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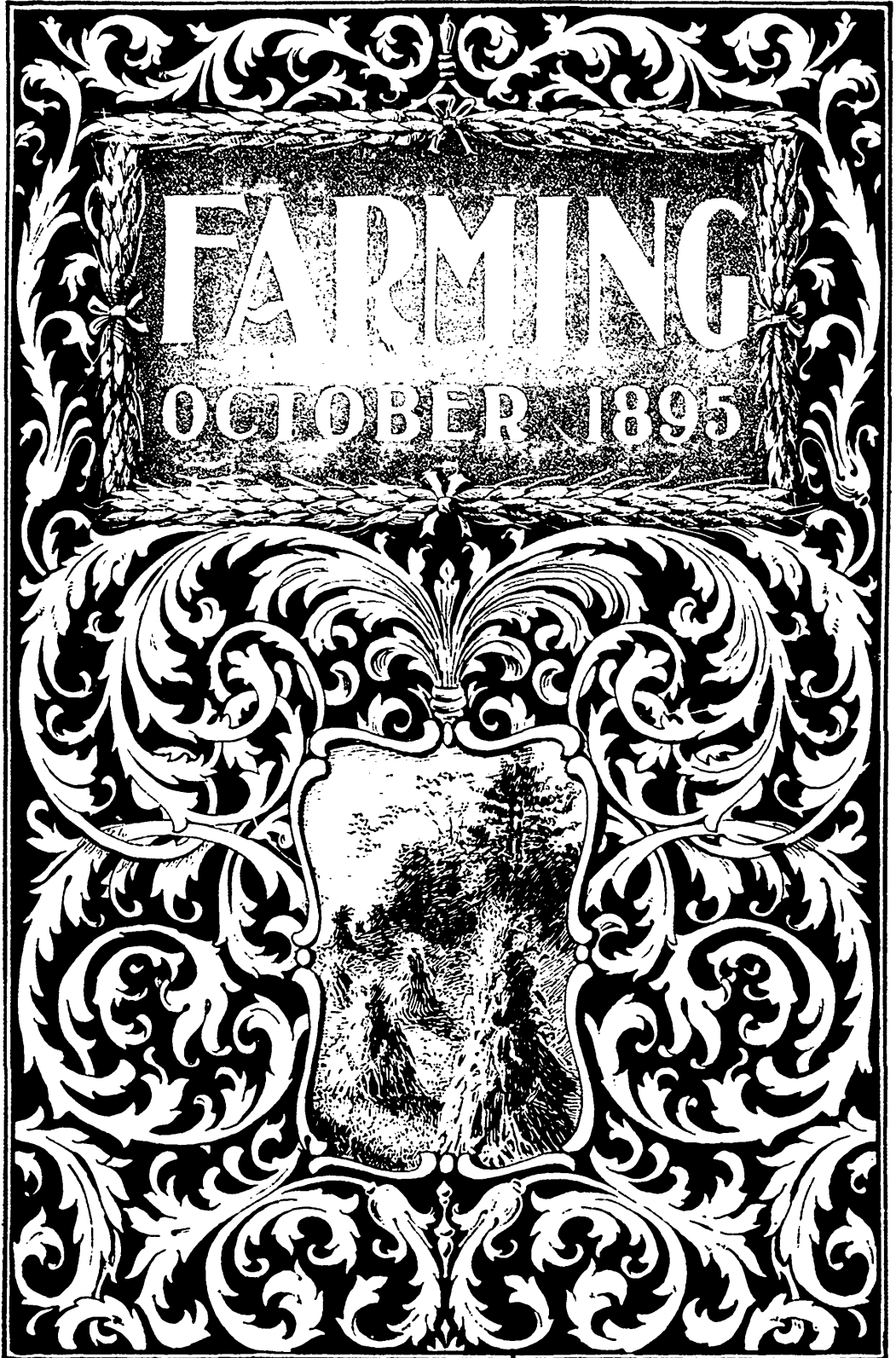
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Does not dissolve it away when out in pasture. Cattle get all the salt they want, whenever they want it.

## Rock Salt

Is all this, and cheaper to use than loose salt. We had an exhibit at Toronto Fair, and want you to leave us an order. 400 lbs., or over, at 50 cents per 100 lbs.

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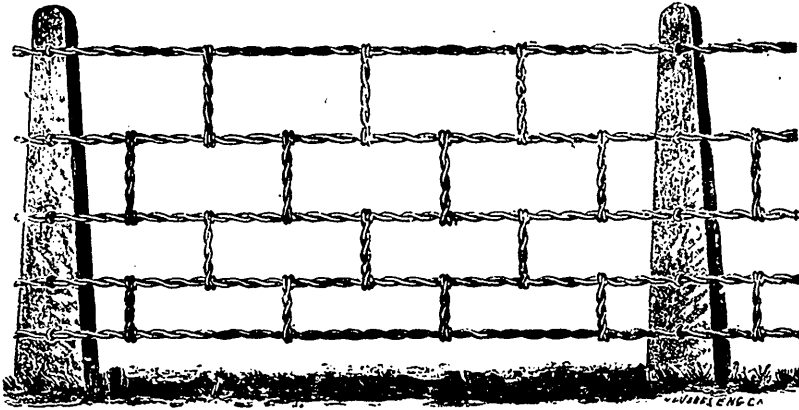
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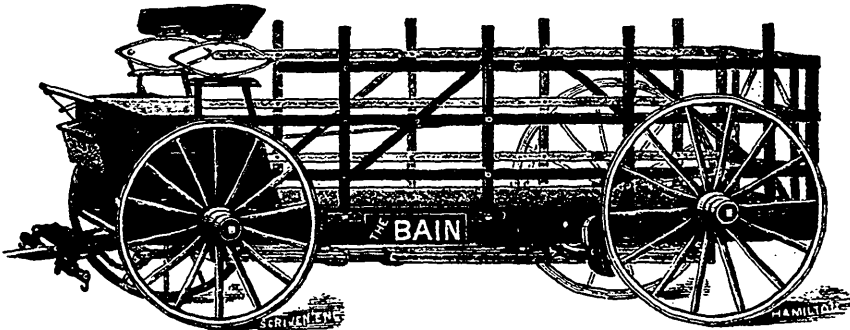
Latest, best, and cheapest wire fence in the market. On account of cross-sections, or connecting wires, any strain put upon one wire is at once equally distributed over the whole fence. Sold by the rod. AGENTS WANTED. Send for prices.

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## The Bain Holley Patent Low-Down Wagon

The Latest Invention and Greatest Success in Wagon Building



Especially suitable for handling LIVE STOCK, FRUIT, DAIRY PRODUCTS, HEAVY MATERIAL. No slatting of pole—BODY HANGS LOW—therefore no high lifting in loading. Will be on exhibition at principal fairs. Call and see it. Further particulars at d prices cheerfully furnished on application.

276

BAIN BROS. MFG. CO. (LTD.) - - BRANTFORD ONT.

HORSES.

# THORNCLIFFE STOCK FARM.

I have on hand the best young **Clydesdale Horses and Mares** on this continent. Bred from the well-known sires, Prince of Wales, Darnley, Macgregor, Energy, Lord Montrose, The Ruler, Carruchan Stamp, Knight Errant, and other celebrities.



237

**SHROPSHIREs.**  
Orders can now be booked for Shearling Rams, Ram Lambs and Ewes, sired by the celebrated prize-winning English ram, Bar None. Also rams and ewes of this year's importation.

