester Company, Plano Manufacturing Company, Warder, Buchnell & Glessner Com-Pany (Champion), Milwaukee Harvesting Company. Of its assets, \$80,000,000 are in cash working capital. The company will require no financing, and there will be no offer of its stock to the public, all the cash required having been provided by its stockholders. The reason for this combination or trust is said to be the advance in the price of raw materials and also in the cost of distribution. These were such as to necessitate either a further advance in the price of machinery to the farmer or greater economy in the manufacture and distribution, which the combination is designed to accomplish. The officers of the company are : President, Cyrus H. McCormick ; chairman executive committee, Chas. Deering; chairman finance committee, Geo. W. Perkins; vice-presidents, Harold F. McCormick, Jas. Deering, Wm. H. Jones, John J. Glessner; secretary and treasurer, Richard F. Howe. Board of Directors-Cyrus Bentley, Paul D. Cravat, Wm. Deering, Chas Jas. Deering, L. H. Gary, John J. Glessner Richard F. Howe, Abram M. Hyatt, Wm. H. Jones, Cyrus H. McCormick, Harold F. McCormick, Stanley McCormick, Elleridge M. Fowler, Geo. W. Perkins, Norman B. Ream, Chas. Steele, and Leslie D. Ward. It is said the annual output of these five large concerns amounts to over 700,000 machines, in the manufacture of which 20,000 men are employed. The Deering Company now have a factory almost completed at Hamilton, Ont. This will also come under the direction of the big concern, and the competition which it will likely create with the Canadian manufacture makes the situation one of great moment.

U. S. Harvester Machinery Combination. and standing up well; "Prosperity," a bald red wheat, yielding from 30 to 60 bushels per acre, and a good milling variety; " Mogul," a bald white wheat. direct cross between Diehl and Mediterranean, free from rust and a heavy yielder; "Cap Sheaf," 8. bearded wheat with red chaff, grain a rich white, adapted to poor sandy soil, but will stand up and yield big on heavy land. It originated from a cross between Martin's Amber and Fultz. Reports from 100 farmers show an average of 45 bushels per acre.

Exhibition Dates. CANADA

CANADA.		
Sharbrooke Que Aug.	30 to Se	pt. 6
Sherbrooke, Que Aug.	30 to	° 6
St. John, N. B	1 10	13
	9 to	" 11
TT MART N S	10 10	18
	12 10	·· 20
	16 and	.17
	16 ang	17
Matalfo	16 and	1.6
Gualph	16 to	10
Owen Sound	16 to	" 18 " 18
Tamilton	16 10	10
Stavner	17 and	18
Bowmanville	17 and 18 and	
Eldon	18 and 18 to	
Omillio	22 to	24
Richmond	23 and	24
Drumbo	23 and	24
Cayuga	23 and	24
Daielev	23 to	25
Prescott	23 to	** 25
Aylmer.	23 to	25
NOW HIGH BODY	23 to	** 26
Collingwood	23 to	** 26
	24 and	·· 25
	24 to	20
Strathrov	24 to	20
Woodstock	25 and	·· 26 ·· 26
Paris	25 and	·· 26
Milverton	25 and 25 to	27
Lindsav	25 to 29 and	30
Tara		et. 1
FILL and has not	30 to	1
Dolgrove	00 00	
Royal Agr. & Ind., New West-	30 to	
minster, B. C Oct.	2 and	
Beachburg	2 and	·· 3
Brampton.	2 and	
Millbrook	3 and	ss 4
Ottervine	6 and	14 7
Park Hill	6 and	
	7 and	0
Rockton	7 and	8
Blyth.	7 and	8
	7 and	10
Victoria B C. (Provincial)	7 to 9 and	10
Rerlin	17	** 10
Caledonia.	9 and 10 and	. 11
Highgate	14 to	16
Simcoe	15 and	16
Woodbridge Dec		Dec. 12
Ontario Winter Fair. Guelph Dec.	16 to	18
Amherst Winter Fair		

South Peel, Ont.

647

Once again have the fields of grain been laid low, once again does the shrill whistle of the threshing engine arouse the farmer from his drowsy slumber to a sense of duty. It has been said by a recent writer that threshing day on the farm means the same as stock-taking day to the merchant. In many cases this is true. In this district, the account will balance in . the farmer's favor. Wheat is averaging between 36 and 40 bushels. On one farm there was six acres which averaged 57 bushels. Some of the earlier-cut wheat sprouted slightly, but most of the wheat was secured in safety. The favorite varieties in this locality are in the order, named : Dawson's Golden Chaff, Red Clawson, and Genesee Giant. There is another variety, well named "Satisfaction," as it has proven satisfactory last year as well as this. It is a white wheat, and has a good stiff straw. A large amount of wheat will again be sown this fall. The clover is much surer to catch on wheat, and it helps to divide the harvest up better than when all spring crop is sown.

The cows have never known what hunger was this summer. The recent rains have revived the old meadows. Very few have used any supplementary fodder except for stabled cattle.

The public libraries which were started a number. of years ago have been turned into free libraries by a grant from the township and village councils. Perhaps there is no place where reading is more needed and yet more neglected than on the farm. This gives all a chance to become acquainted with the many great authors. We may well take that advice given in a verse which appeared in the "Farmer's Advocate" some years ago :

Some New Fall Wheats.

In addition to information already given in the "Farmer's Advocate" on the subject of winter wheats, the following references will be of interest :

John A. Bruce & Co., Hamilton. Ont., write that. so far as they can learn, the Arcadian has done the rest, though sprouted a little in some cases. For seven years it has made the best average. Clawson Longberry has also done well. Dawson Golden Chaff and Pedigree Genesee Giant are favorites, but sprouted

Wm. Rennie, of Toronto, reports that their now Extra Early Windsor, a bald white wheat, introduced two seasons ago, has done extra well and is considercd one of the best varieties, yielding as high as 51 bushels per acre. Several other new and very promising sorts are described in their fall wheat list just out. They have dropped Michigan Amber and Turkey Red, which were very disappointing

J. A. Simmers, Toronto, reports the following to be the best and their selection for 1902 : "Abundance," a bald white wheat of first quality, yielding

UNITED STATES.

Missouri-Sedalia, MoAug.		to	77 U.D.	23	
Iowa-Des Moines	22	to	4.6	30	
N. Y. State Fair-Syracuse	25	to	6.6	30	
N. Y. State Fair-Sylacuse Sent.	1	to	Sept.	5	
Ohio-Columbus	1	to	6.4	6	
Minnesota-Hamline	8	to	4.6	12	
South Dakota-Yankton		to	6.6	13	
Wisconsin-Milwaukee	15		6.6	19	
Indiana-Indianapolis.	22		4.6	26	
Michigan State-Pontlac.	29	to		4	
Thingie State-Springheld				11	
St. Louis Fair, St. Louis, Mo Oct.	6	to			
Kansas City.	20		-	25	
International-ChicagoDec.	. 1	to.	Dec.	6	
International-Onloag of the ter					

' Up, up ! thou bright aspiring youth, Step by step the rounds of truth ; Wake up, wake up, improve thy mind, And leave duil ignorance behind." J. B. R.

0. H. M. S.

BEWILDERED SWINE BREEDERS.

To the Editor "Farmer's Advocate":

Sir,-Would you kindly, through the columns of your influential and widely-read paper, explain to a perplexed subscriber who has been cudgelling his brain in a vain attempt to fathom the mystery contained in an official catalogue, sent I presume (O. H. M. S. free) to every post office in this broad Dominion. It appears to be a gigantic official free advertising effort to boom a Yorkshire breeder whose name and place appear prominently over 50 times in the body of said official catalogue, not mentioning list at back of same, and whose stock has been retired from show-rings by stronger competition. Will the Government officials most interested in this free advertising scheme "O. H. M. S.". kindly explain if he or they propose to extend to the other breeders the same "O. H. M. S." privileges they have so lavishly bestowed on the favored few mentioned in E. W. TUFGAR. official catalogue.

Vice-President N. W. Farmers' Institute Wentworth Co., Ont.

QUESTIONS AND ANSWERS.

648

1st. -Questions asked by bona-fide subscribers to the "Farmer's Advocate" are answered in this department free.

er's A dvocate" are answered in this department free. Snd,—Our purpose is to give help in real difficulties; there fore, we reserve the right to discard enquiries not of general in terest, or which appear to be asked out of mere curiosity. Srd.—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, as a guarantee of good faith, though the name is not necessarily for publication. Ith. In exterinary questions, the sumntoms especially must

Mh.—In veterinary questions, the symptoms especially must fully and clearly stated, otherwise satisfactory replies canbe fully not be given.

Veterinary.

THOROUGHPIN.

A three-year-old colt has a thoroughpin of two months standing. We bandaged and applied cold water, which helped it. We then blistered, but this did no good

2. I have a horse that has warts.

J. B. A. Wellington Co., Ont. Ans .- The treatment you adopted for thoroughpin was correct; either, if continued long enough, will probably effect a cure. I would advise repeated blistering.

2. Any warts with constricted necks can be cut off with a knife; flat ones can be removed by applying butter of antimony once daily with a feather, until they disappear.

J. H. REED, V. S.

ECZEMA.

I drove my nine-year-old mare hard and overheated her before foaling. Now she is covered with small lumps about the size of peas and quite itchy. The colt has two small lumps under each jaw, which were there at birth. W. L. Wentworth Co., Ont.

Ans .-- Your mare has eczema, probably the result of averheating. Wash thoroughly with strong, warm soft-soap suds, applied with a acrubbing brush. Rub until dry, and then apply twice daily a lotion made of 1 oz. each, sugar of lead and sulphate of zinc, to a quart of water. This lotion must be well rubbed through the hair in order to come in contact with the skin. As soon as you wean the colt give her (the mare) a purgative of 8 drs. aloes and 2 drs. ginger, and follow up with 2 oz. Fowler's solution of arsenic twice daily. If the lumps on the colt's jaw are enlarged glands, they will disappear; if a congenital bony maiformation, the only method of removing them is by an operation. You had better have your veterinarian examine them. J. H. REED, V. S.

HEAVES.

About three months ago my five-year-old horse became thick in his wind. He breathes heavy in the morning or when drawing a heavy load. He seldom coughs.

BUFFALO BILL. Huron Co., Ont.

Ans.-From symptoms given, I am afraid your horse has heaves. When the condition is well estlablished, a cure cannot be effected. Benefit will probably result from the following. Take 3 oz. powdered gum opium, 1 oz. digitalis, 6 oz. liquorice root; mix and make into 24 powders; give one night and morning in damp food. Dampen all food taken with lime water. Feed limited quantities of bulky food of first-class quality. J. H. REED, V. S.

INFLUENZA.

My colts, two and three years old, have a cough and discharge from the nostrills. They appear to have difficulty in moving their hind legs when 1 go to turn them out in the morn-J. S. G. ing Elgin Co., Ont. Ans.-Your colts have influenza, which is often associated with soreness of the joints; this accounts for the stiffness mentioned. Rub their throats twice daily for two days with two parts each raw linseed oil and turpentine and one part liquor ammonia Fortier. Feed warm food, as scallded bran or boiled oats, and give 1 dr. quinine to each three times daily. Be very careful to not allow them to get wet or cold. The disease is liable to many complications, so if any serious symptoms occur, call your veter-inarian. J. H. REED, V. S.

mostly all barbed-wire wounds leave a little enlargement. Repeated hand rubbing after the wound has healed will assist absorption.

2. Do not alow the calf anything to eat for 10 or 12 hours; then give 1 oz. oil of turpentine in 1 pt. of sweet milk. Continue to fast for 3

hours. Repeat the treatment in a week. J. H. REED, V. S.

WORMS IN MARE.

Mare, five years old, has long white worms, pointed at each end. She is suckling a foal and A. J. T. safe in foal again. Stormont Co., Ont.

Ans .--- Take 1; ozs. each of powdered sulphate of iron, sulphate of copper and tartar emetic; mix and make into 12 powders. Give a powder every night and morning in damp food, or mixed with 1 pt. cold water as a drench. After the last powder has been given feed only bran for 8 or 10 hours, and then give 11 pts. raw linsed oil, feed only bran for 24 hours longer and give water in small quantities and often.

J. H. REED, V. S.

Miscellaneous.

CEMENT OR FLAGSTONE FOR FLOOR. I want to floor my barn with either stone or cement. I can get stone flags within two miles, about 6 ft. by 4 ft., 3 inchens thick. I would have to draw them, but the quarry man would lay them with cement for 40 cents a square yard. Portland cement costs 63 cents a bag of 80 lbs. Which do you think would be best and cheapest ? The stone flags are a hard limestone, and have been largely used, locally, for house cellars, but so far no one has had experience for barn stables. B. C. Grey Co., Ont.

Ans.-In our observation, flagstones properly laid are fairly durable, but make a rough floor and difficult to keep clean. It could not be called strictly sanitary nor suitable for dairy cows. Cement might cost more, but we would prefer it. Professional cement floor layers, who supply cement and also gravel, quote 9 cents per square yard for stable floor when gravel costs \$5 per cord. Where farmers furnish the gravel and do most of the work, the outlay could be greatly reduced. Gravel is very much cheaper in some districts than \$5 per cord.

MARSH FIRES - BULLS TRESPASSING.

Five years ago, the last of September coming, a fire crossed A's lot, out of a marsh, into B's lot, the marsh being on fire at the time. C started a fire on his own lot which crossed into B's lot. 'The field being mucky, the fires spread and ran down the field about 60 rods, and burned a piece of B's fence on the line between A and B. B says A started the fire that burned his fence, and he will not build it.

1. Can B compel A to build the fence, supposing he did start a fire, and let C go, when A can prove that C's fire crossed into the same field ? 2. Can B compel anybody to build the fence

after the lapse of five years ? Can A compel B to build his fence?

3. 4. B has a lot of young scrub bulls running around. If they cross the line into A's property and through A's inside fence to some heifers is there any law for it, or has A to put up with losses till the fence is built? EJ. Carleton Co., Ont.

Ans.-1. We do not think that B is in a position to compel A to build the fence, but he may bring action against A for damages, and that too without suing C as well. 2. We think not. Not without first paying or tendering B a 3. suitable sum of money by way of damages.

TO MAKE CISTERN WATER-TIGHT.

I have built a stone wall at one end of my barn 15 x 20 ft., 10 ft. high, and 2 ft. in thickness, which I purpose to use for a cistern Would you kindly inform me how I can make it J. M. water-tight ?

Chateauguay Co., P. Q.

Ans .--- A cistern built of stone such as described, can easily be made water-tight by plastering woll with cement and sand, in the proportion of one of cement to two or three of the latter, depending upon the strength of the cement. In case the wall has not yet been pointed, cement should be used instead of lime in preparing the mortar. If this can be done, the main plastering will not require to be so heavy as otherwise. The floor of the cistern may be put down similar to ordinary cement floors, except that it need not be more than two inches thick where the bottom is solid. The finishing coat for hoth walls and floor should be a thick wash of cement, applied with a brush, in the same manner as ordinary whitewash. This closes any crevices that remain in the plaster, making the wall quite water-tight.

VARIETY OF GRASS FOR MUCKY LAND.

I have a mucky field and would like to know what kind of grass would be best to seed down. Would you advise me to sow red-top or blue-joint, and how many pounds to the acre, and when would be the best time to seed? H. ALLEN. Russell Co., Ont.

Ans.—An excellent mixture of grass with which to seed a mucky field would be, per acre, as follows: Timothy, 3 lbs.; meadow fescue, red-top and Canadian blue-joint, 6 lbs. each. Red-top and blue-joint alone might be sown at the rate of 12 lbs. each per acre, but would not likely give as good results either for pasture or hay as the former mixture. They might be sown early in September, but if the field be damp a good stand should be secured by sowing in spring as soon as land is workable.

BLADDER CAMPION.

Please give the name of the weed enclosed, and if it be a bad one, tell how to kill it? D. McDOUGALL. Bruce Co., Ont.

Ans.-The weed is bladder campion (Silene inflata). Where it has gained a foothold, it is regarded as a difficult one to eradicate. Being a perennial, it lives over from year to year, and reproduces from the root as well as from seed, of which a single plant ripens many hundred annually. In fields where it has become troublesome, persistent cultivation must be carried on Immediately after harvest, plow lightly and continue cultivation at repeated intervals during the fall, so that the seeds in the ground may be germinated and the roots prevented from producing leaves through which to breathe. The next season use the affected area for corn, rape, roots, or any crop that will admit of regular intertillage. Under no circumstance allow any plants to produce seed. Where this method is carefully followed, the plants will be so scarce the third season that a short time only will be re-

FOUNDED 1866

NASAL GLEET.

My six-year-old mare rattles in the head when she breathes, more so when excited. When warm or drawing heavily, there is a discharge from the nostrils. She is worse in damp, heavy weather. I think the heaves are starting.

Essex Co., Ont. Ans.-The symptoms given indicate nasal gleet. Feed 1 dr. sulphate of copper twice daily in damp food. If she shows symptoms of heaves treat as recommended elsewhere in this depart-J. H. REED, V. S. ment.

BARBED - WIRE WOUND.

Mare received a barbed-wire wound in front of the hock. It is nearly healed, but there is a thickening of the skin.

2. A calf four months old passed, in two sections, a worm six feet long. I think it was a A. McL. tapeworm.

Bruce Co., Ont.

Ans .- The thickening mentioned will doubtless disappear by absorption to a great extent, but

4. Assuming that there is no by-law of the municipality permitting bulls to run at large, B would be responsible for any such damage.

YOUNG DUCKS DYING.

Kindly inform me how to raise ducks. I succeed very well until they begin to feather, when, without any symptoms of disease, the ducklings lay down as if asleep and, without a struggle, die. I fed them on shorts while young, and afterwards gave bran and a teaspoonful of Hess Poultry Food twice a week. Water was always kept convenient. None were ever opened.

Grey Co., Ont.

W. GEDDES.

Ans .- Ducks are usually exceptionally easy to rear. They must, however, be supplied with grit (either gravel or ground-up granite), and also with shade. Sometimes when ducks are running where there is no shade and the sun comes out hot, they will fall over and die, apparently sunstruck. find it necessary to mix the grit in the soft food for the ducks; we generally put in about a teacupful to a gallon of food. It would be better to mix some other grain with the shorts and bran, say equal amounts of shorts, bran, and barley, or This should be moistened with skim milk, corn. or else use a small amount of blood meal or animal meal. These last mentioned foods are necessary to supply the material for the growing feathers. I am of the opinion that your ducks are either starving for the animal food or else have no grit with which to grind the food you are W. R. GRAHAM. giving them.

quired to hand-pull all in sight.

MARKETS.

Chicago Markets.

Chicago, Aug. 27.—Cattle—Good to prime steers, \$8 to \$9; poor to medium, \$4 to \$7.25; stockers and feeders, \$2.50 to \$5.25; cows, \$1.50 to \$5.90; heifers, \$2.50 to \$6; bulls, \$2.25 to \$5.25; Western steers, \$4.50 to \$6. Hogs.—Mixed and butchers', \$7.35 to \$7.90; good to choice heavy, \$7.60 to \$7.95; rough heavy, \$7.25 to \$7.60; light, \$7.35 to \$7.75; bulk of sales at \$7.50 to \$7.75. Sheep.—Good to choice wethers, \$3.50 to \$3.75; fair to choice mixed, \$2.50 to \$3.50; native lambs, \$3.75 to \$6.10.

Buffalo Markets.

East Buffalo, N. Y., Aug. 27.—Cattle – Prime steers, \$8 to \$8,25; fair to choice, \$4.75 to \$7.75; helfers, \$3 to \$6.50; cows, \$3 to \$5; bulls, \$3 to \$4.75; feeders, \$4.25 to \$5; stockers. \$3 to \$4.45; stockers, heifers, \$3 to \$3.75. Veals slow; tops, \$7.75 to \$8; fair to good, \$7 to \$7.50; common to light, \$5.75 to \$6.75. Hogs.—Heavy, \$7.85 to \$7.90; mixed, \$7.75 to \$7.85; Yorkers, \$7.65 to \$7.75; light, do., \$7.50 to \$7.65; pigs, \$7.50 to \$7.60; roughs, \$6 to \$6.50; stags, \$5 to \$5.50; grassers, \$7.30 to \$7.60; Sheep and Lambs.—Top lambs, \$5.75 to \$4; yearlings, \$4 to \$4.50; wethers, \$1 to \$4.25; ewes, \$3 to \$3.50; sheep, top mixed, \$3.50 to \$3.70; fair to good, \$3.25 to \$3.40; culls to common, \$1.75 to \$2.75.