**SHORTHORNS.**  
Choice young Heifers and Bulls by the celebrated Cruickshank bulls, Northern Light and Vice-Consul.

My stock in the above lines were very successful at all the large shows last year. Call and examine stock before purchasing elsewhere. Terms reasonable.



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## ROBERT NESS

IMPORTER AND BREEDER OF

### CLYDESDALES

From the best studs in Scotland. English and French Carriage Horses, Shetland Ponies, and Ayrshire Cattle.

### WOODSIDE FARM,

HOWICK, Que.

484



### IMPORTED CLYDESDALE STALLIONS.

I have three imported Clydesdale stallions bred from the most popular lines, guaranteed to be sound, sure, and excellent getters, that I wish to sell at reasonable prices. Drop a card for particulars.

G. S. Stewart, Howick, Que.

## Two Fillies

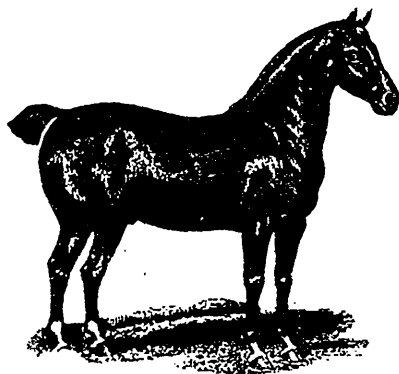
2 and 3 years old, for sale, registered in American Clydesdale Stud Book, fine colors and good animals in every way. The 3-year-old is bred. Let me hear from you early, if you want a bargain.

**JOHN DAVIDSON,**

ASHBURN, ONT.

332

## SANDY - BAY - STOCK - FARM



The above stud, though only commenced in '89, has achieved greater success than any of the same age and kind in Canada. During the five years of its existence it has taken over seventy prizes at first-class shows, including Halifax, London, and Doncaster in England; Chicago World's Fair and Philadelphia in the States; Canadian Horse Show, Montreal Exhibition, and Western Fair, London, in Canada. Shires and Hackneys always on hand for sale.

523

**HORACE N. CROSSLEY,**

Sandy Bay Stock Farm

Rosseau, Muskoka.

## Clydesdales For Sale

A grand pair of mares by Lord Rollo (imp.), dam Nellie (imp.), by the Monarch of the Glen. One a sweepstake mare at Montreal in 1893, and has a fine yearling filly. Also choice Ayrshires of all ages.

480

**THOMAS CAIRN,**

Arthurs, Que.

### SHORTHORNS.

## SCOTCH SHORTHORNS FOR SALE.

Choice young bulls and heifers by Abbotsford 19446, sweepstakes winners at Western Fair. Drop a card for full particulars.

256

**H. & W. D. SMITH,**

Half mile from Exeter Station.

Hay, Ont.



249

## "THE BRIARS"

**SUTTON WEST, ONT.**

84 Head of Registered Shorthorns.

Including bulls of various ages, incorporating the best blood of the Scotch and English Herds. Also HORSES AND PIGS. Inspection invited.

**F. C. SIBBALD.**

J. CARSON, Agent, Yorkton, Assn.

## H. I. ELLIOTT

Breeder of Scotch Shorthorns and Southdown Sheep

Imported King James at the head of herd.

335

Riverview Farm, Danville, Que.



246

## SCOTCH SHORTHORNS AND BERKSHIRE PIGS

For Sale—Choice young cattle of both sexes of the most select breeding. Also young Berkshire pigs from sows selected from the herd of J. C. Snell, Edmonton, Ont. Write for prices. **W. WARD,** Birchtown, Que. bec. Farm one-half mile from station, C.P.R.

## SHORTHORNS, SOUTHDOWNS, LEICESTERS, BERKSHIRES

All stock is first-class, and registered. You will find our prices right, and all stock as represented. Always pleased to show stock, or to answer correspondence.

**E. JEFFS & SONS,**

Bond Head, Ont.

300

# W. C. EDWARDS & CO., Breeders and Importers.

## ELMHURST STOCK AND DAIRY FARM

Clarence, Ont.

Shorthorns of milking families with imported Grandeur at the head of our herd. Our Shropshires are all imported from the best flocks in England. Berkshire Pigs. Young stock for sale. Post office and telegraph office, Clarence, Ont. Railway station and steamboat landing Thurso, P.Q., on the C.P.R.

4 HENRY SMITH, Manager.

## PINE GROVE STOCK FARM

Rockland, Ont.



Special bargains on young bulls of superior merit and select Scotch breeding. Also thick young heifers at the right prices.

Post Office, Telegraph Office, and Steamboat Landing, Rock-

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JOS. W. BARNETT, Manager.

## LAURENTIAN STOCK AND DAIRY FARM

North Nation Mills, P.Q.

Ayrshires, imported and homebred; herd headed by imported Emperor of Dromore 5434 C.A.H.R. and 1868 S.A.H.B. Jerseys, all of the celebrated St. Lambert family; herd headed by Lisgar Zogis of St. Anne's 25274, A.J.C.C. Berkshire Pigs. Young stock of all the above breeds for sale.

Post Office, Telegraph Office, and Railway Station, North Nation Mills, P.Q., on the C.P.R.

GEORGE CARSON, Manager.

# - CARGILL HERD of SHORTHORNS -



This herd has now at its head the imported Nonpareil bull, Royal Member, and the Lancaster bull, Rantin' Robin, by Roan Robin. The cows consist of importations from the herds of Duthie, Marr, Crombie, Campbell, Main, and others, numbering eighteen. All are of choicest Scotch breeding, and good individuals. We also have a number of good Canadian-bred cows, Strathallans, Isabellas, and others. We have a number of good young heifers for sale at reasonable prices, together with a few young bulls.

For particulars, address

444

## H. CARGILL & SON, Cargill, Ont.



UNMATCHED OF ELMHURST GLE=7134=

## Would you like to have the best SHORTHORNS

in the country?

If so, let me have your name. A fine lot now for sale, including two young cows with bull calves at foot, and an excellent lot of heifers.

489

W. J. RIGGENS, Clinton, Ont.

## GLENBURN STOCK FARM.



### SHORTHORNS AND BERKSHIRES

A few choice bull calves for sale; also a splendid lot of young pigs by (imp.) Randolph, and out of choice, well-bred sows. Prices reasonable.

JOHN RACEY, Jr.  
Lannoxville, Que.

248

## SHORTHORNS



LINTON LUCYRE=18425=

I have for sale two nice yearling heifers, red, and red and little white, good ones. Also two bull calves, well bred, and well grown. All are from first-class stock, and at reasonable prices.

D. ALEXANDER,  
Brigden,  
446 Lambton County, Ont.

## SIMMONS & QUIRIE

### Shorthorns and Berkshires.

The herd is headed by the Matchless bull, Royal Saxon =10537=, by Excelsior (imp.) =2693=(5123), with Barmpton M. =18240=, sired by Barmpton Hero =224=, as reserve. Among the females are representatives of the Strathallans, Minas, Golden Drops, Mysies, Elviras—all pure Scotch breeding, except the Elviras, which are Scotch crosses. The herd of Berkshires includes many prize-winners, and are an exceedingly choice lot. Farm 7 miles from Ilderton Station, G.T.R. Stock of all kinds for sale. Apply to

449

C. M. SIMMONS, Ivan, Ont., or

JAMES QUIRIE, Delaware, Ont.

## ARTHUR JOHNSTON, Greenwood, Ont.



Offers at moderate prices a splendid lot of young Shorthorn bulls sired by Indian Chief, also a very superior lot of young cows and heifers. BERKSHIRES of both sexes now ready to ship. Orders by letter for either SHORTHORNS or BERKSHIRES filled with care. Send for 1895 catalogue. "No Business, No Harm," is our motto.

CLAREMONT STATION, C.P.R., or

PICKERING STATION, G.T.R.

Greenwood Telegraph and P.O.

486

**DAVID MILNE**  
**ETHEL, ONT.**  
**Breeder of Scotch Shorthorns**

Stock of either sex for sale. Also a number of Berkshire pigs of different ages, at lowest prices. 389

**Shorthorns For Sale**



Choice young bulls and heifers, including the first-prize herd of calves at the last Industrial. All sired by the grand imported show bull, Aberdeen = 18949=. Also a few registered Southdown rams. Write for prices, or come and see stock.

**JOHN MILLER,**

227 Markham, Ont.  
 Stations—Markham, G.T.R.; Locust Hill, C.P.R.

**HEREFORDS.**

**BEST ALWAYS CHEAPEST**

**INGLESIDE**  
**HEREFORDS**

**THE UP-TO-DATE**  
**HERD OF CANADA**

A few choice young bulls for sale. Satisfaction guaranteed.

**H. D. SMITH,**

Ingleside Farm, - COMPTON, QUE.  
 G.T.R. Station 2½ miles. 536

**JERSEYS.**

**A. J. G. G. JERSEYS**

**Stock of Any Age**  
**For Sale :::::**

For particulars and prices, write

223 **H FRALEIGH, St. Marys, Ont.**

**JERSEY COWS AND HEIFERS.**

The highest testing strains.  
 Rich breeding and good colors.  
**ALSO TAMWORTH PIGS.**

454 **JOHN PULFER,** - Brampton, Ont.

**JERSEY BULL FOR SALE.**

Calved July 26th, 1894, sired by Exciter 33620, dam Matrina of St. Lambert 87304, granddam Lisgara; average test, 5.19. Great grandam, Lisgar's Rose; average test, 4.7. This record is taken from Ontario Agricultural College Report for 1894, p. 157. Also some FINE REGISTERED BERKSHIRE PIGS  
 234 **WILLIAM CLARK, Meyersburg, Ont.**

**THE CANADIAN HOLYWELL HERD**  
**JERSEYS, YORKSHIRES, and BRONZE TURKEYS**

My Yorkshire herd was founded on stock purchased from Jos. Brethour and Ormsby & Chapman, and is rich in Spencer blood. I ship none but A1 stock. Also some grand young Gobblers and Hens. Prices right. Give me a trial

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**THE MANOR FIELD FARM**  
**OF JERSEYS**

Combines blue blood with vigorous constitutions, and undeniable dairy qualities. The St. Lambert bull, Kaiser Fritz 21173, bred by D. S. Dodge, Connecticut, U.S., heads the herd. Write for prices on young stock.

548 **WILLIAM BACON, Prop.,**  
**Orillia, Ont.**

**THE BRAMPTON HERD**

**OF JERSEYS** won the First Prize at Toronto Exhibition for the best four calves, against the crack herds of Canada. All four were sired by Sir Ollie. A few of his get for sale.

544 **B. H. BULL & SON, Props.,**  
**Brampton, Ont.**

**GUERNSEYS.**

**GUERNSEYS . . .**

A few choice yearling bulls of the richest breeding. All registered. Write for particulars and prices.

512 **E. R. BROW,**  
**Eastview Farm, Charlottetown, P.E.I.**

**GUERNSEYS**

THE GRANDEST OF ALL DAIRY BREEDS.  
**OR SALE—Two choice bull calves, also some grand**  
**IMPROVED YORKSHIRE**

boar pigs fit for service, showing stock pedigrees. Price right. Come and see, or write.

**W. H. & C.** ish,  
 Elm Grove Farm, 511 - **LYN, ONT.**

**AYRSHIRES.**

**Glengarry Stock Yards**

My **AYRSHIRE HERD** comprises the best business strains. Bull and heifer calves descended from the importations of the late Thomas Brown. One very fine bull calf by Saladin and Glenrose suit-478 able for fall exhibitions. Drop a card for particulars.  
**JOHN A. McDONALD, Jr. - Williamstown, Ont.**

**Menie Stock Yard**



Breeder of Ayrshire Cattle and Berkshire Pigs. First-class pedigreed stock always on hand and for sale. *First-class milking stock a speciality.*

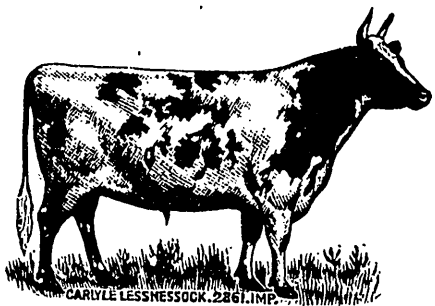
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**Menie, Ont.**  
 Hoard's Station,  
 G.T.R. 524

**MAPLE GROVE AYRSHIRE STOCK FARM**

R. G. STEACY - Importer and Breeder - LYN, ONT.

Largest importers in United States and Canada of the most noted Milk, Butter, and Prize Record Ayrshires procurable in Scotland. Head of herd is Carlyle Lessnessock, whose grand dam was never defeated in a milking contest in England and Scotland, competing against all other dairy herds for years in succession, and awarded more prizes in gold medals, cups, and money, than any Ayrshire ever exhibited with the imported females of noted individual records. I am in a position to offer none but performers at reasonable prices. Do not fail seeing my stock at all leading exhibitions this fall.

Registered rough-coated Scotch collies from imported stock.



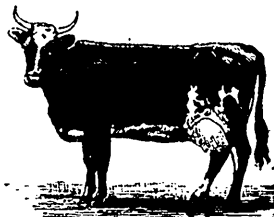
**JOHN NEWMAN & SONS**

LACHINE, QUE.

**Breeders of High-Class Ayrshires**

We have a number of choice imported prize-winning cows in the herd, together with the best milking strains obtainable. A number of choice young bulls by our prize-winning bull, Glencoe, which we will sell at reasonable prices. Call and see our extensive herd. Immense choice. First-class quality.

560



**ALEX. HUME & CO.**

Importers and Breeders of

**Ayrshire Cattle and Yorkshire Pigs**

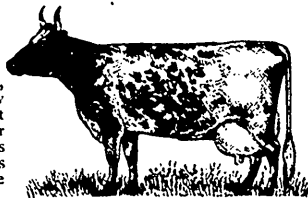


Have for sale a few large cows, yearling heifers (just served by imp. bull, Prince of Barcheskie, 1st prize yearling bull at Industrial, Toronto, a few prize-winning heifer calves, a beautiful prize bull calf, Dominion Lad, at Industrial, Toronto, that would mate with any above females; also other bull calves. As we intend to reduce our number of dairy cows of various crosses, we will sell any of different ages. A few prize-winning Yorkshires of all ages for sale. Now that the shows are over, we will sell any of the above lines of stock at reduced prices.

Telephone: Hoard's Station, G.T.R.

346

Burnbrae P.O., Ontario



**Ayrshire Cattle.**

DAVID BENNING, Glenhurst, Williamstown, Summerstown Station, G.T.R.,

BREEDER OF

Ayrshire Cattle, Leicester Sheep, and Berkshire Pigs. The bull, Tom Brown, and heifer, White Floss, winners of sweepstakes at World's Fair, were bred from this herd. Young stock always for sale.