Toronto Live Stock.

Cattle.—Export cattle, choice, cwt., \$5.50 to \$6; do. medium, \$5 to \$5.50; do. cows, per cwt., \$3.50 to \$4; butchers' cattle, picked, \$1.50 to \$5; do. choice, \$4 to \$4.50; do. fair, \$3.50 to \$4; do. common. \$3 to \$3.50; do. bulks, \$2.50 to \$3.25; feeders, short-keep, \$4.75 to \$5.25; do. medium, \$3.50 to \$4.50; stockers, 400 to 800 lbs., \$3 to \$3.60; milch cows, each, \$32 to \$54. Sheep.—Export ewes, \$3.40 to \$3.60; butchers' sheep, each, \$2 to \$3; bucks, per cwt., \$7.25; lambs, \$4 to \$4.50. 4..." Hogs.—Choice, per cwt., \$7.25; light, per cwt., \$7; fat, per cwt., \$7.



"Laden deep with fruity cluster, Then September, ripe and hale; Bees about his basket fluster, Laden deep with fruity cluster. Skies have now a softer lustre, Barns resound to flap of flail."

The Red River Settlement.

SOME REMINISCENCES OF FIFTY YEARS AGO.

After a bishop, in due and fitting sequence, should come an archdeacon; but the especial archdeacon of whom I would take note to day might with some show of reason have been mentioned before his bishop, for he had lived and labored amongst the Indians of the Northwest before Rupert's Land was formed into a diocese, and, consequently, before it had any bishop at all.

One can realize what an immense relef it must have been to good Bishop Anderson to find, ready to greet him on his arrival, such a coadjutor as the Rev. W. Cochrane. Tall and stalwart of frame, big of body as of soul, I can picture the mighty grip with which he grasped the hand of his bishop, and what a strength to him he became from that day forth. In my childhood I had lived in a very conservative corner of conservative Old England, where a butcher was a butcher, a baker was a baker, a candlestickmaker just that and nothing else, and where one looked up to the rector of one's parish as at one who had been originally constructed of more spititual and of less human material than mere ordinary folks or he would never have become a clergyman at all. So it came almost as a shock to all my preconceived notions to learn that the very house in which we were to live, the fine big church of St. Andrews at the Rapids, and much of the building of the smaller church and school at the Indian Settlement, had been either constructed wholly or helped in its building by the Venerable Archdeacon Cochrane himself. And such good work too-much of it standing to this day, even that which remains of the original old St. Cross refusing to own itself a ruin. A grand old man indeed was Archdeacon Cochrane, and the church to-day owes much to the firm spiritual

THE FARMER'S ADVOCATE

foundation laid by him in that long ago of which I speak. How many remain, I wonder, who can recall as I do his rugged features, breaking into a very gust of laughter when the humor of a thing struck him? I have seen the broad smile creep over his lips even as he pounded his little pulpit cushions, when he talked on familiar topics, rather than preached, to his Indians at the Indian Settlement. I can almost hear his voice when, after a positively stern remonstrance against what he considered had been an act of levity which could not be passed over, the comicality of the situation and the overpowering nature of the temptation to use it suddenly took possession of his senses, and his lecture to the delinquent ended with a, "Well, get you away then. I suppose it was in ye and had to come out." There must surely be some who received and can never forget the whole-souled hospitality not only of the Archdeacon, but of Mrs. Cochrane and their family. My early memories always include their familiar faces, all but one of whom have passed into the invisible.

Doctors ?" Well, yes, we had two, and they, as far as I understood it, were almost the only medical men from Red River to the North Pole. Dr. Cowan ranked as an officer of the Hudson's Bay service, but never refused to lend a hand outside his apportioned domain when asked. Kindly natured, florid of complexion, light brown of hair, blue of eyes, large of size, taking life and its duties without unnecessary worry, such was the Doctor Cowan of Upper Fort Garry as 1 re-call him. "Take out your tooth, eh? Well, I'll do my best, but you had better not let me try. I know I shall hurt you horribly. Before I came the people all went to the blacksmith, and I am only a degree better than the blacksmith." And never was a truer word said, for sc-cr-rr-scrunching through my head I have felt, time and time again, as in a nightmare, that terrible, oldfashioned dentist's key of Dr. Cowan's. From that day to this, I positively have never had the courage to face the dentist's chair for any process but that which defers the evil day. Scat-tered in the broad Northwest, are there, I wonder, any members left of the family of our doctor at the Fort?

Perhaps there was no one amongst the old pillars of the past with a name more irrevocably knitted to the very soil of the old Settlement than that of Dr. Bunn. There always must have been Bunns, and there always must be Bunns in the Northwest, for on enquiry I have learnt that even in Winnipeg several of his descendants remain, and that wherever they may be there are traces that in some measure, at any rate, his mantle has fallen upon them. But not altogether. No Bunn who has since followed him could ever fill the unique position in the heads

and hearts of young and old such as was filled by the Dr. Bunn of the old, old days. True, there was a good deal of bitter-sweet about him. One had to get through the rind to find the pleasanter flavor of the kernel. We young folks were, at first, anyway, a little in awe of him, and some of us never quite got over it, but to those who did, it was avident that the little bit of starcasm had a kinder object than just to be disagreeable or merely to be "funny," and his friendship and regard, once won, were a gift worth the prizing. A package of letters in his cramped, old-fashioned handwriting, in his quaint, Johnsonian-like sentences, full of wit and humorous description, were one of my cherished possessions for years, until in the exigencies of travel, and because the thin sheets would hardly any longer hold together, I laid them reverently to rest amongst the ashes of other relics of a past which could have no interest for those who come after me. H. A. B.

649

From Angell's Lessons on Kindness to Animals.

1. Never to stick pins into butterflies and other insects, unless you would like to have somebody stick pins into you.

2. Never to carry poultry with their heads hanging down, unless you would like to be carried in the same way.

3. Never to throw stones at those harmless creatures, the frogs, unless you would like to have stones thrown at you in the same way.

That nearly all snakes are harmless and useful.
 That earthworms are harmless and useful, and

5. That earthworms are narmless and usual, that when you use them in fishing they ought to be killed instantly, before you start, by plunging them in a dish of boiling water.

6. That it is very cruel to keep fish in glass globes,

slowly dying. 7. That it is cruel to keep twitching the reins

while driving. 8. That when your horse is put in a strange stable you should always be sure that he is properly fed and watered, and that his blanket is properly put

on. 9. That you should never ride after a poor-looking horse when you can help it. Always look at the horse and refuse to ride after a docked or poor-looking one, or a horse whose head is tied up by a tight

check-rein. 10. That you should always talk kindly to every

dumb creature. 11. That you should always treat every dumb creature as you would like to be treated yourself if you were in the creature's place.



FOUNDED 1866

Travelling Notes.

In the last sentence of my last Notes, I think 1 promised to tell you something of passing events, all of which are of the most absorbing interest, not only to those who witness them, but to people of all nationalities. To tell you now even of those which come more immediately under my own observation makes it obviously necessary that I should appear to have literally flown from Geneva and perched myself down in the thick of it all, instead of telling you of the places we passed through on our homeward way, so I must leave my account of Cologne, Brussels, Antwerp, etc., until later on, and then, if you are not tired of Mollie and her Continental itineracy, you shall have a detached Note about those places and nothing else.

Before I say anything of the enthusiastic reception to Lord Kitchener, which, through the kindness of Lord Strathcona, I was enabled to witness from one of the grand stands erected upon Constitution Hill, I would like to tell of the gracious sympathy extended by Queen Alexandra, in the midst of her own hour of terrible anxiety, to the relatives of the two ladies who were the unfortunate victims of the catastrophe in Langham Place, one lady being seriously injured, the other (a Canadian, Miss Strathy, granddaughter of Mr. Strathy, formerly of London, Ontario) being killed on the spot.

The facts were brought to the notice of the Queen the same afternoon, and Her Majesty immediately sent the following message to the Middlesox Hospital:

"The Queen is greatly shocked to hear of the sud accident which occurred this afternoon, and wishes a report to be sent at once, giving the condition of the ladies who were injured. Please convey Her Majesty's deep sympathy with the sufferers, and, if possible, express to the relatives of the lady who was killed Her Majesty's distress and sorrow at this lamentable event."

Probably the story connected with this tragic incident has already been given in the Canadian press, for Miss Strathy was well known, not only in London, Ontario, but in Montreal, to which place the sad news was conveyed to her father by cablegram. By what a mere hair-breadth do we sometimes meet or escape calamity ? Her grandmother (82 years of age) and her aunt had gone to the Coronation Bazaar, the great attraction of the day. Instead of accompanying them, the younger lady, with her friend, strolled out into Langham Place to see the decorations, only a few yards off from her hotel, and there met her death. The article in the London paper giving the message of condolence sent by Her Majesty is headed, "The Queen's Sorrow," and it is no new thing for their people to receive from the King or herself a gracious token of their sympathy when affliction overtakes them. Is it a wonder, then, that in the trial which laid low the Sovereign of England, his subjects should have allowed every feeling of dismay and disappointment to be swallowed up in an overwhelming sympathy for their suffering, and of high admiration for the fortitude with which it has been borne? One hears overywhere the very highest praise expressed of the unselfish heroism manifested by Queen Alexandra.

One paper has this to say of Her Majesty as a nurse: "With regard to Her Majesty's capabilities as a murse, one cannot do better than cite the remark of a poor woman whom she tended at Sandringham. 'I never knew any one,' she said, 'who could arrange the pillows for a sick person like the Princess.'

speeches to which the twice victorious conqueror in Africa had given terse and characteristic replies, but from the comments of those around me it was easy to see that it was no mere hysterical outburst of enthusiasm, but honest, deep-seated appreciation of his really noble character and wonderful intellect, which gave strength and volume to the cheers which must have almost deafened him as he went by. Kitchener had not only conquered England's foes, but had purchased for her an honorable peace.

But perhaps of all the welcomes tendered him, none would be quite so sweet to the hero of the hour as that of Queen Alexandra herself, who stepped out upon the balcony of Buckingham Palace and waved her hand in token of greeting. The papers teem with facts regarding Kitchener unanimously recognizing the patience and power of the man in gauging the deoper motives and springs of thought which have been the secret of his thoroughness. His taciturnity and concentration of mind has doubtless had something to do with the not wholly deserved accusation of Lord Kitchener being a woman-hater. "He may be called so," once said Queen Victoria : "All I can say is, he was very nice to me." But another woman told a different tale. She was very beautiful, and, in sympathy with the Boers, had wheedled out of susceptible staff officers and others many a useful bit of information. She tried her wi'es upon Kitchener, and this is what she had to say of him

"I don't believe he is a man," she said. "He is a sphinx. He turned and fixed his cold eyes upon me with a gaze like that of a basilisk, and I felt every moment that if he read my secret he would shoot me without a moment's compunc-



"THE BELLE OF THE INN."



My dear Guests,-

- * The thistle-down floats idly on the air, In unused ways the golden-rod lifts up Her flaming torch. The purple aster bends Above the meadow stream; Summer is gone.
- "Flocking of birds to summer climes,
- Tinting of leaves and cicada's call,
- Winds in the branches making a rhyme,
- And these are the messengers of fall."

Yes, although we may scarcely realize the flight of time, September is already here and summer is gone. So silently and gracefully she slipped away from us, amid a blaze of blossoms, we hardly noticed her departure, but shortening days remind us that autumn's reign has begun.

With September comes the reopening of all the schools, and many merry boys and girls reluctantly leave the sports of holiday-time for the busy school-room, envying their (in their opinion) more fortunate brothers and sisters who have bidden a final adieu to text-book and classroom. These have not, in reality, left school, but have rather been promoted to a higher grade, for life is but one great school, and experience, and sometimes sorrow, is the teacher; the training received in early years may serve to ward off many of the ruder shocks which 's oner or later come to all.

This subject recalls to memory a discussion in which I recently took part. A gentleman, living in the country, remarked that his daughter had passed the High School entrance examination, adding: "After that, I keep my girls at home," I remonstrated, saying he should give his children further education than that. "No," said he, "I don't want to educate my girls to be useless; let them stop at home, learn to do housework and patch trousers. I don't believe in educating my boys too much, either, for then they will not want to stay on the farm."

This is the view expressed by one man, yet I know for a certainty it is entertained by a great number. I maintain that parents owe it to their children to educate them as far as their means will allow-I do not mean that they should necessarily make great sacrifices in order to do soand that those who allow their children to go out to fight life's battles handicapped by a very meagre, possibly no education. have not fulfilled their duty. A young girl need not have useless hands because her brain has been developed, nor will the knowledge of something beyond the 'three R's '' give a boy a distaste for farm life. Do you want to know a great cause for your wanting to leave the farm and seek other means of livelihood ? It is largely because he finds farmers so often laughed at and looked down upon for lack of that education that places the peasant on equal footing with the millionaire, and which their parents, from mistaken motives. withheld from them. An educated, well-read farmer is the peer of the highest professional. and will make himself recognized as such, because education insensibly dignifies all who possess it. If that obtained at school be supplemented by proper home influences, there should be no reason for complaints like the above. Parents, let your children study, let them develop a tasta for good literature, and you will find them imbued with deeper love of nature and of laboring in nature's own workshop-the farm-than ever before; very often the masterpieces of a lover of nature awakens one to a sense of numberless hidden beauties hitherto a sealed book.

"On one occasion the late Czar said, 'I do not know of better nurses than the Queen of Denmark's daughters."

"Queen Alexandra has proved that she merited the eulogium on several important crises in her life. Everyone will recall her weeks of close ministration in her husband's illness in 1871 and how astonished people were that one so frail and delicate as the Queen was at that time should bear the strain without a breakdown.

"Yet again we see the Queen tasting the bitter dregs of the cup of sorrow with characteristic calm when she tended her mother in her last illness. She remained on one occasion by the Que m of Denmark's bedside for fourteen hours at a stretch, and the physician had to exe cile his medical authority before she could be persualled to take even a brief rest."

So no one wonders to learn that in this still greater crisis Queen Alexandra has borne h-rself with a heroism which marks her not only as a noble queen, but as a noble woman, and as a wife whose price is above rubies.

And now for a little bit about Lord Kitchener and the almost blaze of glory with which he was we'comed back—as indeed, he deserved to be—to the land for which he had done so much and which delights to honor him. Of course, I had only my own bird's eye view of the "conquering hero" and the other generals—heroes too—who accompanied him, and I could hear none of the

upon. I never want to see that man or his eyes again."

I have been in very fine company lately, seeing many celebrities, amongst them the King of Basutoland and the Colonial Premiers. Close by me on the stand, watching the procession, were Sir Wilfrid and Lady Laurier, and ever so many Colonial Somebodies whose names and titles I could not catch. I have also been to the big reception given to Colonials by the I ady Mayoress; but I have used up all my space, and so can tell you nothing now of what was a most novel and interesting event in the life of—

MOLLIE.

"The Belle of the Inn."

Oh! those cavaliers of old, with their whispered nothings to charm the ears of the pretty maids of the ions. How intently the girl listens, as if the old, old tale were new to her : and how certain he is that she believes the tale he is telling her ! But rural beauty does not always imply a blind simplicity, and so it may even chance that it is the gay deceiver who is himself deceived. H. A. B.

A minister whose first parish was in the backwoods of the West was called upon to officiate at the wedding of a rather seedy-looking fellow and a blooming young woman. The ceremony was performed in the log-cabin home of the bride's parents. There were many guests present, and a pleasant informative prevailed. When the bridegroom repeated the words, "With all my worldly goods I thee endow," a tall and lank guest innocently observed : "Thar goes Hank's houn' dawg, by gum !"

OUR COMPETITIONS.

The response to Contest XXI. has been small, n uch smaller than I anticipated. We shall have to try to revive the flagging interest by something in the puzzle line soon.

" Lady Clare,"—I cannot give you any information regarding your first question. Pompeii is pronounced faccording to Webster) Pom-pā--yā-

THE HOSTESS.

In le Nook Chats. Pakenham, Ont.

Among the remainiscences of the class of '02 at Yale is the story of a stout and healthy-looking member, who was told by his tutor that "he was better fed than taught." "You teach me; I feed myself," was the retort.

THE QUIET HOUR.

A Great Man.

"We rise by the things that are under feet; By what we have mastered of good or gain ; By the pride deposed, and the passion slain, And the vanquished ills that we hourly meet."

Most people would like to be great, although their ideas of greatness may differ very widely Riis says that the boys belonging to the gangs in the New York slums are ambitious to be ringleaders in crime. The heroes they try to copy are daring criminals, like Tracey. Such an ambition is not very different from the savage idea of measuring a man's greatness by the number of scalps he can show, or the civilized theo.y that a man is great if he has killed a number of people in battle.

However, the ideal of greatness I want to put before you to-day is very different from these Naaman, the Syrian, "was a great man with his master," we are told; and his character, as snown in the brief glimpse we have of it, is great indeed. He had those virtues which are admirel in every age and every country-courage, generosity and kindness. His courage is plain from the words, "By him the Lord had given deliverance unto Syria: he was also a mighty man in valor." His generosity may be noticed in his dealings with Elisha, when he vainly urged him to take a rich present, and afterwards gave Gehazi twice as much as he asked-the weight of silver being as much as two men could carry. If he had not been kind to his household, the little captive maid would not have been so eager to have him cured of his leprosy, neither would his servants have dared to offer unasked advice.

But these virtues are not uncommon even among the heathen, and Naaman was great in another way, displaying a very rare virtue ingeed. He was willing to own himself in the wrong. He did this in a very practical fashion, by accepting his servants' advice and acting on it at once. It may not be quite true that " the only vice disliked by all men is ad-vice "; but certainly a man is very soldom willing to accept advice from one of his own household, especially from one in an inferior position. Every man may not be as unwilling to admit that he might possibly be mistaken as a certain Boston editor. Someone came to him and said, "Your Paper says that I hanged myself, and I want you to take it back.

said the editor, "we are not in the No, habit of doing that, but we will say the rope broke and you escaped.'

Naaman was great enough to understand that his dignity could be safely left to care for itself. He was eager to grasp any means of cure, as sick people generally are. That accounts for the vast number of "cure-alls" on the market, for the demand creates the supply. He scorned the simple remedy proposed by Elisha, and that too was natural enough. I saw in the paper the other day that a man dying of consumption had cured himseli by walking from California to Toronto. Whether that is a fact or not, it is certainly true that the simplest remody for consumption, and also for many other diseases, is the best. Like Elisha's prescription, it is free as air In fact, it is fresh air, which is now prescribed in large quantities by the best doctors. How many sick people might be cured, if they were willing to try this simple remedy. But, like Naaman, they are ready thing," but scorn anything so simple and common as fresh air. But we are wandering from our subject, which is true greatness. Solomon says, "He that is slow to anger is better than the mighty; and he that ruleth his spirit than he that taketh a city." Naaman lived about three thousand years ago, and knew nothing of the Christian doctrine about the blessedness of meekness and poverty of spirit; yet we enlightened Christians of the 20th century might learn a very useful lesson from him. We have handly learned to admire meekness yet, much less to practice it, considering that it is almost the same thing as weakness. We talk very scornfully of a man being "poorspirited," notwithstanding the fact that the very first words of our Lord's first sermon are "Blessed are the poor in spirit : for theirs is the kingdom of heaven." Naaman, as I have tried to point out, was great in many ways, but greatest of all in his simple and direct ways of accepting advice which he knew to be good ; without seeming to consider for a moment that he was lowering his dignity by owning himself mistaken in his first indignant refusal of the prophet's advice. Most of the petty squabbles which are apt to blossom into serious quarrels might be nipped in the bud if even one of the persons concerned would be great enough to acknowledge that he was, partly at least, in the wrong. There is generally wrong on both sides, and such a frank and honest acknowledgment often calls forth a similar confession from the other person concerned. It is not an easy thing to do, certainly, but no one can be truly great without effort.

THE FARMER'S ADVOCATE.

Humility is a rare and very beautiful grace, one that it would be well for us all to cultivate; remembering that the high and loity One not only dwells in the high and lofty place, but with him also that is of a contrite and humble

> " If that in sight of God is great Which counts itself for small, We, by that law, Humility The chiefest grace must call Which being such, not knows itself To be a grace at all."

HOPE.

THE CHILDREN'S CORNER.

Prize Competition.