340

**AYRSHIRES FOR SALE**

Four cows, grand milkers, and a heifer; all are in calf to Grand Duke, a son of last year's Toronto sweepstakes bull and cow, also two bull calves.

549

R. E. WHITE, Perth, Ont.

**AYRSHIRES**

None but the best kept. Some fine bulls, also calves of both sexes for sale. Send a card for full particulars.

F. W. TAVLOR, Wellman's Corner, 228 Ontario.



**AYRSHIRES**

Purebred, of different ages and both sex. No inferior animals. Write for particulars.

A. MCCALLUM & SON, Spruce Hill Dairy Farm. DANVILLE,

**NEIDPATH STOCK FARM**

THOS. BALLANTYNE, Stratford, Ont.

Breeders of **Purebred Ayrshire Cattle.** Herd consists of the imported bull, Beauty Style of Auchenbrain, and ten imported cows of the highest milking strains and their progeny, by imported bulls.

355

**GREENHOUSE STOCK FARM**

W. B. COCKBURN, Nassagaweya, Ontario  
Breeder of Ayrshire Cattle, Oxford Sheep and Berkshire Pigs.

I have several choice bull calves from imported cows for sale, at prices to suit the times; also a nice lot of shearing Oxford ewes, and some very promising Berkshire pigs. Write for prices and particulars.

527

**Choice Ayrshires.**

My stock bull is Imported **SILVER KING**; the dam of Silver King is Nelly Osborne (imported), who took 1st as milk cow and champion medal at World's Fair, and his sire is Traveller, the champion Ayrshire bull of Scotland. Young stock of both sexes for sale, sired by this famous young bull

Please address **D. McLACHLAN, Petite Oute, P.Q.**

535

**JAMES COTTINGHAM, Riverside Farm, Ormatown, Que. Breeder of AYRSHIRE CATTLE.**

My herd is headed by the prize-winning bull, Sir James (5057); sire, Rob Roy (3971). Stock of both sexes for sale at all times, including some choice young bulls and heifers.

337



# AYRSHIRES

A few fine young stock bulls for sale.  
One by the same dam as the Columbian winner (Tom Brown).

Also some good young females.  
Come and inspect our stock. Prices to suit the times.  
197 **ROBERTSON & NESS** - Howick, Que.

DOMINION PRIZE HERD

PUREBRED

## AYRSHIRE CATTLE

RECORD FOR 1893

**54 Prizes 54**

**37 FIRST II SECOND**

WITH

Gold, Silver and Bronze Medals

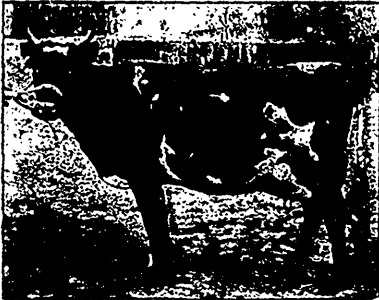
**MONTREAL, TORONTO, LONDON AND OTTAWA**

This herd has always taken the lead; they are of large size, and of good milking strains.

**JAMES DRUMMOND & SON,**  
Petite Cote, Que.

292

**Ayrshires and Shorthorns**



Of the finest breeding. A number of bull calves sired by Doranto: Chief; dams, Amy, Ella, etc. A beautiful light colored yearling bull from Amy, and several Shorthorn heifer calves sired by Gibson Duke. Send for all particulars and prices.

**JOHN H. DOUGLAS,**  
Breeder and Importer, 232 Warkworth, Ont.

**HOLSTEINS.**

**HOLSTEIN-FRIESIANS**

Richly bred Netherland, Peel, Johanna, and Moore strains  
Stock of all ages, male and female, for sale at lowest prices.

519 **JOHN MCGREGOR,** Constance, Ont.

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**RIDEAU STOCK FARM**

393 **BOX 577 KINGSTON, ONT.**

## THE GROVE HILL HERD OF HOLSTEINS

Headed by a son of the famous silver-medal bull, Netherland Statesman's Cornelius. Our motto: "The best are none too good."

**B. MALLORY, Prop.,**  
Frankford, Ont.

554

## SPRING BROOK STOCK FARM

Holstein-Friesian Cattle, Improved Yorkshire and Tamworth Swine. This herd is again to the front for prize-winners. Will give bargains in prize-winning stock (males and females) from now till December. Stock excellent quality and breeding. Write at once for bargains. Over 50 head of choice Tamworths on hand.

**A. C. HALLMAN,**  
Waterloo Co. 413 New Dundee, Ont.

## A RARE BARGAIN IN HOLSTEINS

On account of failing health, I feel compelled to reduce my choice herd to at least one-half before winter. They must go at a sacrifice. Write for prices, and I will astonish you. Some very choice young cows due to calf in December, yearlings in calf, and calves, of the greatest individual merit and breeding, second to none in this country. Address,

339 **H. BOLLERT,** Cassel, Ont.



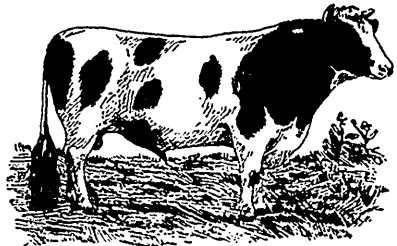
**CHOICE  
HOLSTEIN-  
FRIESIANS.**

Bulls, heifers, and cows all ages of the best milking strains, which I will sell at reasonable prices. Drop a card for particulars.

**S. K. BECK,**  
South Cayuga, Ont.

Meadow Brook Fruit and Stock Farm, St. David's,  
Niagara Township, Lincoln Co., Ont.

**CHOICE  
HOLSTEIN-FRIESIANS**



Count Mink Mercedes at the head of herd. He is choicely bred and a superb individual. The cows are from the highest producing families and directly descended stock imported from Holland. Choice young bulls from dams with large milk records now on hand.

236 **SAMUEL & W. H. COLLINSON,**  
236 Sherbourne Street, TORONTO.

## HELBON STOCK FARM

Holstein-Friesians of the highest producing strains, founded on the best imported families of NORTH HOLLAND.

A few choice females of different ages and a yearling bull on hand at reasonable prices and easy terms. Also Improved Large Yorkshires of Sanders Spencer and Walker-Jones' breeding. Also choice Oxford Down rams.



**J. W. LEE,** 430 Simcoe, Ont.



**REGISTERED HOLSTEINS**

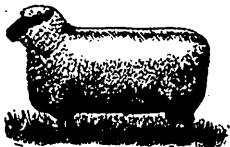
FOR SALE BY

**ELLIS BROTHERS,**  
BEDFORD PARK P.O., ONT.3 miles north of Toronto, on Yonge Street. Electric cars  
bring you to our gate.**Inspector. Invited and Correspondence solicited.**  
306**FAIRVIEW FARM****E. FANNABECKER**Breeder of Grand Milking  
Registered Holstein Cattle.  
A specialty in females of all  
ages at present.244 **HESPELER, ONT.****MEET US AT THE GREAT FAIRS**We will again exhibit at the large fairs a carload of  
**HOLSTEIN CATTLE**, and promise to show you  
something that will please any lover of good milkers. Parties  
desiring young stock from the great Holstein families will  
kindly write or ask for records, etc., which we shall be pleased  
to supply. We keep no culls.**A. & G. RICE,**Brookbank Stock Farm,  
Currie's Crossing, Ont.