Those deserving honorable mention for their descriptions of the picture called " Perfect Bliss " are Elsie A. Zavitz, W. M. Deacon, Charlotte Hunter, Annie Baker, Abbie Alderson, Isabella Mackenzie, Mina McCullough, Roy Harris and Alice Armstrong. The list of prizewinners was given last month, and I hope they have received their prizes before this. Frank Hawkey's essay was particularly good, although it Mary Kydd, too, had to be shortened a little. deserves a special word of praise. I don't think many little girls of seven could write so well. Congratulations to you too, Florence; I am glad to see the children under twelve are not afraid to try.

COUSIN DOROTHY.

PRIZE STORY-CLASS II. Perfect Bliss.

Well, I think the picture represents two little

fectly happy. When the "Farmer's Advocate " comes there is "Perfect Bliss " in our house, for I love it the best of any paper that I know of.

MARY EVELYN KYDD (aged 7). Thames Road, Ont.

"Night."

What is more ideal than nature's sweet repose? After the sultry day, the earth is cooled, and the flowers, pitifully wilted by the sun's figree rays, now freshen, kissed by the dews of heaven, and with petals fondly folded, shumter. The gentle zephyrs, alike. rock the tender grass and the stately trees to sleep, while nature's harps play fitful luilabys. The sun, which, through the long day, from its place high in the heavens, watched over us, now rests behind the western hills, and the moon, relieving that golden orb, with softer light, watches while we sleep. The singing birds, that warhled all day long, have sung their vespers, and in the peaceful quietness are resting The radiant vault of heaven is studded with myriad stars, which are reflected by the placid waters of the shimmering lakes, and the passing clouds, delicately silvered by the moon's pale light, drift lazily across the 1 44 heavens.

But the babbling brooks, that never rest, ripple peacefully along their course, while the lakes, when nature is in a gentle mooth, fondly lap their pebbled shores. Over the still night air, from the pools and from the marshes, comes the monotonous croaking of the frogs and of the lizards. All through the long night these sounds are heard, but nature, undisturbed, sleeps, her rest unbroken by these accustomed sounds.



"A FISH STORY."

children having a social chat and eating some hot roasted apples which they have bought with their money, and are resting after a hard day's work. The little children are orphans, their parents both

But nature's rest is ending. From behind the eastern hills rises, now higher and higher, a ball of fire, and golden beams stretch across the brightening sky. The freshened flowers unfold closed petals; the silver moon and the blinking stars have left their places in the heavens, and nature, refreshed by her sweet re-ELTON L. CLEMENS. pose, awakens. Leamington.

dying when the children were young, and as they had nothing to leave them, the little boy and girl were cast on the streets of New York to earn a living. The boy sold newspapers and the little girl sold laces around the streets of the city. By doing this they earned enough to buy food and to pay rent for a room in the basement of an old building.

One Saturday night, after they have paid up all their debts for the week, they find that they have enough money to buy some apples, and roast them by their fire. They seem to enjoy the apples very much, but the little boy seems to find his too hot to at, and thus we see him cooling it. The girl seems to be able to eat hers right up and smile at the boy. The children seem very happy, and perhaps they are as happy as the children who have every enjoyment and are waited upon by servants,

FLORENCE FORTNER aged 10).

Hyde Park, Ont.

CLASS III. Perfect Bliss.

In the morning it was cold, so Willie put on his stockings and boots, cuffs and cap, and warm clothes. Jennie stayed home to keep the baby, and the sun came out warm, so she went bare-footed. She washed her feet, hands and face, and got a clean dress on, and her mother said she and Willie could have some hot apples and a cup of milk. Jennie saw Willie coming from school, and called, "Willie ! Willie ! Hurry-I've got something for you." Willie came running, and hung his bag on the back of the chair and grabbed an apple so eagerly that Jennie could not keep from laughing. When they are together they are per-

Home Cures.

If poisoned, take mustard, or salt, tablespoon, In a cup of warm water, and swallow right soon. For burns, try borax, and a wet bandage, too ; If blistered, then oil and dry flannel will do. For children's convulsions warm baths are the rule; With castor oil dose, too, but keep the head cool. Give syrup of ipecac when croup is in store; For fainting, stretch palient right out on the floor. To soak in hot water is best for a sprain-Remember these rules, and 'twill save you much pain. -Exchange.

"A Fish Story."

It is not often that the narrator of wonderiul achievements can have the apparently rapt attention of four pretty girls to the tale he is telling them. The question is, whether there may not be a little make-believe in even their attitudes? They seem to have said," Here he comes. Mind, not a smile, however amazing a story he may tell us. Let him go on until the climax is reached, and it will be our turn then." I think the very gravity of their faces Fortends mischief for the fisherman when he comes to the end of the "fish story" which he has brought, in spite of his almost empty bag, for H. A. B. their delectation.

THE FARMER'S ADVOCATE.

A Letter from a "Farmer-Woman."

To the Editor of the "Home Magazine ":

652

I have wondered for some time why our farmers' wives and daughters are content to live such narrow lives, without an interest outside their households, and if the editors of our invaluable "Advocate" could not suggest a remedy for this state of affairs. Now, of course, we have all read the many excellent articles which have been published in the "Advocate," in which the writers wax eloquent over brilliant advantages of country life. But the real truth is, that the great majority of country people are utterly indifferent to those many advantages.

How many of our young people take any interest whatever in the "flowers of the field and iorest, the wonders of the starry sky, or the ever-changing beauty unfolding itself before he dless eyes?"

Our young folks are looking for a good time, not for opportunities for cultivating their minds In a school composed of fifty pupils, Listen! only one had ever seen a cowslip, a though, on their way to school, the children passed hundreds of cowslips in bloom, and the teacher in this school (a farmer's son) stated that the maidenhair forn was very rare, although the woods here abound in this species. One young lady informed me that she had been told the names of the wild flowers, but she "forgot them all." And I have known people to mistake a basswood in bloom for some sort of ormamental flowering tree Astronomy ? I doubt if many women could point out even the polestar, or would be interested if you did. Ornithology? Not one farmer's daughter in twenty can tell the difference between a bobolink and an oriole. As for watching the white mist on the river disappearing before the rising sun, or the golden grain swaying in the summer wind, very lew think of such a thing. And the long winter evenings spent with our favorite authors, or forming the acquaintance of new ones? One half of my young friends frankly tell me they "don't like reading," the others " read anything they can get their hands on." Pinned down to a more specific answer, they "can't remember author's names," and ask if I read the story in the "Globe" or "Citizen"

This in a district where every little town has a good public library. Nor is it because they are too busy to study anything, because these girls are not interested in their work. They hate to work in the garden. they hate to sew ; Ma bakes the bread, Ma does the knitting; they will not mend, and I don't know what they like to do. I as'ed one young girl what she and her brothers and sisters did to amuse themselves in the evenings "Oh, do up the chores, and go to bed :-well, most nights we go somewhere." And that really is the popular amusement. Pa reads the paper or dozes on the lounge; Ma knits or mends; the boys and girls-generally they "go somewhere." They are not musicians: they are "out of practice," or "only took six lessons "; they have no games; they are "going to get some "; they cannot embroider centerpieces or piece fancy quilts: they "don't know how,"; as for "society small talk," it is a lost art. Most of the girls "just love" dancing, but few are really graceful dancers. In fact the chief employment of the modern country girl is, like Sister Anne in the Bluebeard story, keeping a sharp lookout from the watch ower for the however, coming Prince Charming, not. Fatima's, but on her own extremely individual The older woman is interested in account. her children, the latest neighborhood gossip, her little daily round of tasks, and has neither time nor inclination for anything else. Now, I am tired, tired of women living in a (up-and saucer, and never attempting to peep outside the rim of the saucer, but I can see no way of bettering things. Can the editor or readers of the "Home Magazine" throw any light on this dark question ?

Doing Something.

If you're sick with something chronic, And you think you need a tonic,

Do something. There is life and health in doing. There is pleasure in pursuing, Doing, then, is health accruing. Do something.

lf you're fidgety and nervous, ∞ Think you need the doctor's service, Do something. Doing something will relieve you Of the symptoms that deceive you, Therefore, if these troubles grieve you, Do something.

If you do not like the weather, Don't condemn it altogether— Do something. It will make the weather clearer, Life will sweeter be and dearer, And the joys of heaven nearer— Do something.

And if you are seeking pleasure Or enjoyment in full measure, Do something. Idleness ! There's nothing in it :

If you're busy, don't begin it, 'Twill not pay you for a minute— Do something. —W. S. Whitacre

A Train Flirtation.

I did not even know her name, Nor where she lived—nor whence she came— 'Twas sad, and yet Was I so much to blame That all my heart should start to flame, And flare and fret?

She was so sweet, so passing fair. With such a smile, with such an air-What could I do?

A glance as shy, as debonair, An eye as bright, a smile as rare, I never knew !

And so I smiled across the aisle, And met the winsome, merry smile

She sent so bold ;

At last she laughed, then after while She cooed aloud in friendly style, '' I'm free years old !''

-From Western Graphic

Summer.

Moss at our feet, and overhead all green. 'Gainst tender skies that ever earthward lean. While feathered songsters lift their lays serene.

Hillsides aglow, and bramble bower'd dells Where woodland music softly sinks and swells, Where sway a million pale and fragrant bells.

See the last trace of dreariness give room To summer's glow of sunshine and perfume, And the glad times of mingled song and bloom. —Genesee Richardson, in Outing.

· Laundry Lines.

Nackins should always be folded with the selvage

FOUNDED 1866

Economy.

"Practice economy as a fine art, make a duty and a pleasure of it; it is the mortar wherein you lay up the walls of a home," one writer says. "Don't be ashamed of economy: study it; consult about it; don't confound it with meanness. Meanness is going in debt for luxury." A friend of mine once tried to practice economy. In the first place, she took her children out of school, hired a poor servant in the place of a good one, discontinued her magazines and newspapers, while her two grown daughters were as idle and dressy as before. She called that economy, but I don't.

Now, don't let pride get a foothold in your home. Franklin says: "Pride is as loud a beggar as want, and twice as saucy." When you purchase one fine article of dress you need more to correspond with it. Better stop before you commence. You will then be likely to keep out of debt; and don't hang a millstone of debt about your husband's neck. It may ruin him, and debts will increase instead of decrease. "Oh dear, you say, "no new clothes ! How will it look ! Why, that is an open declaration of poventy. No, it is not poverty, but economy and honesty. Then if you have fewer fine clothes, you will care less about going out, and so you will not need to entertain so much. I do not mean by this, not to go out or entertain at all, but you will like privacy more than company that is bringing you into debt. "How mean it makes me feel to see my friends out in fine new clothes," you remark. lerhaps they have gone in debt for them, and then perhaps they can afford it; but if you had such clothes you would certainly have to run in debt for them. One must not measure one's expenses by other people's outlays, but by one's in-

The people of to-day respect and imitate the showy rather than the substantial. Encourage your desires, spend more than you can afford, and you will pass along the road to ruin. On the other hand, by being careful, practising economy, living within one's means, one may enter the road of assured prosperity. "The hand of the diligent maketh rich."

If people would only learn that economy is a thing of littles and individuals and of every day, and not some great thing ! Order is everything in practising economy.

I know a lady who is well-to-do, and she says prosperity came by economy. She says Economize in little things, and great economies will take care of themselves.

This love of dress and love of display which seems to be in every woman's heart is the one great hindrance to practising economy. Fear of what others will say is another great drawback. "She daren't practice economy," you say. Yes, she dare. There are many women who are economizing in their homes and in their dress. They are also helping their husbands on to the road of prosperity. Let us practice more economy in the home. MARY VERNE. Port Royal, Ont.

A Missionary Story.

A missionary returned from Equatorial Africa told this story at a club the other night :

Yours in despair. DAME SANDHURST.

Household Hints.

An old-fashioned housewife suggests that cupboards and closets can be rid of mice and ants by stopping up the mouse holes with corks dipped in carbolic acid, and the floors and shelves should be scrubbed with diluted carbolic acid as well. A teaspoonful to a bucket of water is required, but the water must not be hot, and the acid must be stirred in with a stick until incorporated with the water, for carbolic acid is a powerful corrosive, and therefore great care is needed in handling it.

. A small wringer attached to the side of a mop pail is a valuable aid to quickness, as well as neatness of work, and housekeepers will do well to be supplied with one.

An easy and satisfactory way to remove dust from a painted floor is to wet a flannel bag, wring out as dry as possible; put it on the broom and drag it with even strokes over the floor. All the dirt will in this way be collected in one place and can be easily taken up without leaving streaks of dust on the paint.

toward the ironer.

The water in which rice has been boiled should be saved for starching muslins.

Rainwater and white castile soap in lukewarm suds is the best mixture in which to wash embroidcries

Never have irons on the stove when cooking, particularly when the article cooking is one that is apt to flow or boil over or while frying.

A teaspoonful of kerosene does as well as a bit of white wax in boiled starch, and mutton suet is as good as either to make a plain gloss.

To retain the colors in any washing materials, soak the articles in alum water. A teaspoonful of alum to every quart of cold water is the proportion.

In hanging blankets after washing them remember to put them lengthwise over the line, otherwise they are likely to split from the weight of water in them.

Wash flatirons occasionally with warm water, to every two quarts of which has been added half a tablespoonful of melted lard. Wipe thoroughly and set in a warm spot till perfectly dry.

Humorous.

A witness called in a case in the King's Bench, says the London Daily Mail, was asked his name. "John 'Awkins." was the prompt reply. "Do you spell your name with or without an 'h'?" queried counsel. "With—J-o-h-n." was the emphatic reply.

A self-appointed instructor in civics, nine years of age, was rehearsing the greatness of Premier Laurier, when he was interrupted by one of his hearers, a little girl, who said gently, but with a certain air of reproof "God made Canada; he only lets Sir Wilfred run it."

In this man's territory there was a chief who had resisted every appeal to make him a Christian. Ho was the biggest man in a sort of confederation of savage tribes, and the missionary knew that if the big chief were once converted the effect would be felt by every native within fifty miles. So the missionary kept after him month in and month out, in face of every kind of indifference and rebuff.

At the end of two years the missionary was all but ready to give up, when one day the miracle came to pass—the big chiei's heart was touched by the truths of Christianity. The missionary redoubled his efforts, and in two months more the big chief offered himself tor baptism.

It looked like a great victory won, until, in examining the new convert, the missionary discovered that according to the chiefly prerogative he had two wives. The missionary expressed his horror, indignation and grief to the chief.

He explained to him how the state of polygamy was a barrier to anyone who wished to become a Christian. Then he prayed with him, and the chief departed, weeping over his unfitness.

But a month later he came again, joyous, devout, and, throwing himself at the missionary's feet, asked for haptism.

"My brother," said the missionary, "I cannot baptize you while you are the husband of two wives."

"No two wives, just one wife now," said the

The missionary raised him to his feet. Here was the true penitent.

"My brother," said the missionary, "you make my heart glad And what did you do with your second wife ?"

 $^{\prime\prime}$ Um," answered the chief. "She no good; me want be Kistian; me eat her."

THE FARMER'S ADVOCATE.

FARM BOOKS.

The farmer's home without an Agricultural Library is lacking in one of the chief aids to pleasure and success. We have gone over the available first-class works on agricultural subjects, and have selected the best. See below for prices and how to obtain.

SOIL AND CROP.

THE FERTILITY OF THE LAND.-Roberts. 372 pages. \$1.25. A BOOK ON SILAGE.-Woll. 185 pages. \$1.00. SOILING, BNSILAGE, AND BARN CONSTRUCTION. - F. S. Peer. 247 pages. \$1.00. SOILING CROPS AND THE SILO.-Shaw. 366 pages. \$1.50.

LIVE STOCK.

VETERINARY ELEMENTS. - A. G. Hopkins, B. Agr., D. V. M. \$1.50. A practical book for stockmen and agricultural students. THE STUDY OF BREEDS (CATTLE, SHEEP, AND SWINE). - Prof. Shaw. 400 pages;

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PLANT AND ANIMAL LIFE.

W E have succeeded in procuring from one of the most reliable jewelers in Canada a complete list of Gents' and Ladies' Watches of suffi-cient variety to suit every one, and have no hesitation in recom-mending them to our readers as premiums worthy of an effort to secure. These are not by any means trashy goods, but first-class in every particular, and we assure you that you will be pleased with whatever of the above premiums you may obtain. Let us hear from you at an early date with a good list of new subscribers accompanied by the cash and take you choice. and take you choice. Ladies' Watches. 1 3 XIV 4 -1

		Gents' Watches.	
			v Sub- lbers,
No.	1.	Yankee Nickel Watch	2
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No.	6,	7 Jeweled Gent's Elgin in Gun Metal Case	11

No.	7.	7	Jeweled Gent's Elgin in Sterling Silver Case	14
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Description of Watches.

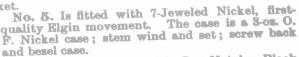
The accompanying cuts fairly well repre-sent all the Ladies' and Gents' Watches, and a description of each as numbered is as follows:

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

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

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

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



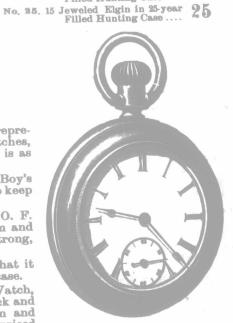
No. 6. Same movement in Gun Metal or Black Steel screw back and bezel case.

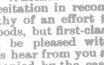
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Nos. 10, 11, 12, 13 and 14 are fitted in the same style of cases as Nos. 5, 6, 7, 8 and 9; the dif-ference is in the movement, and the movement is 15-Jeweled Nickel, first-quality Elgin movement. No. 15. Is a small-sized Swiss O. F. Gun Metal Chatelaine Watch.





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

MISCELLANEOUS.

 THE HOME PHYSICIAN AND CYCLOPEDIA OF MEDICINE.—By seven eminent physicians, aided by specialists. 1,300 pages; illustrated. Cloth, \$4.75; leather, \$5.75.
 LANDSCAPE GARDENING.—S. T. Maynard. 338 pages. \$1.50. BIRDS THAT HUNT AND ARE HUNTED.-Neltje Blanchan. 360 pages. \$2.25.

HOW TO OBTAIN THESE BOOKS :

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

Books valued at from \$0.30 to \$0.65, for 1 new subscriber.

3 V	Sided se itom	.90	to	1.25,	for	2	6.6
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We can furnish any of the above books at the regular retail price, which is given opposite the title of the book. By a careful study of the above list, any farmer can choose a select list of books suited to his needs, and for a small outlay in cash, or effort in obtaining new subscribers for the ADVO-CATE, secure the nucleus of a useful library.

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The WILLIAM WELD CO., Ltd., London, Ontario.

No. 16. Is thesame, only with Sterling Silver case, which can be had nicely engraved. Nos. 17 and 18 are a good-quality American Watch, O. F. stem wind, and American watch, O. F. stem wind, and push-in stem and turn to set hands. These are a little larger than the usual Ladies' Watches, and are smaller than the usual Boys' Watches, though can be used for either Boys Girls or Young Ladies

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

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

Nos. 22, 23, 24 and 25 are similar to the accompanying cut. These are regular Ladies' Hunting Watches. Nos. 22 and 24 are fitted in 20-year guaranteed Gold Filled cases, nicely ornamented, or to be had in



cases, nicely ornamented, or to be had in plain or plain engine turned, and the same applies to Nos. 23 and 25, excepting that they are fitted in 25-year guar-anteed Gold Filled cases, and 14k Gold Filled; 22 and 23 are fitted with 7-anteed Nickel, first-quality Elgin movements. Nos. 24 and 25 are fitted with 15-Jeweled Nickel, first-quality Elgin movements.

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

WELD CO., Ltd., London, Ontario. The WM.



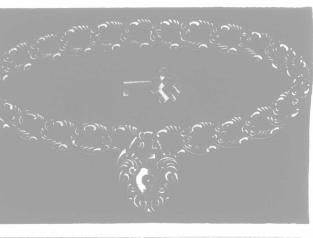


For 2 new subscribers. Sterling silver for 3 new subscrib-ers. For each additional new sub-scriber, two Sterling Silver Friendship Hearts.

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n EGIN TO CANVASS

AT ONCE



HANDY, DURABLE and ATTRACTIVE. Made to contain the 24 issues of the year. We will forward this Binder, postpaid, to anyone sending us the names of TWO NEW SUBSCRIBERS and \$2.00.

FOR NEW SUBSCRIBERS. The Christmas number for 1902 will be sent FREE to all who now suscribe for 1903.

Subscription Price, \$1.00 per Annum

All are magnificent instruments and each is furnished in a neat and durable case.

How to Get FIRST-CLASS COLLIE.

Twelve New Subscribers.

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



Write for a sample copy of the Farmer's Advocate, and begin to work for these premiums. Cash must accompany new names.

WELD COMPANY, LTD., LONDON,

THE FARMER'S ADVOCATE.

655

ELL - SMIT н WM. H. SMITH. FRANK C. BELL

People going West like to follow along about the same latitude they have been accustomed to. For that reason the farmer of Ontario feels are to be the same latitude they have been accustomed to. For that reason the farmer of Ontario feels for markets for all he has to find he locates near WINNIPEG, he is near a city of 50 000 people to day and 100,000 people a few years hence. He notices, too, that not only the Untario farmer of the American farmer, has his eye on Manitoba, and that while there is a large demand for land this year, there will be a much greater demand another year. They are coming this way. Will you come now, or will you wait for prices to double and then come? Many farmers from Eastern Untario should come at once and secure some of this cheapland. Come, you farmer with a large family and a small farm. Come, you newly-married people just starting out for a home of your own. Come, you renter; rent or buy a farm here. Come, you speculator, and buy a good plece of land that will double in value. They are some for all here, Write us and tell us of your wants, and we will answer your letters, and try and fill the bill. **Prices from \$5.00 to \$25.00 per acree.**

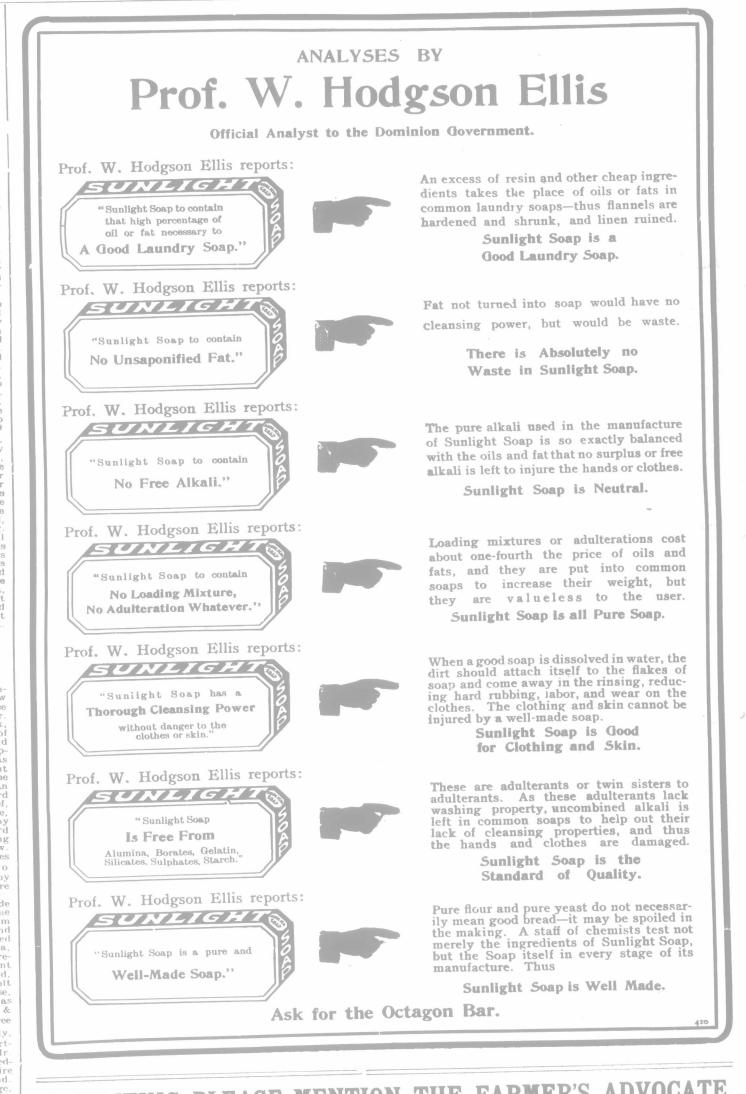
COMPANY, Merchants' Bank Building,

GOSSIP.

LAND

Glenbournie Stock Farm lies in the County of Grey, about six miles south-west of Meaford Station, Ont., and is the property of Mr. Robt. Batty, breeder of Scotch Shorthorns, Shropshire sheep, and Yorkshire hogs. The herd of Shorthorns numbers 23 head, of Urys, Matchlesses, Stamfords, and Adelinas, Matchlesses, Stamfords, and Adelinas, headed by the grandly-bred bull, Village Hero 40898, by Royal Baron 31878; dam Village Maid 24760, by Challenge 2933, who is the sire of most of the young ones. The Adelina family is represented by the cow, Hillsdale Ade-lina, Vol. 16, by Hillsdale Chief 22937, a grandson of Indian Chief; dam Ade-lina 4th 29125, by Lord Outhwaite 18787. This cow is now suckling a three-months-old bull calf. One of the Stamfords is Nelkie Osborne, Vol. 13, by Golden Eagle 21090, dam Golden Hope 2nd 23724, by Aberdonian 11406. This cow traces to Imp. Stamford 5th 506. She has a beautiful heifer calf by Rcd King. One of the Matchless cows is Millie Silverthorn 30859, by Sir Jasper 17916; dam Rosalind 24062 by Arthur Fitz Ingram 10432. This cow is now in calf to the Marchers cow is now in calf to the Marchers bull, Imp. Royal Emperor. The Ury family is represented by Ury Queen 26425, by Sir Jasper; dam Meaford Daisy 14046, by Lord Barmpton 3405. She has an extra good eight-months-old heifer, Ury Lily, by Ury King 36762. Another of the Urys is Ury Nell 34461. by Village Baron 22656; dam Miss Ingram 18519, by Lord George Ingram. There is a one-year-old heifer out of her. Ury Blanche, Vol. 19, by May Duke 21048, by Clipper King, a half-brother to the champion Judge. In all, there are 9 heifers from 6 months to 2 years cld, out of the above named cows and sired by Village Baron, May Duke. Midshipman, and the stock bull. In males there are only three calves left, from two to four months old, which will be for sale later on; but all the above mentioned heifers are for sale, together with a few of the older females. The Shropshires are honorable representatives of the breed, showing good form and perfect covering. The lambs are doing extra well and will be for sale in the fall. The Yorkshires are of Brethour breeding, which speaks for their quality. There are young sows on hand at present for sale, extra good ones, but no males. Mr. Batty is one of the oldest breeders in the Peninsula, and thoroughl headed by the grandly-bred bull, Village Hero 40898, by Royal Baron 31878;

DALGETY BROS.' IMPORTED



WINNIPEG.

DALGETY BROS.' IMPORTED CLYDESDALES. Messrs. Dalgety Bros., London, On-tario, recently shipped from Glasgow twelve stallions and two illies. Of these may be mentioned the purchase from Mr. Alexander Scott, Berryyards, Greenock, of the big prizewinning horse, Prince of Cowal (10E49), one of the biggest and most powerful Clydesdale stallions ship-ped to Canada for a long time. He was got by Mr. Riddell's prize horse, Gallant Prince (10552), winner at both the Highland and Glasgow, and out of an own sister of the champion Sir Everard (3533). The second, Montrose Chief, was purchased from Mr. Wm. Meikle, Newbigging, Montrose, and was got by Mr. Welster's noted breeding horse, Lord Fauntleroy, whose produce were gaining first prizes at the recent Angus Show. Three were purchased from Mr. James Drummond, Pitcrothie, Dunfermline, two being two-year-olds. One was got by the noted Clackmannan and Fifeshire sprenium horse, Borland Pride (10315) a son of the celebrated Baron's Pride (9122), while the second in the same lot was by the noted Kinross premium horse, Prince of Roxburgh (10616), and was out of the same dam as the noted Glasgow premium horse. Casabianca, and got by Macgregor (1487). The re-mainder of the Dalgety Bros. chipment was purchased from Mr. Peter Crawford, Dargavel. Dumfries, and included a colt of by the Cawdor Cup champion horse. Prince of Carruchan (8151), which was never beaten at any show of the H. & A. Society. where he won three years in succession; Prince Shapely, the Bute. Dumfries, and Duke of Port-A. Society, where he won three years in succession; Prince Shapely, the Bute. Dumfries, and Duke of Port-land's premium horse, bred by Mr. James Kerr, and the well-known breed-ing horse, Royal champion (9356), sire of many prize horses in Cumberland. Mr. James Dalgety, who has charge. expects to reach Toronto with this Im-portation in time for the Industrial Ex-hibition there.

WRITING PLEASE MENTION THE FARMER'S ADVOCATE. IN

656

THE FARMER'S ADVOCATE

FOUNDED 1866

A Farmers' Combine.

Articles of incorporation have been filed with the South Dakota Secretary of State by the Farmers' National Co-operative Exchange Co'y, with a capital of \$50,000,000, to enable farmers to secure better prices for their produce. The corporation proposes to buy and sell grain, live stock and all kinds of produce on commission and otherwise. A chain of grain elevators, warehouses, cold-storage plants and stock-yards will be built. Half of the capital stock will be left virtually with the farmers in the various banks where the money has been raised to carry their crops to more favorable markets, one-fourth will be for building elevators, yards, branch offices, etc., and the remainder will be a cash fund for deals in grain and provisions on the Board of Trade.

Canada's Agricultural Exports.

Canada's export of wheat, according to un revised figures, amounted for the fiscal year ending June 30th, to 36,446,357 bushels, valued at \$26,410,101, as compared with 18,936,252 bushels, valued at \$13,662,930, for 1900-1901, an increase of 92 per cent. Great Britain was our largest customer, taking 33,371,876 bushels. The United States only bought 15,086 bushels, but Belgium took 1,737,377 bushels, and Germany 1,032,533 bushels. In 1901 our exports of wheat were : Great Britain, 16,766,772 bushels ; Belgium, 379,585 bushels ; Germany, 361,102 bushels; Italy, 278,140 bushels; France, 91,550 bushels; United States, 53,186 bushels.

Our export bacon trade seems to more than hold its own. Last year we sent abroad \$12,163,505 worth, an increase of \$666,025 compared with the preceding twelve months. Great Britain is by long odds the largest consumer of Canadian bacon. Last year we sold the mother country \$12,119,342 worth, or \$660,000 more than in 1901. The United States bought from us \$42,599, an increase of \$5,881. In the matter of hams we did not do so well, our export last year aggregating \$241,485, or \$44,000 below that of the previous year.

Canadian butter exports show an increase of \$2,311,000, the total for 1902 being \$5,667,150, and for 1901, \$3,355,197. Great Britain took \$5,465,495 ; the United States, \$41,554 ; Newfoundland, \$47,066, and other countries, \$113,035. Our sales of cheese abroad were rather disappointing last year. The value of our exports was \$19,870,072, a decrease of \$1,250,000 compared with the preceding twelve months. Our exports of eggs last year reached the sum

of \$1,736,141, being an increase of \$43,845. The purchasers were : Great Britain, \$1,691,024 ; United States, \$38,663; other countries, \$6,554. In shipments of poultry, too, Canada did well, the total being valued at \$238,175, or \$96,653 better than in 1901. Nearly all our poultry went to Great Britain, only \$7,612 being shipped to the United States and \$14,000 to other countries. Our neighbors are awakening to an appreciation of the Canadian potato, which appears to find a ready market in the United States and Cuba. The total export was valued at \$689,860, as against \$366,410 for 1901, an increase of \$323,450. The United States bought \$328,625 worth, and Cuba \$231,106. In the year previous those countries bought \$70,174 and \$181,103, respectively.

GÖSSIP.

About six miles from Myrtle station on the C. P. R. and seven miles from Brooklin on the G. T. R., in the County of Ontario, lies Robin Hill Stock Farm, the property of Mr. Wm. Ormiston, Jr., breeder of Clydesdule horses, Shorthorn cattle, and Yorkshire hogs. Robin Hill Farm is a credit to the Province and a pleasure and a profit to the owner, with its many acres of rich agricultural and pasture lands, its commodious bank barns and well-regulated stables, taste-fully-arranged stone dwelling, and, with-al, the many pure-bred animals roaming the fields. Truly, Mr. Ormiston's is a goodly heritage. The Shorthorns number 25, of the Morning Glory and Lavima families, all in fhe pink of condi-tiou, headed by the richly-bred Mina bull, Mina's Northern Light 38850, by North-ern Light 2nd 21465, dam imp. Mina Princess 5177, by Golden Prince. In-dividually he is a good type of the fashionable Shorthorn, and as a sire is a pronounced success, his calves show-ing a grand form with exceptionally good backs. The foundation cow of the Lavinia family was Lily Glamis 15554. by imp. Lord Glamis 1256; dam Flor-ence 3rd, by Royal Barmpton. She goes back to imp. Lavinia. The founda-tion cow of the Morning Glory family is Morning Glory, Vol. 10, by Prince Arthur Enfield 14680, by Boulderwood (imp.); dam Lily of Tauton 12256, by Marion, dam Mayflower 28723, by Prince Arthur Enfield 14680, by Boulderwood G329, Royal Bruce 26018, Bright Light 15118, Ontario Victor 25359, and the stock bull. A later purchase is the splendid cow, Mayflower 28723, by Prince Arthur Enfield 14680, by Boulderwood G329, Royal Bruce 26018, Bright Light 15148, Ontario Victor 25359, and the stock bull. A later purchase is the splendid cow, Mayflower 28723, by Prince Arthur Enfield 14680, by Boulderwood G329, Royal Bruce 26018, Bright Light Stock bull. A later purchase is the splendid cow, Mayflower 28723, by Prince Morning Glory family, and was sired by Duke Lad 36204, by imp. Gordon. This filthe for sale that are hard norming Glory bred cow. He will make

bus, Ont. Pennabank Stock Farm, the home and property of Mr. liugh Pugh, breeder of Shorthern cattle and Shropshire sheep, lies about three miles from Locust Hill station on the C. P. R. and six miles from either Pickering or Markham on the G. T. R. The Shorthorns number 20 head of Delilahs and Victorias, at the head of which is the splendid bull, Scotch Stamp 33979, by Prince of UX-bridge 3039, dam Ogla 16880, by 2nd Vice Fresident 9957. He is a solid red and shows a form that is massive, even and smooth, and is proving successful as a sire. One of the Victoria-bred cows is Lady Cambria 20383, by Imp. Mexi-co, dam Victoria 2nd 8111, by Pleasant Puke 2204. This cow is one of the up-to-date kind and represents the breed-Puke 2204. This cow is one of the up-to-date kind and represents the breed-ing of that family in the herd. A Delilah-bred cow is Delilah of Penna-bank 25917, by Premier Prince 4849, dam Delilah 5th 2591, by Duke of Ontario. One of her daughters, and an extra good one, is Delilah 3rd, by Imp. Golden Crown. Another is Ethelda 2nd. by Whitevale Victor, by Local Member, by Imp. Vice Counsel, dam Ethelda 25919. In the herd are several heifers bred on these lines that are in splendid condition, also several young bulls, all sired by the stock bull, that are a low-down, meaty lot, all of which are for sale, together with a number of females. In Shropshires Mr. Pugh excels. His stock of over 50 head of Mansell-bred ewes are a grand, well-built and well-covered lot. This season's crop of lambs are sired by two imported rams, one of them bred by Knox, the other by Wil-hams. They are doing exceedingly well, and have perfect covering, and will be a hard lot to turn down this fall at the shows. Lately Mr. Pugh has pur-chased for use this fall the imported ram, Miller's 4227, sired by Lord Bang-lev 8361; dam by Preference 7013. Mr. Pugh's Shropshires are in show condi-tion. Many of them are prizewinners, and this flock will be well represented at the leading shows this fall Mr Pugh reports the demand for both Shorthorns and Shropshires as extra good. He has sold a lot of cattle in the last year's crop went to Ohio. The year's crop, of course, will be for sale. to-date kind and represents the breed

Short Talk on Separators.

N order to draw attention away from the shortcomings of their hollow bowl machines, competitors make a lot of words over the "Alpha Discs" simply because they can not use them in their own separators. We could leave them out-but they increase the capacity of any given size hollow bowl, five times. They make absolute clean skimming under adverse conditions, possible. The "Alpha" bowls travel from one-third to one-half slower than any other, thereby saving power and wear and tear.

Space is limited-more about it next week.

MONTREAL WINNIPEG NEW YORK CHICAGO SAN FRANCISCO PHILADELPHIA POUGHKEEPSIE

The De Laval Separator Co. 77 York Street, Toronto.



GOSSIP.

Greenline, son of Online 2.04, owned by the International Food Co., Minneapolis, Minn., companion to the famous trotting stallion, Directum 2.051, has this season paced in 2.073. Online has other promising colts.

Colwill Bros., Newcastle, Ont., breeders of Shorthorn cattle and Tamworth hogs, in ordering a change in their advertisement, write that they will compete for honors at Toronto Exhibition again this year with their Tamworths and that their stock is coming along in nice condition, not being overloaded with fat but all in the best of shape and of the right type and quality, and such as will give satisfaction to purchasers. See their ad in this paper, and their stock at the fairs, or write them for prices.

Readers will please note as announced in his new advertisement that Mr. J. 1. Balsdon, breeder of Shorthorn cattle, Cotswold sheep and Berkshire pigs, formerly of Balsan, has removed to the well-known Kinnelar Lodge farm at Markham, Ont., occupied until recently by Mr. John Isaac. On this excellent stock farm, which is conveniently situated, be-ing only a mile from Markham station, G. T. R., and two miles from Locust Hill, C. P. R. Mr. Balsdon will have improved facilities for breeding and handling pure-bred stock of the breeds which are his specialties, and of which his are among the best in Ontario. Three young bulls, some good yearling and two-year-old rams, shearling ewes, lambs and pigs of both sexes are offered.

English Berkshires.

FOR SALE.—Choice well bred young boars and sows. A few good Shorthorn calves and Shropshire ram lambs. Barred Rocks. -0

JOHN RACEY, Jr., Lennoxville, Que.

Montgomery, and out of the same name the gr-dam as Royal Cairnton, the Chicago threes by the celebra vear-old winner in 1901, the other ton (4122), -three, with one filly, were purchased premium in 14 from Mr. Peter Crawford, Vargavel, charge of Mr Dumfries Those purchased from Mr expected to -Crawford are Herewell (11375), Laird August 20th.

From the Earl of Roseberry's herd of Aberdeen-Angus cattle at Dalmeny there has recently been sold to Mr. Watter (11537). A choicely-bred filly was also purchased from Mr. Hugh Todd, Harper-Hall, of Washington, Ontario, the well-Craigie (11084), and Sir Tain Hall, of Washington, Ontario, the well-bred bull, Klondyke of The Burn, which has been chief stock sire in the herd for some time back. This superior bull was bred by Colonel McInroy, of The Burn, and has done very well at Dalmeny, his stock so far as they have gone, being of superior quality. Klondyke will be accompanied to Canada by two nice cows, also bought from the Dalmeny herd, one of them being Pride of Aber-deen CXUV, and the other Pride of Dal-menyVIII. CLYDFSDVLES FOR CANADA Messrs. Smith & Richardson, Colum-bus, Ontario, shipped, on August 9th, Southard's Chieftain (11180), from Mr. James Relph, Stainton, Penrith: La-vender (11394) is from the Messrs. Montgomery, and out of the same nure as Roval Cairnton, the Chicago three varsold winner in 1991, the other three, with one filly, were purchased from Mr. Peter Crawford, Dargavel, Dumfries Those purchased from Mr. Crawford are Hegewell (11375), Laird land, Dundonald. She was got by the

FUJI MICRO SAFETY

THE FARMER'S ADVOCATE.

THE OLD WAY

Of Treating Stomach Trouble and Indi-gestion a Barbarous and Useless One.

Useless One. We say the old way, but really it is the common and usual one at the pres-ent time, and many dyspeptics, and physicians as well, consider the first stop in attempting to cure indigestion is to diet, either by selecting certain foods and rejecting others, or to greatly diminish the quantity of food usually taken.

is to the, etche by showing coreally foods and rejecting others, or to greatly diminish the quantity of food usually taken. In other words, the starvation plan is by many supposed to be the first essen-tial in the cure of weak digestion. The almost certain failure of the star-vation cure for stomach trouble has been proven time and again, but still the usual advice, when dyspepsia makes its appearance, is a course of dieting. All this is radically wrong. It is fool-ish aad unscientific to recommend diet-ing or starvation to a person suffering from dyspepsia, because indigestion itself starves every organ and every nerve and fiber in the body. What is needed is abundant nutrition, not less, and this means plenty of good, whoissome, well-cooked food and some natural digestive to assist the weak stomach to digest it. This is exactly the purpose for which Stuart's Dyspepsia Tablets are adapted, and this is the way they cure the worst cases of stomach trouble. The patient eals plenty of wholesome food, and Stuart's Dyspepsia Tablets digest it for him. And this is in accordance with nature and common sense, because in this way the whole system is nourished and the stomach works or not. One of Stuart's Dyspepsia Tablets will digest 1,800 grains of meat. eggs and similar food. Any druggist will tell you that Stu-art's Dyspepsia 'Tablets is a remedy of extraordinary value, and probably is the purest and safest remedy for stomach troubles.

troubles. No person suffering from poor diges-tion and lack of appetite can fail to be immediately and permanently benefited if they would make it a practice to take one or two of Stuart's Dyspepsia one or two of Stuart's Dyspepsia Tablets after each meal.-Advt.