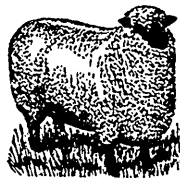
490

**MAPLE HILL****Holstein-Friesians**Am offering the finest lot of heifers to be found in Canada.  
At the recent Industrial my herd won first in every section for  
heifers, and sweepstakes for both male and female. These  
heifers will be bred to Sir Pietertje Josephine Mechthilde, the  
richest bred bull in Canada, and Netherland Consul, the silver  
medal bull of 1895. Write, or, better still, come and see them.550 **G. W. CLEMONS, St. George, Ont.****A CHOICE LOT TO  
PICK FROM.**Consisting of ram and ewe  
lambs, and ewes in lamb. The  
finest lot of Shropshire Lambs we  
ever bred, and you cannot object  
to the prices we ask. Let us  
hear from you.**ALLEN McPHERSON,**  
219 **Forest, Ont.****OXFORDS.**Fine rams, shearing and 2 shears,  
and ram lambs, Yorkshire sows due  
to farrow in a few weeks. Also Ply-  
mouth Rocks. We can suit you.  
Send card for particulars and prices.**COUSINS & SONS,**  
290 **Harriston, Ont.****OXFORDS :**FOR SALE: One 4-year-  
old imp. ram, first-prize ram  
when shearing at the Bath  
and West of England show.  
One two-year imp. ram. 15  
homebred shearing rams,  
ram lambs, also ewes of  
all ages, at prices to suit the  
times. Also first-class Bronze  
Turkeys.

462

**JAS. TOLTON, Walkerton, Ont.****SHROPSHIRE RAMS**

AND

**YOUNG SHORTHORN BULLS****FOR SALE.****ALSO A FEW FEMALES.**All of the finest breeding. Write for particulars and prices,  
or come and see our stock. Visitors always welcome.**C. B. IRVING,**  
424 **Newmarket, Ont.****Oxford Downs.**We can suit you.  
Drop us a card for  
prices and particu-  
lars.**Turner & Jull,**  
448 **Burford, Ont.****SHROPSHIRE**Our flock, the oldest Shropshire  
flock in Canada, was founded in  
1881. Importations made from  
time to time, selected in person  
from best English flocks. This  
season's lambs are a strong lot,  
dropped in January and February  
Orders can now be taken for pick.**J. COOPER & SON,**  
492 **Kippelon, Ont.****WHITESIDE BROS.****The Glen, Innerkip,  
Oxford Co., Ont.****Shropshires**—Yearlings and  
lambs. **Berkshires**—Breeding  
stock, both sexes. Also **Ayr-  
shires**In writing mention this journal.  
531**MONTROSE STOCK FARM**Breeder of Shorthorns (Waterloo  
Booth strains), Shropshires, Berk-  
shires, Bronze Turkeys, and Fancy  
Plymouth Rocks. I make a specialty  
of raising Swede Turnip Seed, war-  
ranted fresh and 1/2 lb. sufficient per  
acre. The best quality of turnips  
grown. Write for prices.**HORACE CHISHOLM,**  
218 **Paris, Ont.****Minnie Miles.**  
Twice Winner Over all Breeds.**200 OXFORD DOWN SHEEP**for sale, all ages and both sexes. Won many prize at World's  
Fair. Prices reasonable.**HENRY ARKELL,** Arkell Ont.

Guelph—G.T.R.

Telegraph—Guelph.

Arkell—C.P.R.

Telephone—Arkell.

403

## SHROPSHIRE RAMS

To show, and head the best flocks. Ewes of equal quality, and good show lambs of both sexes will be sold at lowest prices for the next sixty days. Will show at Toronto, Montreal, and Ottawa.

**JOHN MILLER & SONS,**  
497 BROUGHAM, Ont.

## T. W. HECTOR

The Cottage,  
Springfield-on-the-Credit, Ont.

Breeder and Importer of

## DORSET HORN SHEEP

And dealer in

Saddle and Carriage HORSES.

533 Stations: Springfield, C.P.R., and Port Credit, G.T.R.

## LINCOLNS.

The Largest Flock in Canada!

Our breeding ewes, 150 in all, are from the best English flocks. Our last importation was made from the flock of Mr Henry Dudding, and were all personally selected. If you want a ram or a few ewes, send along your order. If you want shearlings or lambs of either sex, we can supply you with the very best.

J. F. GIBSON, Denfield, Ont.  
W. WALKER, Ilderton, Ont.

520

## THEY ARE FINE!

### Fairview's Shropshires

Were never in better shape to supply fine animals. Best breeding, all ages, both sexes. Come or write, to secure the pick.

**JOHN CAMPBELL,**  
238 Woodville, Ont.

## Hillhurst Farm

Oldest Stud of Hackneys in America.



1864.

1895.

Shorthorn and Aberdeen-Angus Cattle.  
Dorset Horn and Shropshire Sheep.  
Shearling Rams and Ewes.  
Ram and ewe lambs of the best blood and quality.

**M. H. COCHRANE,**  
485 Hillhurst Station, P.Q.

## BELVOIR STOCK FARM

**FOR SALE:** Shropshire Sheep  
—AND—  
Yorkshire Swine

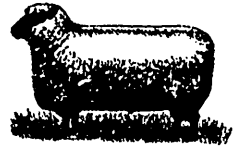
Of winning strains, and bred to the highest type. Prices as low as such breeding and quality will permit.

**RICHARD GIBSON,**  
557 DELAWARE, ONT.

## OXFORD DOWNS

FOR SALE.—Six shearing ewes and a few imported ewes, 3 and 4 years old, also 25 ram and ewe lambs. Prices reasonable.

**SMITH EVANS,**  
491 GOUROCK, ONT  
BREEDER and IMPORTER



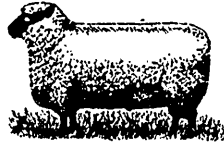
## GOOD LEICESTERS

We have some of the best Leicesters to be found in the country, and if we cannot please you your case is hopeless. We have shearing ewes; ewe and ram lambs; shearing, two-year-old, and aged rams. Let us furnish you with all particulars.

212

E. Archer & Sons, Warwick, Ont.

## LINDEN OXFORDS.



Do you want a ram lamb sired by the Royal winning rams Royal Warwick 3rd, or Bath and West? If so, write, or come and see us. Also some fine young Yorkshires.

R. J. HINE, Dutton P.O.  
K. FINLAYSON,  
Campbellton, P.O.  
Stations—Dutton, M.C.R.  
414 Glencoe, G.T.R.

## SWINE.

## LARGE ENGLISH BERKSHIRES



My breeding stock has been selected from the best English herds. Two imported boars, and eight imported sows all breeding. Pigs of all ages to select from.

230

ISRAEL CRESSMAN, New Dundee, Ont.

## 63 CHESTER WHITE SWINE

REGISTERED STOCK

Toulouse Geese, Pekin Ducks, Bronze Turkeys, eggs \$1 50 per 11. Partridge and Buff Cochins, Plymouth Rocks, Silver Gray Dorkings, Golden, Silver, and White Wyandottes, Brown and White Leghorns, Black Hamburgs, American Dominiques, Black-Red and Black Sumatras, and Indian and Pit Games; eggs, \$1 per 13. Will mix sittings if desired; also a few pairs of Wild Turkeys for sale. G. BENNETT & FARDO,  
407 Charing Cross, Ont.



## Some of the Best

Yorkshires in the country are to be found at the Woodroffe Stock Farm.