FARMS FOR SALE. "Holmlea," 200 Acres; Park House, 100

BUILDINGS substantial and capacious. SOIL adapted to produce the best results in farm

LOCATION unsurpassed in Canada. Urban pop-

ulations 35,000. SUITED for dairy, stock, swine, poultry, small fruits and vegetables, as well as production of

THE DISTRICT SUGAR-BEET experiments

are eminently satisfactory. SUGAR FACTORY is at Berlin.

WATER pure and abundant. TERMS moderate. Owner deceased. Chances of

a lifetime. Full particulars BOX 394, GALT, ONT.

\$3 a Day Sure boy out of the boot of the work and teach you free we furnish the wou live. Send us you focality where you live. Send us you will explain the business fully. Remen se a clear profit of \$3 for every day address, and ber we guarantee a clear profit of \$3 for every day't work, absolutely sure. Write at once. IEPERIAL SILVERWARE CO., Bex 508 WINDSOR, ONT



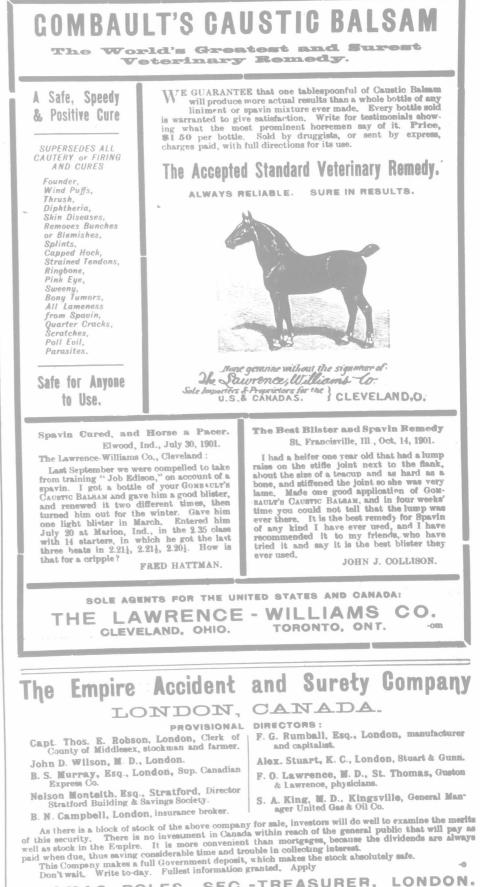
FENCES AND GATES are a necessity on a well-kept farm. If those surrounding the house and barns be ornamental and neatly built the property will be increased in value. Durability, neatness, strength and cheapness are points to be considered in a good fence. From this standpoint, Esplen, Frame & Co., Stratford, have something on the market claiming attention. See their advertisement in this paper.

NOTICES.

OUR GRANDFATHERS suffered from pains and aches, the result of severe toil, but they had, even in their day, a remedy in St. Jacob's Oil. That old remedy is as good to-day as ever, and to its announcement in the advertising columns of this paper we confidently direct those suffering from rheumatism or allied complaints, knowing that in this famous oil relief may be found.

DESIRABLE FARMS may be had everywhere in Ontario, but none present a more home-like appearance than some to be found in Waterloo Co. "Holmlea' and "Park House," two valuable farms of the estate of Jas. McAlister, adverterised in this number, are situated in Waterloo Tp., and are truly worth investigation by any person seeking a first-class property.

HUSKING AND SHREDDING .-- Geo White & Sons, of London, Ont., are this season launching out in a new line, by putting upon the market the only Canadian Corn Husker and Shredder built. The rapidly increasing corn area in Canada has, of late years, stimulated a demand for a machine that will remove the ears of properly-matured corn, thus saving labor, and also so shred the stalks as to convert them into a condition in which stock will relish and consume them. A large proportion of dry cured stalks are always wasted in ordinary handling. Heretofore a few of these machines have been imported, and recognizing the increasing need, Messrs. White & Sons decided, with commendable enterprise, to put a first-class, upto-date husker and shredder within the reach of Canadian farmers. The shredding is done by the double, spiral shredding head which the Company believe has never been surpassed, if, indeed, equalled. For shredding, corn should be cut following the denting of the kernels when the blade begins to dry, and should not stand longer in the field than is necessary to bring the ears to proper condition for storing in the crib. The shredded fodder should not be stored when green or wet. Full particulars as to the apparatus and method of handling shredded corn will be found in the very complete illustrated pamphlet which rs. White & Sons have issued and which any of our readers may obtain by writing them a post card or letter. Frices will also be quoted on application.



THOMAS BOLES, SEC.-TREASURER, LONDON.

Five years, Langton's Danegelt, 91 C. H. S. B., 336 A. B.; by Langton's Performer (4844) E. H. S. B., 242 A. B.; dam Lady Danegelt (8036) E. H. S. B., 720 A. B. Bred by F. C. Stevens, Maplewood, Attica, N. Y. Also several registered Hackney mares. 0

Edward C. Attrill, Goderich, Ont.

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PENNABANK STOCK FARM.

Twenty-five ram lambs; a few ewe lambs and shear-lings with Imp. Williams or Knox-bred sires; 1 good two-shear ram. Four fine young Shorthorn bulls. Also our stock bull, 3 years old, Sootch Stamp No. 33979. om Hugh Fugh, Whitevale, Ont.

GEO. ISAAC, BOMANTON, ONT., IMPORTER AND BREEDER OF

Scotch Shorthorn Cattle

Have imported, this year, 68 head of Shorthorns-6 bulls and 62 females. Twenty-seven head due to leave quarantine 11th Sept. Intending purcha-ers should see this stock or correspond. om

BOMANTON P. O., COBOURG STATION, G.T.R.

CHOICE HEREFORDS. A. S. HUNTER, DURHAM. ONT. has for sale the following high-bred Herefords :

25 Young Registered Bulls. 30 Young Registered Helfers. 10 Young Registered Cows.

The above stock are in good condition, and are bred from imported and American bred sires. Ran-chers will do well to inspect this offering. om

The announcement elsewhere in this issue of the Central Business College, Toronto, contains the portrait of Prin-cipal W. H. Shaw. It will do you good to take a look at both.

BUSINESS FARMING cannot be cur-ried on without some means of weighing the farm produce. Scales not only make the profession more interesting, but they increase the profits. Read the announce-ment of John Fox, London, Ont., to be found elsewhere in this paper.

FIRST-CLASS FRUIT TREES only should be planted by those who intend enlarging their orchard. This is the best season to place an order, but it should only be given to a reliable firm. See what A. G. Hull & Son, St. Cath-arines, Ont., have to say eisewhere in this number.

ONCE ONLY is the title of the an-nouncement of the Federated Business Colleges of Ontario which appears in another part of this issue of the "Farm-or's Advocate." These schools include several of the oldest and best commer-cial colleges in Canada, such as the British American, of Toronto; the Can-ada, of Hamilton; the Forest City, of London; the Ottawa, of Ottawa; and the Hamilton, of the Ambitious City. The gentlemen at the head of these schools have won a high place among practical business educators, and their graduates number well up in the thou-sands-25,000 it is stated. The several colleges in the federation publish inter-esting and instructive circulars that ought to be of value to farmers' sons and daughters. and daughters.

SEED NEW

PROSPERITY.

MOGUL.

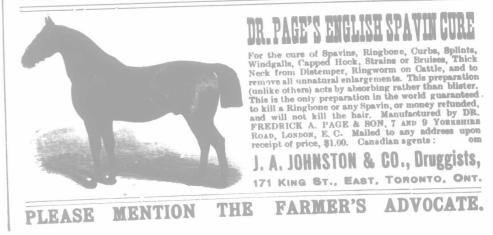
A magnificent new red wheat, bald, with large head and white chaff. It has grand plump grain and splendid clean straw. It is very productive, one grower, from 10 bushels sown, raising 285 bushels. \$1.50 per bushel; \$2.75 for 2 bushels

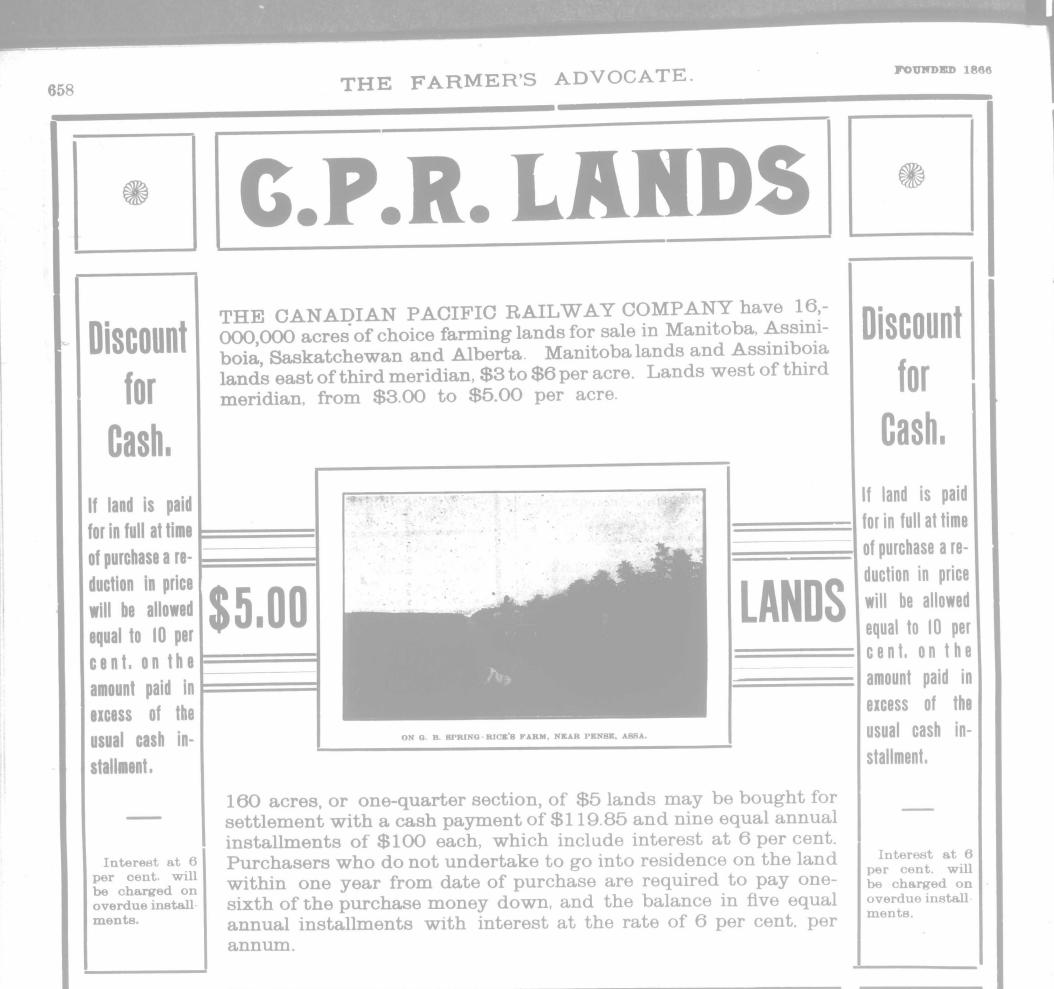
A splendid new white variety, with large head and good straw. It is a heavy yielder, and our grower had a yield of very close to 40 bushels to the aore, handsome, heavy grain. s1.10 per bushel.

W A W

COTTON BAGS 18 CENTS EACH EXTRA. De See our other Advertisement in this same issue.

JOHN A. BRUCE & CO., MERCHANTS, HAMILTON, CAN.





For Maps and Full F. T. GRIFFIN, Land Commissioner, WINNIPEG.

Or with reference to Alberta lands, to WM. TOOLE, District Land Agent, CALGARY.

GOSSIP.

GOUSSIP. Mr. Geo. Isaac, Bowmanton, Ont., importer and breeder of Scotch Shorthorns, who has imported 68 head of selected cattle this year and has 27 now in quarantine, which will be due to leave there September 11th, in writing the "Advocate" ordering a change in his advertisement calling attention to tris shipment, reports the following sales from his heid since March 1st. 30 head to Mr. Hector Cowan, Paullina, Iowa, U. S.; 7 head to Mr. R. Miller, Stouffville, Ont.; 2 head to Mr. Re Miller, Stouffville, Ont.; 1 bull and 1 heiter to J. M. Gardhouse, Highfield, Ont.; 1 bull and 1 heiter to Augustus Rosevear, Roseneath. Ont Mr. Isaac adds. I have 25 heiters and two bulls due to leave quarantine on the 11th of September next. These were purchased from the most noted breeders in Scotland and are a select lot, both as regards breeding and quality, and whilst they are a credit to their breeders, they cannot fail to be an acquisition to the herd of any breeder on this side of the Atlantic. Intending purchased from the rub the 11th of September here the stock to have these before purchased will appear in the peat issue of this herd will appear in the peat issue of this hered will appear in the peat issue of this hered. Mr. Geo. Isaac, Bowmanton, Ont., im-

Mr. Robt. Beith, M. P., and nephew, Robert Fisher Beith, sailed recently from Boston to England to buy a Hackney stallion to take the place of Robin Adair II. and Alarm, which horses he recently sold to go to the United States. He also expects to bring out some young Clydesdale stallions. Mr. Beith expects to return early in September.

The American Aberdeen-Angus Breed-ers' Association has appropriated \$10,-500 of its funds to be offered as special and supplementary prizes at the seven-teen State, Provincial and other leading shows, including \$4,300 at the Chicago International, \$2,500 at the Kausas City Show and \$100 at the Toronto Industrial and \$100 at the Ontario Provincial Winter Show at Guelph.

The well-prepared and handsomely-bound catalogue of pedigrees of the Walton Grange herd of Shorthorns, the property of Mr. Walter Hazell, Ayles-bury, Buck, England, is received. It contains the pedigrees of 60 head of registered Shorthorns, representing many of the best English and Scotth families, the principal stock bull being a son of Mr. Deane Willis' Mountain Victor 67520 67520

Volume 12 of the American Aberdeen-Angus Herdbook has been received at Farm," Caledonia, Ont., writes: "Am Angus Herdbook has been received at this office through the courtesy of the efficient secretary, Mr. Thos. BicFar-lane, Harvey, Ill. It is a beautiful, well-printed and substantially-bound book, containing entries of 11,000 ani-mals from February, 1901, to May, 1902, showing a rapid increase in num-bers and in favor. The breed is evident-ly holding its own and steadily gaining ground in the United States.

The prizewinning five-year-old Hackney The prizewinning five-year-old Hackney stallion, Langton's Danegelt, is adver-tised for sale in this paper by Mr. E. C. Attrill, Ridgewood Park, Goderich, Ont. He is a horse of excellent type, breeding and action. He won first prize as a three-year-old at the Western Fair, London, in 1900, and was the reserve number for the championship. He comes from championship-winning stock in England, his sire and dam both being imported animals. His sire, Langton's Performer, by Garton Duke of Con-nateht, was a great prizewiner as was also his grandsire. The Duke of commer as was also his grandsire. The Duke, so that in every respect Langton's Uan with stands in the front rank of Hackney sires in Canada, and we are assured he can be bought well worth the money.

James Douglas, "Willow Bank Stock well satisfied with the results of my advertising in the 'Farmer's Advocate.' Wishing you success.

We regret to announce the death, on August 16th, of the famous pacing stallion and sire, Online 2.04, owned by the International Stock Food Company, of Minneapolis, Minn. Postmortem examination proved that he died of volvulus of the smaller intestines. This, of course, is sure death. and there was not a possible chance to save him, as about twenty feet of the intestine was twisted, which is very unusual. He is not only a great loss to his late owners, but the entire horseworld regrets his early death, as he was proving to be a phenomenal sire of first pacers. He had held the four-year-old stallion pacing record for eight years. and, although a young borse, he had seventeen in the 2.25 list and many more ready to enter.

THE FARMER'S ADVOCATE.

Sovereign Bank OF CANADA.

THE

CAPITAL	AUTHORIZE	ED,		\$2,000,000
CAPITAL	PAID-UP,	premium of 25		1,000,000
Reserve		_	_	180,000
HEAD OFFI	CE,			TORONTO
EXECUTIVE	OFFICE	ES,	-	MONTREAL

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Amherstburg, Ont. Clinton, Ont. Exeter, Ont. Milverton, Ont. Montreal, P. Q. Mount Albert, Ont. Newmarket, Ont. Ottawa, Ont.

Perth, Ont. St. Catharines, Ont. Stirling, Ont. Stouffville, Ont. Sutton, P. Q. Toronto, Ont. Unionville, Ont.

Interest allowed on deposits.

Sums of \$1 and upward received and interest allowed from date of deposit and paid to depositors twice a year. Special attention given to accounts of CHEESE

FACTORIES.

Farmers' sales notes negotiated. Prompt attention and courteous treatment accorded. Write for booklet to any Branch of the Bank.

D. M. STEWART, GENERAL MANAGER.





Largest Importers of Horses in Canada.

Letigot importation of Clydesdale stalions and mares and Hackneys will be at the Black Horse hitel, Toronto, on Friday, Aug. 29th, and will be on waluable horses, combining size, quality, breeding and action. Great care has been taken in the select ion of this consignment. We have imported a great many winners at the principal shows, which greats prove that we bring out the right kind of horses. We are in an ex-ellent position to offer buyers the best quality at most reasonable prices, having made our selection in person, and with great care, to meet the requirements of the Canadian trade. Parties desiring to purchase either stallions or mares, please write or call upon us. ON DALGETY BROS LONDON ONT

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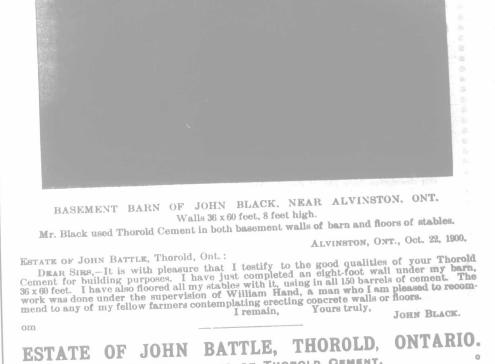
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DALGETY BROS., LONDON, ONT. om







MANUFACTURERS OF THOROLD CEMENT.

"We do not place our çement to be sold on commission."

660

\$5,000 <u>Reward</u>. Anybody can secure that amount who will prove that any letter or endorsement which we publish in any way, relative to the merits of Tuttle's Elixir is spurious r untruthful. It needs nothing but the truth to support it. It is undoubtedly the best veterinary premedy known to man. Used and Endoused by Adams Extense Contents

Tuttle's American Condition Powders -A specific for impure blood and all diseases arising therefrom. Aspecific for impure blood and all diseases arising therefrom.
 TUTTLE'S FAMILY ELIXIE cures rheumatism, sprains, bruises, etc. Kills pain instantly. Our 100-page book, every Experience." FREE.
 Dr. S. A. TUTTLE. 66 Beverly St., Beston, Mass. Beware of so-called Elixirs-neae granine bat Tutile's. Avoid all blisters; they offer only temporary relief, if any. LYMAN, KNOX & SON, Agenta, Mentreal and Terente, Canada.

Homecroft Stock and Dairy. Ayrahires, Chester Whites, B. P. Rocka, Write u-for best young bull in Canada. S me A 1 bull calves; also some beauties for young sows. See tha you look up our chickens. J. F. PARSONS & SON4, BARNSTON, QUE.

SHROPSHIRES.

I am offering for sale 1 imported stock ram, 14 yearling rams and two-year olds, 30 ram and ewe lambs, 10 shearling ewes, all in good condition. Prices reasonable. Price (reasonable, ABRAM RUDELL, Hespeler P. O., Ont,

GOSSIP

BUTTER TESTS AT TRING SHOW. In the one-day butter test at the an-nual show held in Tring Park (Lord Rothschild s), August 7th, the first prize in each of the two classes, under 900 lbs. and over 900 lbs. live weight, was awarded to Jersey cows, Capt. Smith-Neil's Tuddie Queen winning in the former class, with a yield of 41 lbs. 4 ozs milk, and 2 lbs. 13² ozs. butter, 108 days after calving. In the class over 900 lbs. weight, Dr. Watney's Sharab (Jersey) yielded 53 lbs. 14 ozs. milk and 3 lbs. 9³ ozs. butter, 128 days atter calving. The second wrize in this class went to Mr. Merry's Molly (Shorthorn), who gave 52 lbs. 2 ozs. milk, and 2 lbs. 15³ ozs. butter, 25 days in milk. In the milking trial at the same show, the first prize in class under 900 lbs. went to a Jersey cow which gave 36 lts. 10 ozs. milk, 166 days alter calving, and in the class over 900 lbs., a Lincoln Red cow won, with 75 lts. milk, 69 days after calving. BUTTER TESTS AT TRING SHOW.

A RECORD SALE OF BERKSHIRES.

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THE FARMER'S ADVOCATE.

The recently-published pamphlet an-nouncing the proliminary classification and prize list of the International Live Stock Exposition, to be held at Union Stock Yards, Chicago, November 29th to December 6th, 1902, shows a remark-abiy comprehensive classification, both in regard to breeding and fat stock, and, together with the donations of the va-rious breed associations, one of the most liberal prize lists ever offered in any country. In addition to the usual list of prizes for animals of the different ages by years, there are in most of the cattle classes sections for senior and junior yearlings and calves of each sex, and also senior and junior sweepstakes for both bulls and females, besides sub-stantial cash prizes for aged and young herds, and a calf herd, for the get of a sire, and the produce of a cow, and also for carload lots of fat cattle. In the classes for draft horses, sheep, and swine, the prize list of the International is in most cases liberally supplemented by the breed associations, making the offerings exceedingly attractive. The prospects for the show this year are very bright, and it will doubtless be the greatest aggregation of good stock ever seen in America. For the prize list and other information, address W. E. Skin-ner, General Manager, Union Stock Yards, Chicago.



FOUNDED 1866

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BUY A SEPARATOR UNTIL YOU HAVE SEEN THE

National

EXAMINE

The simplicity of the design. All wheels and bearings protected, be-ing perfectly safe in the hands of a child.

It has anti-friction ball bearings. Few parts to wash-only two pieces inside the bowl.

The **National** is made by The Ray-mond Mfg. Co of Guelph, whose success with the celebrated Raymond Sewing Machine is sufficient guarantee of the high finish and workmanship.

In 1901 five machines a day were manufactured. For 1902 the capacity is increased to 25 machines per day, showing the satisfaction given by the National in the past two years.

National in the past two years. The 1902 National contains all the strong points found in other separators, and is placed on the market with the guarantee of being the best and most up-to-date machine in every particular offered to the Western farmers to-day.

The National will well repay investigation by intending purchasers. National No. 1, capacity 330 to 350 lbs. per hour. National No. 1 A, capacity 450 to 500 lbs. per hour.

AGENTS WANTED IN UNREPRESENTED DISTRICTS.

The Raymond Mfg. Co. of Guelph, GUELPH, ONT. WE ALSO MAKE GOOD SEWING MACHINES.



THE FARMER'S ADVOCATE.



Young men and women expect to attend business college once only. In determining which school to attend, it is well to become possessed of reliable information. Any one of the following colleges will mail a circular to your address if you write for it :

The Federated Business Colleges of Ontario, Ltd.

The BRITISH AMERICAN BUSINESS COLLEGE, Y. M. C. A. Building, Toronto, Ont. D. Hoskins, Char. Acct., Prin. The CAWADA and HAMILTON BUSINESS COLLEGES. Hamilton, Ont. R. E. Gallagher, Prin. The FOREST CITY BUSINESS and SHOATHAND COLLEGE, Y. M. C. A. Building, London, Ont. J. W. Westervelt, Prin. The OTTAWA and METROPOLITAN BUSINESS COLLEGES, Ottawa, Ont. S.T. Willis and W.E. Gowling, Prins. **BRANCHES**: St. Catharines Business College, St. Catharines, Ont.

Berlin Business College, Berlin, Ont. Brantford Business College, Brantford, Ont. Galt Business College, Galt, Ont. Sarnia Business College, Sarnia, Ont.

The above Colleges and Branches are under the direction of the most successful business teachers in Canada, and represent the highest achievements in practical education in this country. To attend a Federated College is to be eminently satisfied with the result. 25,000 graduates to-day in business life. The Fall Term begins on September 2nd. C. R. M°CULLOUGH, SECRETARY. HAMILTON. - ONTARIO. Mr. Wm. Willis, Newmarket, Ont., breeder of registered Jersey cattle, Cots-wold sheep and Vorkshire swine, makes a change in his advertisement, in which he offers for saie Jersey heifers from 6 months to 2 years oid, and a year-ling bull stred by a grandson of the noted cow, Adelaide of St. Lambert, whose record of St Ibs. milk daily stands unexcelled by any of the breed in the work. Cotsword famils and year-ings and vorsaire pigs, of either sex, are also included in his obserings.

GOSSIP.

ings and Yorkshire pigs, of either sex, are also included in his oberings.
Park Hill herd of Tamworth hogs are known from british columbia to the United States. They are the property of Messrs. John Hord & Son, Parshill, Ont., and at the present time there are about 70 head or imported and homebred animals on the farm. This farm is situated in the County of Middlesex, about 24 miles east of Parshill station on the main line of the G. T. R. Mir. Hord s chief stock boar is imp. Starlight, bred by Joan Norman, Cliff House, Tamworth, Eng. He was chosen and imported on account of his perfect type, and comment is needless. The next in service is Pan-American 1st, so named on account on the swinning 1st in his class at the Pan-American Exhibition last year, which speaks louder than words of his form and quality. The 3rd in service is boid Hoy, winner of 1st prize at Toronto in 1900. A choice iot of sires indeed 1 in brood sows, there is rights Lady, hip, a cracker and no mis.ake; then there are two sows in breeding, out of Middleton Minulus 12, sired by 0. A. C. 115, a Toronto winner, and several others, all the kind that Mr. Hord is noted for keeping. In younger stock that is for sale are several yoing sows out of imp. English Lady and by Pan-American 1st—smooth, sweet young sows they are—and a number of ethers of both sexes, out of winning dams and sired by imp. Starlight. Mr. Hord is also showing a splendid flock of Embden geese, which can be bought right, and there is no better bred geese than the Embden.

right, and there is no betch block game than the Embden. Mr. A. C. Hallman, Breslau, Ontario, writes: "I have at present the finest lot of Holsteins on hand I ever had, mated with my imported herd bull, Judge Akkrum De kol 3rd. My su-perior bred cows are giving very satis-lactory results, quality being stamped on every one of the offspring. I have. several heifers milking now, that are very promising. My herd now numbers over 30 head of very select stock, such as will take the eye of every lover of good stock and choice breeding. I pur-pose to make a drait of my herd and exhibit at Toronto, to give intending purchasers a chance to compare the quality of my stock with other herds. My other stock bull, Sir Paul Alvino De Kol, promises well and is the right bull to mate with the get of my old bull. My Tamworths are also holding their own, and will compare well with the best in the country. I have long been aiming to breed an ideal bacon pig. and consider I am nearing that mark. I have a number of young pigs on hand, and lots more to come. I hope to meet my many friends again at Toronto."

and consider 1 am nearing that marking and tots more to come. I hope to meet my many friends again at Toronto." One of the choicest herds of Scotch-bred Shorthorn cattle to be found in northern Ontario is on Montrose stock farm, the property of J. W. Hartman & Son, whose beautiful and well-appointed farm lies eight miles south-west of Mea-ford Station, G. T. R., and whose P. O. is Elm Hedge, Ont. For a great many years Mr. Hartman has paid particular attention to the breeding of Shorthorn cattle and Berkshire hogs, and by care-ful selection of breeding of Shorthorn cattle and Berkshire hogs, and by care-ful selection of breeding of Shorthorn cattle and Berkshire hogs, and by care-ful selection of breeding of Shorthorn cattle and Berkshire hogs, and by care-ful selection of breeding of Shorthorn cattle and Berkshire hogs, and by care-ful selection of breeding of Shorthorn cattle and Berkshire hogs, and by care-ful selection of Dreeding attention the favorable comparison with any in the country. The families represented are Nonparelis, Urys, Mysies, Isabellas, Minas, Strawberrys and Matchlesses, at the head of which is the splendid stock bull, May Duke 21048, sired by Clipper, breed by Hon. John Dryden; got by Imp. Sus-sex, and out of Coquette, by Imp. Baron Surmise, gr.-d. Lup. Cornflower. The dam of May Duke was Mildred 4th 22941, by imp. Hospodar. He is a roan bull, of massive build, very evenly quar-tered, a broad, level back, great heart-girth, well-sprung rib, and a sire of the first rank. One of the choicest cow is imported bulls. An Isabella-bred cow is inported bulls. An Isabella 2485. Ju-y imp. Tofthills; dam Imp. Mina Lass, by imp. Tofthills; dam Ishbel 26332, by imp. Tofthills; dam Ishbel 2



Mr. W. A. Shaw.

MR. W. H. SHAW is one of the leading educationists of the Dominion, and in a short period of ten years he has succeeded in building up the largest, best equipped, most influential and widely-patronized business training school in Canada—THE CENTRAL BUSINESS COLLEGE OF TORONTO. His college is noted for its thorough and practical work, and very many farmers' sons and daughters attend his school each year, where they obtain a technical knowledge of commercial affairs which enables them to accept good positions in business houses or to better succeed in caring for the business end of the agricultural interests of our splendid country. His annual catalogue, containing the faces of 320 young men and women in attendance last April, is most interesting, and is sent free upon application. om

661



durable, easy to turn and clean. Five Simple, durable, different dairy size

WRITE FOR CIRCULARS AND INFORMATION.

AGENTS WANTED.

C. RICHARDSON & CO., P. 0. Box 1048. - - St. Mary's, Ont.



A school that takes front rank among the best business colleges on this continent. Proof of this statement may be found in our catalogue. Write for one.

ELLIOTT, PRINCIPAL.

NOTICE. BRITISH COLUMBIA FARMS are advertised in this paper by the Settlers' Association, box 540, Vancouver, B. C. Read their advertisement, which sets



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We send our Illustrated Catalogue free on receipt

We send our illustrated Catalogue free on receipt of 2c, stamp to help pay postage. With it you can choose your equipment for Field, or In-door sporte, just as well as by calling at any store and cheaper—as we make special prices for our cata-logue goods, and our tradels so large we can sell you lamost as cheap as some dealers pay for their goods. GUNE, Revolvers, RIFLER, Ammunition, SHOOTING CLOTHES, Targets, TRAPS, Golf, FOOT BALL, Boxing Glores, PUNCHING BAGS, Foils, SKATES, Skating Boots, SNOWSHOES, Moccasins, TOBOGGANS, Skis, HOCKEY SUPPLIES, Billiards, PING PONG, etc. T. W. BOYD & SON MONTREAL, P.O. T. W. BOYD & SON MONTREAL, P.Q.

Shorthorn Cattle, Lincoln Sheep

Imp. Prime Minister at head of herd. Imp. Clippers, Miss Ramsdens, and other Scotch families. Lincolns won more than half the money and first for flock at the Pan-Ameri-can; International, Chicago, 1901 and 1902.

J. T. GIBSON, om DENFIELD, ONT.



FOR SALE : A choice lot of this FOR SALE: A choice lot of this year's bull calves—reds and roans— from good milking dams; Bates and Scotch breeding. Also cows, heifers and heifer calves. Young pigs, two months old, of the long

bacon type. F. BONNYCASTLE & SONS, Campbellford, Ont.

Imp. Shorthorns and Lincolns

A. D. MOGUGAN, RODNEY, ONT., P. O. AND STA.,

Now offers one year-old roan bull, out of Imp. Day-spring; sire Abbotsford 14946; a prizewinner sure. Also a few choice heifers out of imp. and home-bred dams, and ram lambs out of imp. Dudding ewes. o

CHOICE SHORTHORNS. 4 bulls, from 5 to 17 months old, sired by Aahburn Duke ; also a few heifers, sired by Indian Duke ; for sale. -0

J. R. HARVIE, Orillia P. O. and Station.

W. J. WALKER, EADY P. O., ONTARIO,

BREEDER OF

Scotch and Scotch - topped Shorthorns. Barred Plymouth Rock fowls, and Bronze turkeys.

R. R. station : Coldwater. G.T.R. Write for prices.

ASHTON FRONT VIEW STOCK FARM.

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

SHORTHORNS

Soutch and Soutch-topped. War Eagle =27609 = at head of herd. Young bulls, cows and heifers for sale. Ry. station : Coldwater, Midland branch, G. T. R. Write for prices. om S. DUNLAP, Eady P 0., Ont.



GOSSIP. A first-class stock and grain farm in Wellington County, Ontario, is adver-tised for sale or to rent, by Mr. James Hunter, Alma P. O., Ont. This is the well-known Summerside farm of J. & H. Hunter, Shorthorn breeders, whose cat-tle for many years figured prominently in the prize list at Provincial exhibi-tions. It has been kept in a high state of fertility, a large herd of cattle having been fed on the farm for many years. It is only about 2 miles from Alma station on the G. T. H., and 23 miles from the City of Guelj h. The buildings are first-class and the farm is in every respect a most desirable one. Parties interested should write Mr. Hunter for particulars or go and see the farm.

GOSSIP.

interested should write Mr. Hunter for particulars or go and see the farm. Maple View Stock Farm lies in the County of Middlesex, about three miles west of Thorndale station, and is the property of Mr. R. H. Harding, breeder of Dorset Horned sheep, Improved Ches-ter White hogs, and Ayrshire cattle. Mr. Harding's flock of Dorset sheep numbers 75 head, of imported and Canadian-bred animals. Among the imported ewes are a number of Royal winners, bred by Leonard, Cole and Attrill, all of the Isle of Wight, Fing. This season's lambs are sired by imp. Tranquility 978, bred by Rutherford Stuyvesant, Allamuchy, New Jersey, and a number of them are out of Royal winners, as well as out of winners at Chicago, Buffalo, Toronto, London, and Guelph. Mr. Harding has a particularly nice bunch that he is fitting up for the fall shows, including lambs, shearlings and two-shears. This lot will be hard to turn under. There are on hand, for sale, all told, 40 heed, including a few one and two year old rams and ram lambs, the balance being ewes one and two years old, and lambs. At the head of the merd of Chester White hogs is the model boar, imp. Dandy 1380, bred by Vanderslice Bros. Cheney, Nebraska. Dandy is, without doubt, one of the best bacon-type Ches-ter White hogs alive. His form is fault-less, while at the same time he shows abundance of bone and substance. He was never shown but once, and then at Omaha, when he carried off the first prize. The breeding sows were all select-ed for their perfect type, and are certain-ly a choice lot. There are at present only a few on hand for sale, but they are choice ones, of both sexes. In Ayr-shires, Mr. rlarding is offering for sale two heifers about five months old, sired by Robin Ruff 10501, and out of Hattie Scott, by Sir Walter Scott 9725, and Manda Lee, by the same sire. These young heifers are a choice pair, showing perfect dairy conformation and are in splendid condition, and will be sold well worth the money. Write Mr. Harding, to Thorndale P. O.

epiendid condition, and will be solid weil to Thorndale P. O. Few farms in Canada are better or more favorably known than Brookbank stock farm, the property of Mr. Geo. Rice, breeder of Holscouty of Oxford, about 6 miles south of outroits station on the Strattor 4. Port Dover branch of the G. T. R. Brookbank farm is essentially a dairy farm and it is very doubtful if there is another farm in the Provinces on well equippeds for the successful carrying on of cheater and in the Provinces on well equipped for the manufacture of both these lines being installed in buildings specially erected for the manufacture of both these lines being installed in buildings specially erected for the successful carrying on of cheater and facture of both these lines being installed in buildings specially erected for the adaption, steam pipes are run from the boiler to the stable, by which all the drinking water for the catle is childed and the feed steamed. Mr. Rice's herd at present numbers 35 head of Advanced Registry cattle, at the head of which is that massive buil. Count Calamity Jans, and who won the Provincial Test for Kee has also purchased that royally-bree world's champion two-year-old heiler, is 27.07 Ibs. The dam of Alta Posch and, therefore, the grandam of Sir Pietertje Posch, its Son of the world's champion two-year-old heiler, is 27.07 Ibs. The dam of Alta Posch and, therefore, the grandam of Sir Pietertje Posch, its Son of the world's champion two-year-old heiler, is 27.07 Ibs. The dam of Alta Posch and, therefore, the grandam of Sir Pietertje Posch, its Altje Posch 4th, whose record is 116 Ibs. milk, 6.79 Ibs. The dam of Alta Posch and therefore, the grandam of Sir Pietertje Posch, its Altje Posch 4th, whose record is 116 Ibs. milk, 6.79 Ibs. Alta Posch, whose 7-day butter record is 21 Bis. Divers, He is sired by worthereall 3rd's Sir Pietertje. For glit-whother Reeding, this bull stands second to poling alive. Coupled with such noted cows as those mentioned below, Mr. Rice new ranks as one of the foremost holdstei



FARM ADJOINS EXETER, ON THE LONDON AND WINGHAM BRANCH OF THE G. T. R. 30 MILES NORTH OF LONDON.

Shorthorns Scotch

BREEDING FEMALES ALL IMPORTED.

Imp. Golden Drop Victor our present stock bull. Eleven young bulls and some young cows for sale at reasonable prices.

> SON. H. CARGILL &

Cargill Station, G. T. R. CATALOGUE FREE. OM

Cargill, Ontario.

JO BREEDER AND IMPORTER OF

SHORTHORNS ONLY.

FOR SALE: Imported bulls and bull calves. Home-bred bulls and bull calves, from imported cows and by imported bulls. Home-bred bull calves. A large and excellent lot of young cows and heifers of various ages. -om GREENWOOD, ONT., P.O. AND TELEGRAPH OFFICE.

RAILWAY STATIONS :

PICKERING, G. T. R., 22 MILES EAST OF TORONTO. CLAREMONT, C. P. R., 28 MILES EAST OF TORONTO.

Spring Grove Stock Farm.

Shorthorn Cattle

Lincoln Sheep. HERD prize and sweep-stake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by the Marr Missie bull, Imp. Wan-derer's Last, last of the

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get of the great sire, Wanderer, of the Cruick-shank Brawith Bud tribe. High class Short-horns of all ages for sale. Also prisewinning Lin-colns. Apply on

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REINFORCED BY RECENT IMPORTATIONS of 2 bulls and 20 oows, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows last year. Imported Douglasdale of Dam of Aber, cham-pion at the Pan-American, heads the herd. Repre-sentatives of this herd won the first herd prize at the arbititizing atthe exhibitions at-

Toronto, London and Ottawa in 1900, and at the Pan-American in 1901.

Come and see or write for prices.



Young Bulls and Heifers for Sale, bred from High-class Imported Stock.



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W. G. HOWDEN, COLUMBUS P. O. om SPRINGBANK FARM. Shorthorn Cattle, Oxford Sheep, and Bronze Tur-keys. Young bulls for sale. om JAS. TOLTON, WALKERTON, ONT. SPRUCE HEDGE SHORTHORNS. We are offering females of all ages. Among them are prizewinners and youngsters that are sure to win. JOHN MCKENZIE, Keward P.O. and Chats-worth Station, C P.R. FRED. RICHARDSON

Smith & Richardson, Columbus, Ont.,

Will return from Scotland about Aug. 20 h with six Clydeedale stallions, including Hopewell (11375). full brother of the great Glasgow winner, Hiawatha, and Lavender (11349), out of the same mare as Royal Cairnton, the Chicago three-year-old winner in 1901, and Pioneer 11131, sired by Sir Arthur, owned by Whitby Clydeedale Association. Also a pair of two-year-old fillies for Mr. George Gormley, Unionville. Unionville.

For Sale: Very heavy, massive cows of Cruick-shank and Bates breeds, also two-year-old heifers in calf. Bull seven months old, dark red (Jack's the Lad, No. 42922). Dark red heifers. Also young calves of both sexes. JOHN REFARLANE, DUTTON, ONT.