I have them for sale, cheap, from three months to two years of age. Both sexes. Young sows to farrow in October.

**J. G. CLARK,**

289

OTTAWA, ONT.

## H. J. DAVIS,

WOODSTOCK, ONT.



Improved Large Yorkshire Boars, very fine, fit for service. Also young pigs supplied not akin. Berkshire Boars of good breeding, fit for service, and young pigs ready to ship; also Shorthorn Bulls and Shropshire Rams from imported stock for sale at moderate prices.

195

**IT PLEASURES US**

To have folks come to see our stock, or to write, about them. There is always pleasure and satisfaction in handling Poland Chinas and Chester Whites when they are really well bred. The prices, too, will surprise you.

**DANIEL DeCOURCEY,**  
Bornholm, Ont.

230

**TAMWORTHS**

Fifty young pigs of both sexes. Boars fit for service, and we ready for mating. Also few one-year-old sows. All stock guaranteed.  
Drop a card for all information.

470 **J. L. REVELL,** Putnam, Ont.

**BERKSHIRES FOR SALE**

My Berkshires secured a large number of the most important prizes at Toronto, Montreal, and London exhibitions; also several prizes at the Fat Stock Show in Guelph, including sweepstakes for best purebred sow of any age or breed.

A choice lot of all ages for sale.

Please mention FARMING.

**GEO. GREEN, Fairview, Ont.**  
Stratford Station and Telegraph Office. 263

**POLAND CHINAS**

My herd is composed of the most popular strains of prize-winning blood from imported stock. A choice lot of spring pigs from imp. Black Joe ready to ship. Also a twelve-months-old sow due to farrow in August (a show sow).

**OLIVER DRURY,**  
 Fargo, Ont.

345

**Tamworths, Polands, Chesters.**

Some choice Tamworth boars fit for service, and sows bred to farrow in September. Chesters from 10 to 14 weeks old. Polands 3 to 3½ mos. Tamworths 4 months. A post card will bring you all information.

**HERRON & DAFOE,**  
AVON, ONT.

231

For the Finest Strains

OF **LONG**

**ENGLISH  
BERKSHIRE  
PIGS**

**BOW PARK**

Apply

**Bow Park**

Co. (Ltd.)

**BRANTFORD Canada.**

**CANADA WILKES**

A first-class specimen of the most fashionable strain of Poland-Chinas in the world at head of herd.

Send for illustrated catalogue of

The Corwin herd, which now consists of over one hundred head of both sex, and all ages. Pairs and trios furnished not akin, as low as from any herd in Canada, quality considered.

Correspondence solicited, and personal inspection invited. Address,

**CAPT. A. W. YOUNG,**  
Tupperville, Ont.

399

**POLAND-CHINAS FOR SALE CHEAP**

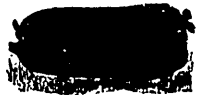
Choice pigs, farrowed April and June, bred from imported stock. Registered pedigrees furnished. Only first-class pigs shipped.



463  
**R. B. McMULLEN, Goldsmith, Ont.**

**BERKSHIRES FOR SALE.**

17 pigs, five weeks old, at farmers prices, or will exchange for Poland-China pigs or Oxford Down sheep. My pigs are from prize-winning stock. Write for prices.

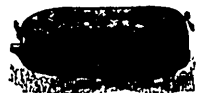


**C. J. WRIGHT,**  
DIXVILLE, P. Q.

385 P.O. Box 114

**GOLD MEDAL HERD OF BERKSHIRES**

Young boars and sows of spring litters, bred straight from imported stock. Sires weigh from 650 to 840 lbs. Size and quality combined. Orders booked for September and October pigs at eight weeks old, and for sows bred to imported boars.



426 **J. C. SNELL - Edmonton, Ont.**

**PUREBRED TAMWORTHS.**

A choice lot of spring pigs, farrowed last of February, now in grand shape to ship. Have also a limited number of young sows bred to farrow in July and August. I am making a specialty of this class of swine and I keep no other.



229

**LEVI MASTER, Hayville, Ont.**

**LARGE ENGLISH BERKSHIRES**

Bright Prince, a never-beaten winner, assisted by Banner Boy. Grand young boars and sows now for sale, also choice Shropshires.



453 **T. A. COX, Stock Farm, Brantford, Ont.**

**BERKSHIRES**

Our Berkshires made a clean sweep of all the first prizes at the late Toronto Industrial Exhibition, including first prize for boar and two sows; boar and four of his get; and sow and four of her produce. We have some fine young pigs for sale farrowed this fall; also boars and sows about five months old. Write for prices.



**J. G. SNELL & BRO., Edmonton, Ont.**  
Brampton and Snelgrove Stations. 455

**POLAND-CHINAS ARE THE RIGHT KIND.**

Brood sows for sale. Boars ready for service. Young sows ready to breed. Lots of pigs two to three months old; good long pigs with heavy bone. Prices right. Mention FARMING.



493

**R. WILIS, Jr., Guelph, Ont.**

**LARGE ENGLISH BERKSHIRES**

Of the best recently imported families from which I now have a choice selection of fall and spring pigs. Pairs furnished not akin.

Also a few superior Yorkshires of the best strains.  
**Dennis Hawkins, - Woodville, Ont.**

433

If you want Improved Chester White Swine or Dorset Horn Sheep of first-class quality at rock-bottom prices, write to  
**R. H. HARDING**, Breeder and Importer,  
 MAPLEVIEW FARM, Thorndale, Ont.  
 423



**BERKSHIRE**, Chester White, Jersey Red & Poland China Excs. Jersey, Guernsey & Holstein Cattle, Thoroughbred Sheep, Fancy Poultry, Hunting and House Dogs. Catalogue.  
**S. W. SMITH**, Cochranville, Chester Co., Pa.

## Chester Whites

To make room in winter quarters, I offer a fine lot of fall pigs at reduced prices. Also some fine spring pigs ready for breeding purposes.

**JOS. CAIRNS**,  
 Camlachie, Ont.

375

## TAMWORTHS



I have some extra fine boars and sows ready for mating. Also September, 1895, pigs. Will supply pairs not akin of the best quality at prices to suit the times. Satisfaction guaranteed.

**JOHN C. NICHOL** - - Hubrey, Ontario.

## YORKSHIRES

Six weeks old for \$8.00.  
 For full particulars write  
**F. RUSNELL**,  
 MOUNT FOREST, ONT.

201

## TAMWORTHS POLAND CHINAS



Some grand young pigs of each variety of the best prize-winning strains.

**WM. ROW**,  
 358 AVON, Ontario

## LARGE ENGLISH BERKSHIRES FOR SALE.

Three sows in pig, also young stock, both sexes.  
 Address

**R. J. DIXON**  
 Glendon, Ontario.

## PLEASANT VIEW HERD

of REGISTERED  
**TAMWORTHS**



For sale, a few yearling sows, young sows ready to be served, two young boars fit for service, and one imported boar, Birmingham Hero. Very low prices. Write for particulars.

412

**E. H. KOLB**, Berlin, Ont.

## NORTHSIDE FARM BERKSHIRES

Choice young boars and sows of all ages; also weanling pigs of extra quality. I have aimed to breed plenty of bone (extra length) and quality in my pigs. Satisfaction guaranteed.

**E. E. MARTIN**,  
 Canning P.O., - 464 Paris Station, Ont.

## THOMAS DOLLIN & SON, Chatham, Ont.

IMPORTERS and Breeders of Ohio Improved Chester White Swine. Young stock of above always for sale. Satisfaction guaranteed, and prices to suit the times. Pedigrees furnished with all sales, and nothing but first-class stock shipped. Four choice brood sows for sale, registered. Correspondence solicited.  
 205



## THE SWEEPSTAKES HERD OF

## TAMWORTHS

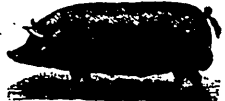


has won the highest honors for the last three years. Boars and sows of all ages by the Industrial and London first prize-winner, Glen Sandy.

**WALTER. T. ELLIOTT**, Hamilton

## It is No Trouble

To make money in breeding Tamworths if you can get the best blood to start with. Let me hear from you if you want something good. I have them at all ages, both sexes, and lowest prices. Also a few Yorkshires.



**J. F. Master**, New Dundee, Ont. 461

## OHIO IMPROVED CHESTER WHITES AND ENGLISH BERKSHIRES.

My stock of Ohio Improved Chester Whites are imported from the celebrated herd of L. B. Silver & Co., Cleveland, Ohio. I also have a choice stock of registered Berkshires.



504 **GIDEON SNYDER**, Jarvis, Ont.

## MAPLE LEAF STOCK FARM...

### Improved Yorkshire Pigs

of the best strains of breeding.

### Large English Berkshires

Large thrifty pigs are my type, that is the way I breed them. All ages now on hand.



503 **THOMAS WATSON**, Springvale, Ont.

## LARGE ENGLISH BERKSHIRES

Choice boars one year old, good for show. Some choice sows under one year, to farrow in Sept. and Oct. Boars and sows six weeks to five months old. Registered pedigrees. Satisfaction guaranteed. Come and see stock, or write for prices. 2 1/2 miles from Bright Station, G.T.R.



**C. R. DECKER**  
 Chesterfield, Ontario.  
 298 Please mention FARMING

## Yorkshires

For Sale. One of the best herds in the province.

Also

## GARRIAGE HORSES

from Standard-bred and Hackney stallions



**J. M. HURLEY & SON**, Belleville, Ont.  
 Box Kingston Road Stock Farm. 392



## E. D. GEORGE PUTNAM, ONT.

Importer and Breeder of  
 Ohio Improved Chester White Swine

The largest and oldest established registered herd in Canada. I make this breed a speciality and furnish a good pig at a fair price. Write for prices.  
 293

**YOU ARE INVITED . . .**

To come and see our stock or to write to us for prices and particulars. We have for sale 85 head of Chester White and Tamworth pigs from six to ten weeks old, from imported and prize-winning stock. Best quality. Lowest prices.

**H. GEORGE & SONS,**  
Crampton,

395

## RED TAMWORTH AND DUROC-JERSEY PIGS

A grand lot ready to ship, and selling two for the price of one. Also some registered Ayrshires very low, as feed is scarce.

217 **CALDWELL BROS., Orchard, Ont.**

### HAVE YOU ANY FINE SHOW PIGS?

**POLAND-CHINAS**  
AT **REDUCED PRICES.**



1 boar 2 years old; boar 10 months old;  
1 sow 1 year old, with pig; 1 sow 10 months old.  
The above are all first-class, and registered.  
Write for particulars.

**WESLEY W. FISHER,**  
221 Benmiller, Ont.; Goderich Station.



## Ashton Grange Farm

**Improved Yorkshire and Berkshire Swine**

Young stock from prize-winner, at leading shows or pairs of either breed now ready for shipment.

**WM. TAIT,**

St. Laurent, Quebec.  
Near Montreal.

550

### KEEP YOUR EYE ON THIS SPACE



**CHOICE COTSWOLDS**—Our flock have won at the principal exhibitions, 2 dipl. mas, 17 first and 8 second prizes. Our rams, two shears won first and second at Toronto. Shearing ewes third, and ewe lambs third. We have some fine ram and ewe lambs fit for any flock, and stock rams and show ewes at very low prices. Also some fine young Berkshire boars. All stock guaranteed as described. Visitors welcome.

247

**C. T. GARBUIT, Claremont, Ont.**

## Oak Lodge Herd

—OF—

# Yorkshire Swine

Having again secured the first prize for the best herd at the Toronto Industrial Exhibition of 1895, for the fifth time, I am prepared to supply the very choicest stock at moderate prices. A number of choice-bred young boars on hand fit for immediate use. All stock guaranteed. Write for prices.

**J. E. BRETHOUR,**

Burford, Ont.

214

**BERKSHIRES.**

A CHOICE lot of sows for sale, bred to farrow in February and March, and some to breed yet. A few boars fit for service. Young pigs of various ages. Call and see stock, or write for prices and description.

**J. H. SIEFFERT,**

NORTH BRUCE, ONT.

362

### MAPLE LEAF FARM.

#### IMPROVED LARGE YORKSHIRES

Markham Baron, the sweep-stakes barrow over all breeds at Fat Stock Show at Guelph in 1892, was bred by us. A choice lot of young sows old enough for mating. Also young boars. Pairs furnished not akin. Only first-class stock shipped.



**JOHN PIKE & SON,**

202 Locust Hill P.O., C.P.R. Markham G.T.F.

### MODEL BERKSHIRE HERD

**D. A. GRAHAM**

IMPORTER AND BREEDER

offers pigs of all ages, and the choicest strains of blood, at prices to suit the times. Imp. Windsor at head of herd. Also W. and B.P. Rocks, W. and S.L. Wyandottes, and Bronze Turkeys. Address,

553

**PARKHILL, ONT.**

### IMPROVED LARGE YORKSHIRES.

The winners of twenty first prizes at the World's Fair.

A number of young Boars and Sows for sale.

**ALL CHOICE STOCK.**



**JOSEPH FEATHERSTON,**

**PINE GROVE FARM.**

136

**STREETSVILLE,**  
P.O. and Telegraph, Ont.

### RED TAMWORTHS.



My breeding pen is almost all imported. The noted English herds are represented. Young stock of both sex for sale at all times. Also, some aged boars. Prices to suit the times. Parties wanting Tamworths should write.

**ANDREW DUNN,**

411

Ingersoll Ont.

# Polands

**BEST HERD IN CANADA.**

**ALL STOCK GUARANTEED.**

March pigs nearly all gone. Some excellent April and May pigs ready to ship.

Address,



**W. & H. JONES,**

488

**MT. ELGIN, Ont., Oxford Co.**

## FOR SALE

Four extra good bull calves (Ayrshire) and a few fine heifer calves, out of such bulls as Prince of Byron and Norman of Robertland. Also some very fine Berkshire pigs, of different ages, sired by Knowlton. All direct from imported prize-winning stock, and all registered.

**A. TERRILL, Wooler, Ont.**

226

POULTRY.

DUFF'S - - -

**White and Black Minorcas**  
**Barred Plymouth Rocks**

My birds have won highest honors at the largest exhibitions in the United States and Canada. To farmers who desire to increase the laying qualities of their flock, I hereby offer to supply them with cockerels of any of the above varieties for \$1.50 each. These will not be exhibition birds, but will be of the same blood as my winners, and quite as serviceable for improving the laying qualities of your flock. See prizes won at last Industrial.