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of serviceable age for sale ; also females of all ages, Roans and reds. Prices right, -o

B.&C. Parkinson, Thornbury P. O. & Stn., G.T R.

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Jersey

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KELSO, P. Q.

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Winchester, C. P. R. Morrisburg, G. T. R.

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664

SHORTHORNS. This herd represents such families as Mysies, Non-parelis, Crimson Flowers, Languishes sutterflies, and others, and is headed by my now famous stock bull, Spicy Robin, grandson of Royal Sailor (im-ported) and Ruby Versgarth, and bred by J. & W. B. Watt, Salem. Quite a number of young stock of o Watt, Salem. Qu either sex for sale.

ERIN SHIPPING STATION, C. P. R.

GREEN GROVE SHORTHORNS :

I am now offering a few heifers, Clarets, Floras, and one Missie; also a choice year-old bull, by Aberdeen of Markham. om

W. C. MILSON, GORING P.O. and MAREDALE STATION.

SHORTHORNS (imported) One imported and one Canadian-bred bull, A few cows and heifers.

THOS. RUSSELL. EXETER. ONT.

LEONARD BURNETT, GREENBANK, ONT., BREEDER OF Shorthorn cattle and Shropshire sheep

SHORTHORNS & CLYDESDALES.

For sale, two 2-year-old Shorthorn bulls, one by Imp. Royal Prince, the other by Royal Duke 33577. Good ones. Also one Clydesdale stallion, coming 2 vears old. W. D. PUGH, CLAREMONT P. O. & STATION

FOR SALE

Three Shorthorn bulls of first-class breeding, sired by Soot'and's Fame (imp.). Color: 2 red, 1 roan. Prices right.

F. A. GIRDNER, - BRITANNIA, ONT.

For Sale, old, imported in dam; bred by A. Ianes, Aberdeenshire, Scotland; got by Prince Char-lie; dam Victoria, by Matadore. Roan bull, 16 months, got by Orange Duke (imp.); dam Victoria, by Matadore. Also I white, 2 roan and 2 red bulls, from 5 months to 15 months old; got by Orange Duke (imp.); dams Prime Minister and imp. heilers from Challenge-bred cows. W. B. OAMPHELL, 0 Campbelleroft, Ont.

BONNIE BURN STOCK invited. FARM,

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STOCK - RAISERS.

PROFS. A. & M. DAY'S ENGLISH TONIC Powders furnish all requirements for the cure and prevention of diseases of the horse, cattle, hog, sheep, and poultry. A sepa-rate package for each kind of stock. Full directions on each package for preparing a Tonic Food for fattening purposes. Each package of powder is sufficient to prepare 25 to 40 pounds of Tonic Food. 35 cents a package. For sale in most towns : if not in your town, write us for free sample. Mention kind wanted. om wanted.

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Jerseys for Sale. Yearling bull and bull eight months old. Registered cows and heifers of choicest breeding and individuality. Some fresh and others coming in scon. 100 head to choose from.

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THE ORIGINAL Non-Poisonous Fluid Still the favorite dip, as proved by the testimony of our Minister of Agri-culture and other large breeders. Kills ticks, maggots; cures scab; heals old sores, wounds, etc., and greatly increases and improves growth of wool. For sheep.

Cattle, horses, pigs, etc. Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.

Prevents the attack of Warble Fly.

Heals saddle galls, sore shoulders, ulcers, etc. Keeps animals free from infection.

No danger, safe, cheap, and effective Beware of imitations,

Sold in large tins at 75 cents. Sufficient in each but in large time at so contest. Summers in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to breeders, ranch-men, and others requiring large quantities.

SOLD BY ALL DRUGGISTS. SEND FOR PAMPHLET.

Robert Wightman, Druggist, Sound Sole agent for the Dominion. ----088

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JOHN BRYAN & SON, Southleigh, Witney, Oxon. — One of the oldest registered flocks of pure-bred Oxford Downs. Annual sale of rams. Oxford ram fair. Rams and ewes for sale at home. Inspection invited, o

HAMPSHIRE DOWN "RESERVE" FOR CHAMPION IN THE SHORT-WOOL CLASSES, SMITHFIELD, LONDON, 1901. Splendid Mutton, Good Wool, Great Weight.

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THE FARMER'S ADVOCATE.

EUROPEAN ADVERTISEMENTS.

REGISTERED Southdown Sheep, Suffolk Sheep AND Berkshire Pigs.

The Generalitie Pigg. The Generality of their plood, typical character, the best show of their plood, typical character, the best and most perfect specimens of the different the best and most perfect specimens of the different the best and most perfect specimens of the different the best and most perfect specimens of the different the best and most perfect specimens of the different the best and most perfect specimens of the different the best and most perfect specimens of the different the best and most perfect specimens of the different the best and most perfect specimens of the different the best and most perfect specimens of the different the best and most perfect specimens of the different the best and most perfect specimens of the different the best and typical character, have also the great the bows during 1900 and 1901 at the leading the bhows, in the latter year, besides winning the bhows, etc. The Showh medals for best Southcown withfield Show, two medals for best Southcown withfield Show, the latter year, besides winning the ohampion prize, gold medals and breed rup at the ohampion prize, gold medals and breed with own withfield Show, the latter year, besides winning the ohampion prize, gold medals on best Southcown withfield Show, the bast second and numerous minor awards withfield show, etc. The Showh endals for best Southcown would be difficult to be been won. In fact, for involution merit, pedigree, and purity of breed, and how one difficult to be been which to perpect the south be difficult to be been which to perfect the south be difficult to be been which to perfect the south be difficult to be been which to perfect the south be difficult to be been which to perfect the south be difficult to be been which to perfect the south be difficult to be been which to perfect the south be difficult to be been which to perfect the south be difficult to be been which to perfect the south be difficult to be been which to perfect the south be difficult to be been which

H. J. GARROD, Cheveley, Newmarket, England.

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One of the largest flocks in Oxford Down Vice of the largest nucles in Oxford Down Flockbook. Numerous prizes obtained for ram lambs at principal shows. Rams and ewes always on sale.

FAMOUS ALL OVER THE WORLD

ALFRED MANSELL & CO.,

LIVE STOCK AGENTS AND EXPORTERS, SHREWSBURY.

Cables-Sheepcote, London.

This season's lambs; wooled all over, and of superior quality; from imported and home-bred ewes. Orders booked. A few GUERNSEY and AYRSHIRE bull calves. Prices reasonable. Satisfaction guaranteed. calves. Address Isaleigh Grange Stock Farm, Danville, Que. SHROPSHIRES We are now offering a number of two shear rams and ram lambs — Mansell strain; good ones and well covered. Price right. **ROWAT BROS.** covered. Price right. ROWAT BROS., o Hillsdale P. O., Elmvale Sta Shropshire Sheep, and Chester White Swine of good bacon type. Write for prices. W. E. WRIGHT, GLANWORTH. ONT. "SUNNYSIDE STOCK FARM." This season I am offering for sale Secretary of the National Sheep Breed-ers' Association, SHROPSHIRE lam's of both sexes. Also shearling ewes and 2 shearling rams, Prices right and quality guaran-teed. o GEO. HINDMARSH, Ailsa Craig, Ont. Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society. SHROPSHIRES FOR SALE. Stock ram (two-shear), shearling and ram lambs; also ewes different agrs, good blocd, Prices reasonable. Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on com-mission; quotations given, and all enquiries J. F. BRUNTON. TARA, ONT. Shropshires 40 FOR SALE. Shearling and two-shear rams, also one three-shear ram. Shearling ewes, and ram and ewe lambs by Imp. Thomas ram. C. P. R. Station. Streetsville Jct. 0 N. W. SWITZER, Streetsville, Ontario. Address: FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W. - 360 Robert W. Hobbs,

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, Secre-

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Tiverton, Ont.

SHROPSHIRES We have for sale sixteen Shropshire yearling rams and 12 ewes, from Cooper and Mansell ewes, and sired by Mansell ram, also an extra good lot of ram lambs, JOHN MILLER & SONS, BROUGHAM, ONT. CLAREMONT STATION, C. P. R. FAIRFIELD LINCOLNS Imported ewes and lambs. Can supply -080 show flocks. J. H. PATRICK, ILDERTON, ONT., CAN.

SHROPSHIRES FOR SALE. — Shearling rams, shearling and older ewes, about 50 head all told. All registered or eligible. Low-set, well covered, in fine condition and form. Sires from Campbell and Dryden flocks. MALCOLM MCDOUGALL, om



PRINCIPAL AWARDS GAINED BY SUFFOLKS AND SUFFOLK CROSSES IN OPEN COMPETITION AGAINST ALL BREEDS, 1898 TO 1901.

SCOTTISH NATIONAL FAT STOCK SHOW— Championship of the yard Reserve number for ditto	1898	1899	1900	19 01
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SMITHFIELD CLUB SHOW (Careass Competitions)- Centenary gold medal (best careass in the yard) Reserve number for ditto First prize-Short-wool lambs Second prize- Third prize- Third prize- Second prize- Second prize- Second prize- Third prize- Third prize- Third prize-	1898 1898 1898 1898 1898 1898 	1899 1899 1899 1899	1900 1900 1900 1900	 1901 1901 1901 1901 1901 1901 1901
AN UNEQUALLED REC	CORD.			

Pamphlet, with full description of the breed, show-yard honors, live and dead weights of rams, ewes and lambs, can be obtained on application to 0

ERNEST PRENTICE, Secretary Suffolk Sheep Society, IPSWICH, ENGLAND.





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THE FARMER'S ADVOCATE.

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Imported Chester Swine. Our present offering is both sexes, not akin, as good as the country produces. Also eggs from B. P. Rocks, B. B. and C. I. Games, S. G. Dorkings, G. Sebright Bants, Mammoth Pekin ducks – all prize-winners-\$1.50 per 13. Six extra B. B. G a m e cockerels or pairs for sale.

GEO. BENNETT,

CHARING CROSS P. O. AND STATION

Our Improved Chester White Pigs are choice this spring. With pedigree, \$5 each. We have also, among others, a seven months' Ayr-shire bull, among the best in Canada. o J. F. Parsons & Sons, Barnston, Quebec.

Imported Poland-China Hogs. We are offering something extra choice, of both sexes, any age (pairs not akin), from imported stock, and of the true type. Easy feeders, rapid growers. ROBT. L. SMYTH & SONS, om Fargo P. O. and Station, M. C. R.

YORKSHIRES AND POULTRY.

Young pigs, 3 weeks to 3 months old (bacon type), easy feeders, strictly choice. Winners for fall fairs in young White Wyandottes, Barred Plymouth Rocks (Hawkins strain) and White and Brown Leg-horns—something extra. Also pedie reed collies. om A. B. ARMSTRONG, Codrington, Ont

YORKSHIRES FOR SALE. Boars fit for service, sows in farrow and ready to breed, and young stock on hand. Prices reasonable.

WM. HOWE. om NORTH BRUCE, ONT. BRUCE CO.



RIPPLEY'S COOKERS Are now made in Can Are now made in Car ada, saving duty and freight for our custom-era. Made of boiler steel. No flues to rust or leak, Will cook 25

dorsed by the following Canadian breeders and many others: Brethour & Saunders, Burford; W. D. Flatt, Hamilton; D. C. Flatt & Son, Millgrove; H. J. Davis, Woodstock; Ontario Agricoltural College, Guelph; also James Boden, Graham Bros., Newton & Gosh, J. A. McDonald, J. P. Connley. Prices, \$10 to \$45. Took first premium at Toronto and London faire. Catalogue and prices mailed free. Address: BIPPLEY HARDWARE COMPANY. RIPPLEY HARDWARE COMPANY.

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Dairy Business for Sale.

Dairy Business for Sale. The largest and most prosperous retail dairy business in Canada is offered for sale, doing a cash business of about eighty-five thousand dollars a year; could easily be doubled; select trade only; established eleven years at Toron-to. The equipment (including new cold-storage plant) is perfect and up-to-date. Owners retir-ing. Price, twenty thousand dollars, or would exchange for farm. Profits would pay for it in three years. Excellent system for operating the business. A magnificent investment. For all information, address Fred. R. Ginn, Toron-advt.



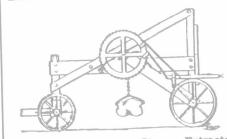
LINE STEAMSHIPS DOMINION FOUR Montreal to Liverpool. PASSENGER Boston to Liverpool. BERVICES: Boston to Mediterranean.

These services are maintained by large and fast steamers with midship saloons, electric lights and every convenience to make the voyage enjoyable. Rates of passage are very moderate, and we would ask intending travellers to apply for all information to a local agent of the company, or to

RICHARDS, MILLS & CO., 77 STATE ST., BOSTON. 69 DEARBORN ST., CHICAGO.

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The New Stone and Stump Extractor brevetted by Lemire. Capable of lifting 18,000 pounds. Has no equal for lifting and carrying stones, etc., for placing stones so as to build up fences to 5 feet high, and leave the ground in a condition fit for mowing and reaping machines. After the hooks are adju-ted on the stones, the only thing to do is to pull the lever. You can lift up a thing, carry it and place it on a stone fence in 10 minutes. The agri-cultural societies and clubs of farmers should all buy it. Price moderate. For complete details address-John Amiraux, 40 Laasdowne Ave., To-ronto, Ont. This stone extractor is guaranteed for the extraction and transportation of 40 to 50 stones a day, fixed in fences.





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The MCGILL MONARCH TREAD POWERS are The MCGILL MONAKCH TREAD FOWERS are the best general-purpose Farm Powers on earth, and are the only Powers made having Angle Steel Track, Cold Rolled Steel Shaft, 7-inch Travellers, Solid Maple Lags, with Brake entirely independent of Band Wheel. A Patent Governor or Speed Regulator with each Machine. 0

A. M°GILL & SON, CHATSWORTH, ONT.

Oil Cure for Cancer.







GOSSIP.

Hog cholera made its appearance recently on four farms in Westminster and London Townships, Middlesex Co., Ont. Dr. J. H. Tennant, V. S., Official Inspector, who took the outbreak in charge, found it necessary to cause the slaughter of some 80 infected animals.

At the auction sale last month of 100 head of Yorkshire hogs from the herd of Sir Gilbert Greenall, Walton Hall, England, an average price of \$38 was obtained. The top price was \$110, tor a boar.

Mr. Jas. Bowman, Elm Park Stock Farm, Guelph, Ont., writes : " Our Suffolk sheep have arrived from England. They were bred by Earl of Ellesmere, Stetchworth, Suffolk ; decidedly the best flock in England. We have good shearling rums and ran lambs for sale, and can also fill orders for ewes. We nave also been making a fresh importation of Aberdeen-Angus cattle, and now have a consignment of good ones in quarantine. Some of these as well as choice home-bred animals will be for sale."

The attention of lovers of high-grade harness horses is directed to announcement on page 657 of this issue, offering for sale the chestnut Hackney stallion, Langton's Danegelt (336) and = 91 =, owned by Mr. Edward C. Attrill, Goderich, Ont. As the engraving which appears on page 637 indicates, he is a very showy lorse, with breeding to back him, being descended from champion stock in England, both sire and dam being imported. He was bred by the famous Hackney breeder, Mr. Fred C. Stevens, of Attica, N. Y.; sired by Langton's Performer (4844), by Garton Duke of Connaught; dam Lady Danegelt (8036), by Danegelt (174). Being but five years old, he is just in Lis prime. The offering will undoubtedly attract attention, Mr. Attrill is also placing within reach of horse breeders a number of registered Hackney mares.

Mr. W. S. Carpenter, Simcoe, Cnt, breeder and importer of Shropshire sheep, in a recent letter states : " My imported ram, purchased at W. F. Inje's sale, has just arrived, having been released from quarantine at Athenia, N.J. This sheep will be a valuable acquisition to the flock as a stock ram. He has been very successful in the prizering, being second at Oxfordshire Show (Witney) ; commended at Nottinghamshire; second in pen of five, Shropshire & West Midland (Shrewsbury); second, Royal Counties (Reading); first and champion, Herefordshire & Worcestershire (Hereford); third in pen of five, Leicesterslire Show (Leicester); third in pen of five, R. A. S. E. (Carlisle). He is a very even sheep, splendid back, and

THE FARMER'S ADVOCATE

A BENEFIT TO FARMERS.

The benefits that will undoubtedly result to farmers from the recent incorporation of the International Harvester Company, which took over the business of the five leading harvester manufacturers, have probably not been considered by a large portion of the farming community.

The economical necessity of a consolidation of the interests of manufacturers and those of their farmer customers must be apparent to anyone who understands the present situation.

The increased and increasing cost of material, manufacturing and sellingthe latter in consequence of extreme and bitter competition between manufacturers and their several selling agents has made the business unprofitable.

The two alternatives left for the manufacturers were either the increasing of the prices of machines or the reduction of the cost of manufacture and sales. The latter could only be accomplished by concentrating the business in one company.

As can readily be seen, the forming of the new company was not a stock jobbing operation, but a centering of mutual interests. There is no watered stock; the capitalization is conservative and represented by actual and tangible assets. There is no stock offered to the public, it having all been subscribed and paid for by the manufacturers and their associates.

The management of the International Harvester Company is in the hands of well-known, experienced men.

The officers are: President, Cyrus 11. McCormick ; Chairman Executive Commiteee, Charles Deering ; Chairman Finance Committee, George W. Perkins; Vice-Presidents, Harold F. McCormick, James Deering, Wm. H. Jones and John J. Glessner; Secretary and Treasurer, Richard F: Howe. The members of the Board of Directors are as follows: Cyrus Bentley, William Deering, Charles Deering, James Deering, Eldridge M. Fowler, E. H. Gary, John J. Glessner, Richard F. Howe, Abram M. Hyatt, William H. Jones, Cyrus H. McCormick, Harold F. McCornlick, George W. Perkins, Norman B. Ream, Leslie N. Ward, Paul D. Cravath.

The International Harvester Company owns five of the largest harvester plants in existence : The Champion, Deering, McCormick, Milwaukee and the Planoplants that have been producing nearly or quite 90 per cent. of the harvesting machines of the world.

It also owns timber and coal lands, blast furnaces and a steel plant; it hes a new factory in the process of construction in Canada.

It is believed that the cost of producing grain, grass and corn harvesting machines will be so reduced that the present low prices can be continued, and that consequently the results cannot be otherwise than beneficial to the farmer. To maintain the present prices of these machines means to continue and increase the development of the agriculture of the world, for no one cause has contributed or can contribute more to this development than the cheapness of machines for harvesting grains.-Advt. For Sale, Jersey cow, Lurline W., A. J. C. C., No. 147,498, granddaughter of Exile. dam St. Lambert's Beauty. C. P. GEARY. - ST. THOMAS. dam St. Lambert's Beau C. P. GEARY. SHROPSHIRES. For sale 8 shearling rams, 12 shearling ewes, a number of 2- and 3-year-old ewes and this year's lambs; a low-down, well-covered lot. 0 C. H. ROWE, ORILLIA P. O. and STATION. LIVE STOCK EAR LABELS. Send for price list or see me at the Toronto Fair during the second week. R.W. James, Bowmanville, Out

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Here is a tempting list of Orgaus and Pianos. Every instrument is guaranteed to be in good condition.

Our 50 years' standing insures our out of town buyers the best of treatment, and as complete satisfaction as if they

bought in person at our warercoms.

Bargains in Square Pianos.

(1) Jenny & Sons, New York, handsome square piano in elegant case, 73 octaves, carved legs; attogether a beautiful instrument. Reg-ular price, \$350 our special price, \$175. \$10 cash and \$6 a month.

(2) Steinway & Sons square piano, rounded corners, carved legs and lyre, 7 1-3 octaves; in elegant condition. Manufacturers' price, \$550; our special, \$185. \$10 cash and \$6 a month.

(3) Kranich & Bach square piano, in hand some case, beautifully carved and in good condition. Manufacturer's price, \$475; our special price, \$175. \$8 cash and \$6 a month,

(4) Gerard Heintzman square piano, in fine condition. A beautifully-toned instrument. Manufacturers' price, \$375; our special price, \$150. \$10 cash and \$5 a month.

Bargains in Upright Pianos.

(1) Newcombc upright piano, medium size, walnut case, carved panels and continuous hinges. 7 1.3 octaves and 3 pedals. Manufac-turer's price, \$385; our special, \$250. \$10 cash and \$6 a month.

(2) Heintzman & Co. upright piano, medium size, elegant case, carved panels, 7 octaves. Almost as good as new. Regular price, \$350; our special, \$245. \$10 cash and \$6 a month.

(3) Dominion upright piano, large size, fancy rosewood case, beautifully-carved panels, 7 1-3 octaves, Manufacturer's price, \$475; our special, \$255. \$12 cash and \$5 a month.

Bargains in Organs.

(1) Karn organ, high back, mirror, 5 oc-taves, 9 stops, 3 sets reeds, treble and base couplers, 2 knee swells. Regular price, \$115; our price, \$47. \$6 cash and \$4 a month.

(2) Wilcox & White, high back, 11 stops, 5 octaves,3 sets reeds, treble and base couplers, grand organ and knee swells. Regular price, \$125; our price, \$45. \$7 cash and \$4 a month.

(3) Karn organ, high back, 12 stops, 5 ootaves, 5 sets reeds, treble and base couplers, grand organ and knee swells. Regular price, \$150; our price, \$59. \$6 cash and \$4 a month.

(4) Dominion organ, high back, 8 stops, 4 sets reeds, octave couplers, 5 o.taves, grand organ and knee swells. Regular price, \$95; our price, \$39. \$5 cash and \$3 a month.

(5) Goderich organ, piano case, 6 octaves 11 stops, 4 sets reeds, treble and base coup 1ers, grand organ and knee swells. Not used 6 months. Regular price, \$135; our price, \$79. \$10 cash and \$5 a month.

We pay freight on these instruments to any point in Ontario, and make special rates when distance is greater. Handsome stool and scarf free with every piano.



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standing on good short legs; presents a splendid appearance and is stylish and very characteristic.

NOTICE.

FARM BUILDINGS when well painted give a thrifty and prosperous appearance to the entire premises. The Zanzibar Paint Co., Toronto, have been placing on the market goods which should command the appreciation of intelligent farmers. The Black Beauty leather dressing, for which they are sole Canadian agents, is invaluable as a preservative for harness or other leather subjected to severe climatic conditions.

FOR SALE.

Fifteen Clydesdale stallions, 9 of them imported, 4 of them are by the renowned sire, Baron's Pride. I also have a number of mares and fillies for sale. . 0

O. SORBY. GUELPH. ONTARIO.

GOSSIP.

GUSSIF. David Milne & Son, Ethel, Ont., write re-garding their Shorthorn herd: "We have lately added to our already large herd of Scotch Short-horns four head of Lady Fannys, daughters and granddaughters of Lady Fanny, imp.; also have had a fine heifer calf dropped lately from the Marr Beauty cow, Bonnie Bird, the dam of the young cow, Bonnie Briar, sold at the Flatt sale, at Hamilton, for \$410. A few heifer calves from good Scotch-bred cows and heifers, and got by Imp. Red Duke, have also increased the numbers of the herd. Stock doing well.

used to equal advantage on stone, brick, wood and plaster, and over oil paint or any good firm surface.

Full particulars and prices, with 80-page catalogue and treatise on the diseases af-fecting fruit trees and their remedies, will be mailed free to all who mention this paper.

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"Bug Death."

BUG DEATH" AS A DESTROYER OF POTATO, SQUASH AND CUCUMBER BUGS, AND ALL BUGS THAT EAT OR DESTROY THE IMATES OF PLANTS - "BUG DEATH" AS A MEANS OF INCREASING AND IMPROVING THE CROP.

are considered. Anyone interested can get full information, testimonials, and tests of actual results, by applying to the Bng Death Chemical Co., St. Stephen, N. B.—Advt.

EXPLOSIVES when carefully handled can be made to do valuable service in clearing land of stumps or other obstruc-tions. Farmers often forget that such a cheap medium is at their disposal. The Hamilton Powder Company, Montreal, whose advertisement appears in this issue, should interest all who are con-cerned in preparing land for the intro-duction of modern machinery.



The Largest and Best Equipped College for Women in Canada. Palatial buildings, beautiful grounds, magnificent site overlooking Lake Ontario, steam heating, electric lighting, modern sanitation, large pipe organ, concert grand pianos—in short, a pleas-ant, heakhtul home of Christian culture, as well as a live, progressive institution offering highest facilities for the study of Literature, Musi', Art, Oratory, Commercial and Domestic Science. Proximity to Toronto enables students to hear the best talent that visits that city. Several special trains from the city during the year. Write for Calendar or further information to REV. J. J. HARE, Ph. D., Principal.

REV. J. J. HARE, Ph. D., Principal.

PARK STOCK Fresh Importations of High-class ABERDEEN-ANGUS CATTLE AN D SUFFOLK SHEEP Both imported and home-bred Angus for sale. The Suffolks are from the best flock in England. Shear-ling rame, ram lambs and ewes of all ages for sale. JAS. BOWMAN,

GUELPH. - - - ONTARIO.

GOSSIP.

CHANGE IN ROYAL SHOW WEEK. The rule of the Royal Show of England has for many years been to commence judging all classes of stock at nine o'clock on Monday morning. Now that the show is to be permanently located in London, the council of the located in London, the council of the Society fixed the days for holding the show from 'Tuesday' to Saturday, in-clusive. By this regulation no one who is not employed in the showyard will need to start for the show before the Monday, or to stay longer than the fol-lowing Saturday at the outside. It was impossible to accede to the request of some exhibitors to close the show on the Friday evening, because Saturday, with its half-holiday, will be the great day for the multitude of London visit day for the multitude of London visitors.



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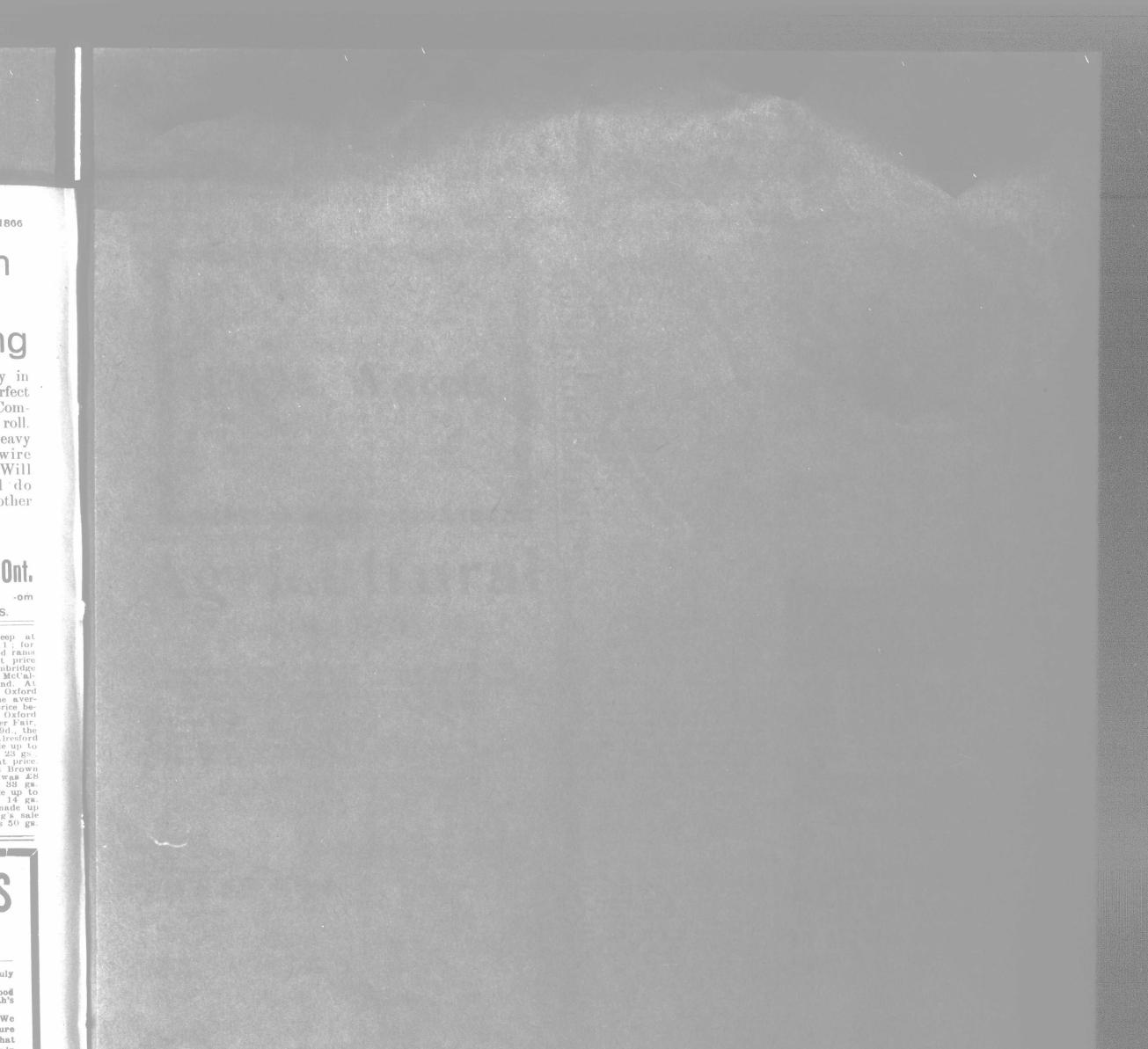
cGregor, Banwell & Co'y, Windsor,

Coiled Spring and Other Fence Wires, Fence Supplies. SEE OUR EXHIBIT AT TORONTO AND OTHER FAIRS

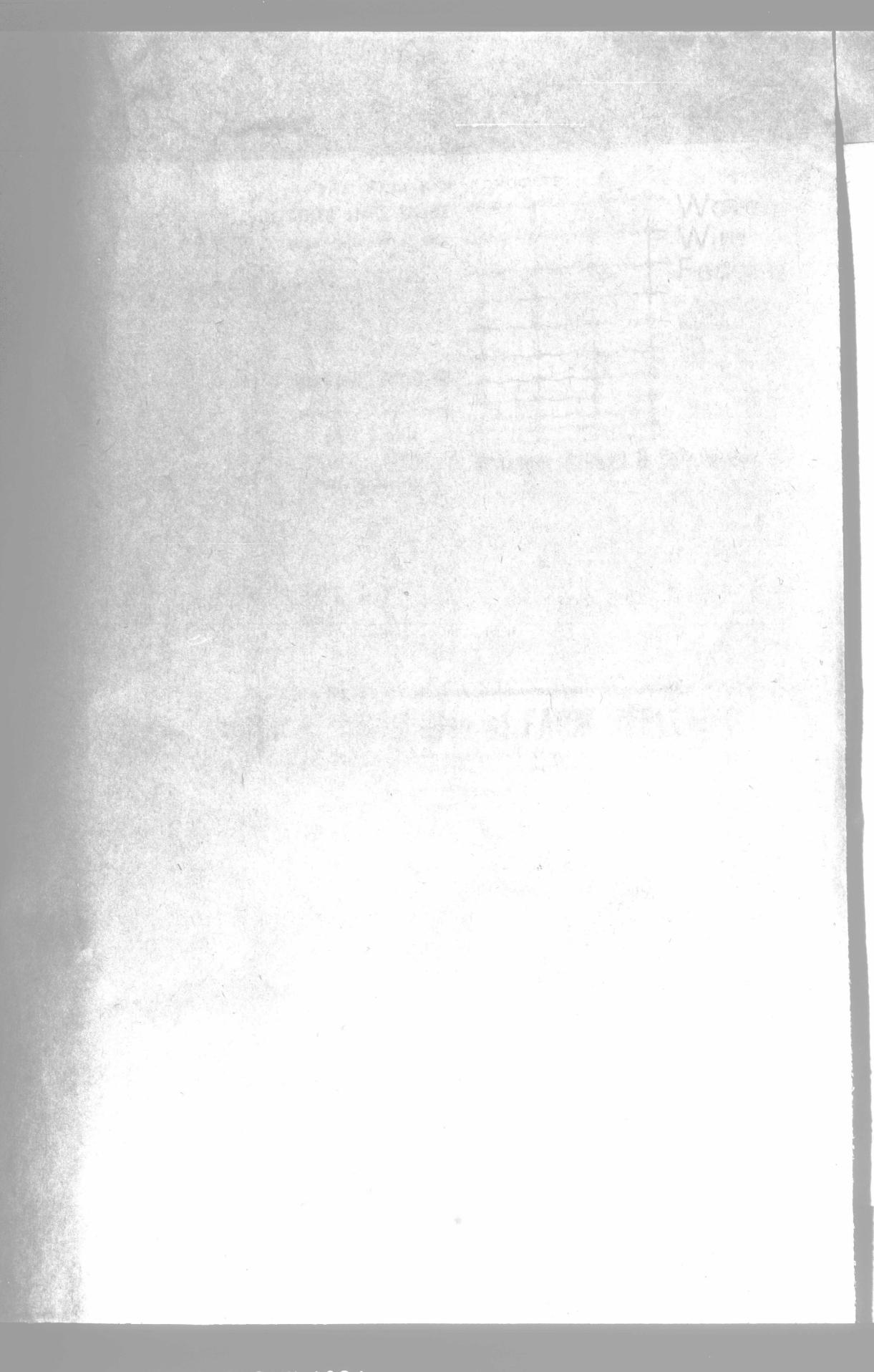
Messrs. A. J. C. Shaw & Sons, Than.esville, Cnt., report sales of Short-horns of all classes and Berkshires suc-cessful during the past year. Yorkshires have recently been added to the stock. At present they have for sale Shorthorn bulls, cows and heifers; twenty Berk-height of Yorkshires, and a carload of two-year-old stock steers.
Mr. Fred C. Smith, New Hamburg, Ont., proprietor of the Spruce Grove Herd of Yorkshires, writes: I have now for sale seven choice young sows in pig to imported boar; also boars and sows from eight weeks to four months old, bred from Summer Hill Member.
SALES OF SHIEEP IN ENGLAND. At the Shrewsbury sale of Shropshires contucted by Messrs. Alired Mansel & Co., Mr. R. P. Cooper's shearling ram, Coronation Champ'en, was sold at 150 gs. to go to New Zealand. The Earl of



Gentlemen, - Hava field of green rye ing purchased one of the No. 3 OPEN-REAR your new No. 8 Mow-BINDER bought from ers, and having cut your agents, Thayer about ten acres of & Vanslyke, of Aylthe worst kind of mer. To our surprise lodged clover, I must it never missed a say that it does its sheaf from start to work to my entire finish. It has no neck satisfaction. weight, and we are I would recommend entirely pleased with any person needing the machine. a new mower to pur-Intending purchase one of your chasers will make New No. 8's. no mistake in buying Yours truly, and the stand of the stand your No. 3 Open-rear (Signed) Binder. (Signed) PETER MCINTOSH. CHAS. SEERS. WM. SEERS. W. NEW NO. 3 OPEN - REAR BINDER. F. & Aylmer, July 16, 1902. TO WHOM IT MAY CONCERN : This Binder was worked in my field, and I confirm the above statement. It not only did clean work, but made a very neat, square-WM. HUGHES. butted sheaf. LOCAL AGENTS THROUGHOUT THE BRANCH OFFICES AND WAREHOUSES: THE Frost & Sood Company DOMINION. Montreal, Que. Toronto, Ont. London, Ont. Quebec, Que. HEAD OFFICE AND WORKS: St. John, N. B. Winnipeg, Man. FALLS, ONT. Truro, N.S. H'S



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7-17-1-2/22

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 (4) Three Weeks' Creamery Course—Dec. 2, 1902.
 (5) Twelve Weeks' Dairy Course—Jan. 3, 1903.
 (6) Two Weeks' Course in Stock and Grain Judging—Jan. 8, 1903. (7) Four Weeks' Course in Poultry Raising-Jan. 9, 1903.

LADIES ADMITTED TO DAIRY AND POULTRY COURSES.

SEND FOR CIRCULARS. James Mills, M. A., President. GUELPH, August, 1902. MANUFACTURED IN CANADA The best selling because the most satisfactory. "American" Field Fences ANDIA For horses, cattle, sheep, and hogs. All styles and heights-20 inches to 58 inches high, with stays 12 inches or 6 inches apart. "AMERICAN" FENCE 'Ellwood '' Field, Farm and Lawn Fences. Six styles. Heights, 18 inches to 58 inches. If you can't get the celebrated AMERICAN and ELLWOOD fences from your dealer write to us and we will help you. -om

GOSSIP.

River Stock Farm is the property of Mr. H. Parker, and lies in the County of Grey, Ontario, in the outskirts of the town of Durham, and is the home of a well-selected herd of Shorthorn cattle, numbering 35 head of Clarets, Lustres, Isabellas, and Butterflys, headed by the richly-bred bull, Verschoyle 160513; sired by Sturdy Prince (imp. in dam), by Prince of Archers; dam Velvet Beauty (imp.), by Velvet Jacket. He is a rich roan, possessed of perfect form and abundance of quality. His predecessor was Lord Lavender 26855, by Imp. Sittyton Stamp; dam Lavinia (imp.), by First Choice. The young animals in the herd are all sired by him, and in make-up are all that could be desired. There are half a dozen young bulls from eight to sixteen months old, low-down, beefy youngsters, that cannot fail to develop into rare good sires. These bulls are for sale They are bred right, they are the right type, and are offered well worth the money

Mr. J. K. Hux, whose farm lies in the County of Elgin, three miles south of Rodney station on the M. C. and L. E. & D. R. Railroads, is somewhat extensively engaged in the breeding of Shorthorn cattle and Lincoln sheep. His herd of Shorthorns number 25 head of choice Scotch cattle of Sadies (which family were founded on imp. Adeliza), Floras, Fashions, Myrtles (this family was founded on imp. Victoria 535), and Duchess of Boston, on which have been used such noted bulls as Cleopatra's King 29454 and Abbotsford 19446. In the bord are several choice heifers, sired by Abbotsford, any of which are for sale. In bulls there are several from 6 to 15 months old, sired by Abbotslord and Royal Prince, out of which lot can be picked some extra good up-to-date animals. These are also for sale. The Lincolns are an ideal lot, bred from imported stock, perfect fleeced. A few of this season's lambs will be for sale. Mr. Hux is one of the hustling young men of which Canada is proud, and believing that what is worth doing is worth doing well, he applies this rule to the caring and feeding of his stock, for they are in the pink of condition. Write Mr. Hux, to Rodney P. O., Ont.

Incy are in the pink of condition. Write Mr. Hux, to Hodney P. O., Unt. Beaver Valley Stock Farms are situ-ated in the County of Grey, about four miles south-west of 'Inornbury, Unt., on the Measord branch of the G. T. R. 'Inese spitendidly-arranged farms are the property of Messrs. C. & E. Park-inson, breeders of Shorthorn cattle. Their herd numbers 43 head, and con-tains some very choice young animals, among which are several heilers that have won the red ticket wherever shown, and from the herd can be picked out a few fit to enter any show-ring. They are all of the Wild Dame and Fashion families. The foundation cow of the Wild Dame family was Floss of 'Ihorn-bury 27382, by Erin Chief 9511, dam Melinda 14371, by Collingwood Chief 4665. This cow proved a regular bo-nanza to Parkinson Bros., and as a breeder of choice up-to-date animals has iew equals and fewer superiors. One of the older representatives of the Fashion family is Dora E, vol. 17, by Valkyrie 21806; dam Dora E (18311, by Rob Hoy 5865. Another of the Fashion family is Dora E, vol. 17, by Valkyrie 21806; dam Dora E (18311, by Rob Hoy 5865. Another of the Fashion family is a dark red, and won inst tas fall at the local shows. Another is the younger females is the two-year-old heifer, Frincess Maudé 5th 41202, by Favorite 24690; dam Floss of Thorn-bury. She is a dark red, and won inst inst fall at the local shows. Another is the fall-siter, Blanche 2nd, who also won inst and sweepstakes hast fall. Then there is the half-siter, Blanche 2nd, one year old, a winner. Another one-year-old is Princess Maud 6th. Both are good ones. In buils there are three fir for service: Diamond Fashion 39811, by imp. Dia-mond Jubilee, dam Dora E 41198, by Yalkyrie, is 18 months old, a low-down, bocky animal. Diamond Jubile, favorite, dam Louisa of Thornbury 27888, by Golden Endynion 14994, is 16 months old, showing aice, even, blocky form. All told, there are about twenthy heifers, from six months ta three years old, the bulk of them sired by the Nub-erls, Richmo



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British Columbia Farms. Mild climate, the best dairying country in Narth America. No biumards, No cyclones. No droughts, No hot winds. No sum-mer frosts. No cloudbursts. The beaviest crops per acre in Canada. We make this statement with-out fear of contradiction. Cool nights and good water. The best price for all kinds of farm produces. THE CALIFORNIA OF CANADA, with land at one tent the price.

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