518  
**THOMAS A. DUFF, Toronto, Canada.**

**BARRED PLYMOUTH ROCKS**  
**GOLDEN WYANDOTTES**  
**LIGHT BRAHMAS**  
**HOUDANS, ROSE COMB**  
**BROWN LEGHORNS**

All varieties of Games and Game Bantams.  
See our record at the Industrial and other shows.  
Write for Catalogue and prices. 545

**KENT & OLDRIEVE, Kingston, Ont.**

**BARRED PLYMOUTH ROCKS**  
**INDIAN GAMES**

Winners at Toronto Industrial, 1895. Specially fine young birds for sale cheap. Write for prices.  
546 **W. T. GIBBARD, Napanee, Ont.**

**WHEN**  
**IN WANT OF**

Barred Plymouth Rocks, Silver Grey Dorkings, Black Spanish, White Leghorns, Pekin Ducks, and Bronze Turkeys of the HIGHEST quality, at the LOWEST figure, write

**J. L. CORCORAN**  
**"Web-Foot Villa" Poultry Yards**  
**1380 QUEEN STREET EAST**  
**TORONTO**

N.B.—Now is your chance for Pekin ducks. Your pick of a thousand cheap. 508

**THEY MUST GO.**

The breeding season being over, and as we have raised a large number of very promising chicks we offer all this year's breeders for sale, which include several prize-winning and

**VALUABLE BIRDS.**

We have also a choice lot of early chicks that will make winners at the fall fairs. If you want anything in W., S., and G. Wyandottes, or B.P. Rocks, send for catalogue and particulars. Prices, \$1.00 to \$1.50. If you want the celebrated

**WEBSTER & HANNUM**  
**BONE-CUTTER** write me.



**JOHN J. LENTON,**

311 **Park Farm, - - OSHAWA, Ont.**

**ATTENTION!**

7 Black Minorca Cockerels; 3 White Leghorn Cockerels; 25 Barred Plymouth Rock Cockerels; 25 White Plymouth Rock Cockerels; 5 Black Hamburg Cockerels; 5 White Wyandotte Cockerels; several Golden Wyandotte Cockerels. All the above for sale at \$1.50 each. Now is the time to improve your stock. These are from the best prize-winning strains in America.

**ROBERT H. ESSEX** 563  
**13 Emerson Ave., Toronto, Ont.**

**SILVER POLANDS**  
**HOUDANS**

**DARK BRAHMAS**  
**BLACK MINORCAS**  
**BLACK SPANISH and**  
**BLACK LEGHORNS**

Young and old stock for sale. Highest awards at Montreal, Kingston, and Ottawa Exhibitions. Write for prices.

**A. W. GARRETT,** 558  
**P.O. Box 262, Brockville, Ont.**

*The "Toronto"*

**INCUBATOR AND**  
**BROODER..**

Won the SILVER MEDAL, the highest prize awarded, at the Toronto Exhibition, September, 1895, hatching more chickens in the show-room than all other competitors combined. Three American and three Canadian machines competing.

Catalogue and price list mailed on application. Address the manufacturer,

**T. A. WILLITTS**  
**542 Manning Ave. -513- Toronto, Ont.**

**Mammoth Bronze Turkeys**

**Silver Grey Dorkings**

**Black Minorcas** **Brown Leghorns**

BIRDS OF OUR BREEDING HAVE WON HIGHEST HONORS AT LEADING SHOWS THIS SEASON. A LARGE NUMBER OF CHOICE YOUNG BIRDS OF SIMILAR BREEDING. PAIRS AND TRIOS FURNISHED NOT AKIN.

**T. & H. SHORE . . . White Oak, Ont.**

## TO STOCKMEN AND BREEDERS

# LITTLE'S PATENT FLUID (NON-POISONOUS) SHEEP DIP AND CATTLE WASH.

For the destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.  
Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.  
Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy, and healthy.

The following letters from the Hon. John Dryden, Minister of Agriculture, and other prominent stockmen, should be read and carefully noted by all persons interested in Live Stock:

### "MAPLE SHADE" HERDS AND FLOCKS.

BROOKLIN, ONT., Sept. 4th, 1890.

DEAR SIR,—I cannot afford to be without your "Little" Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested, I have ever tried; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders.

JOHN DRYDEN.

17 Gold, Silver, and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in Large Tins at \$1.00.  
Special terms to Breeders, Ranchmen, and others, requiring large quantities. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc., to

**ROBERT WIGHTMAN, Druggist, Owen Sound.**

333

Sole Agent for the Dominion.

## To Exhibitors

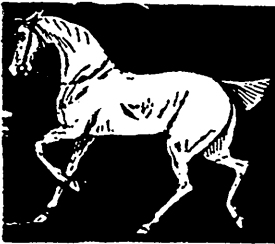
of

# Stock

at the

# Fall

# Fairs



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**DICK & CO** BOX 482, **MONTREAL.**

## Jottings.

**Cream Separator Patents.**—The De Laval Company has abandoned the older types of separator construction, and now uses what is termed the "Alpha" process, consisting of an interior device dividing the milk in the revolving separator bowl. It is this improved "Alpha" which the United States courts have sustained.

**Thornton's Circular.**—We have received Messrs. Thornton's record of Shorthorn transactions for the period from April 1st to June 30th of this year. The honors won by Shorthorns at the Royal and other shows are included in this. The prices realized at the sale of the herds of the late Thomas C. Booth are also given in this number, and we notice that sixteen head of Shorthorns were shipped by Mr. G. W. Ziegler to the United States.

**Report of Farmers' Institutes.**—A copy of the Report of Farmers' Institutes for 1894 is before us. About half the volume is taken up with the report of the meeting of the Central Farmers' Institute last year, while the rest contains the first report of Mr. F. W. Hodson, the new Superintendent of Institutes for Ontario. An excellent portrait and life of Dr. James Mills, President of the Ontario Agricultural College, and founder of farmers' institutes, is given, and a sketch of how the institutes developed under his care. Rules and instructions for better carrying on institute work occupy several pages, and several excellent papers read at meetings complete the report. Mr. Hodson must be congratulated on his first efforts in this line.

**The New Chatham Wagon.**—The Chatham Manufacturing Company, Limited, of Chatham, were represented at the Industrial Fair by the genial traveller of the company, Mr. A. E. Merritt, who took very great pride in going over the splendid exhibit, explaining the particulars of each wagon, and the very great improvements this company certainly has made in the construction and finish of farm and teaming wagons. He dwelt particularly upon the fact that he exhibited nothing more nor less in make-up and finish than the company is selling out of stock. The exhibit was not prepared specially for the fair, but to show buyers just what they may expect to get. On asking Mr. Merritt upon what he based his claim of offering superior wagons to any other, he said: "To put it shortly, I claim here just what the judges at the World's Fair at Chicago found when they gave us the medal and diploma. In the first place, our wagons are made of the best material in wood and iron. The tires are set cold, and exact and uniform dish given to the wheels, and the rims are not burned. Our malleable Giant arm is the greatest improvement ever made in wagon-building, and completely revolutionizes the construction of such vehicles, as they can be made very much lighter for any given capacity, and this is the secret of the great demand for the new Chatham wagon. Farmers do not want to be

**Jottings.—Continued.**

drawing around 150 or 200 pounds of wood and iron in their wagons when one that is much lighter will carry their load. The malleable adjustable stake and Acme end gate and beautifully grained boxes are only found on these wagons." The improvements referred to would seem to justify the claim set up by the company, that they have attained the acme of wagon-building.

**The Home Comfort Range.**—One of the most attractive exhibits at the Toronto Industrial Exhibition was that of the Wrought Iron Range Co., of Toronto, in the main building. The name "Home Comfort," by which these ranges are known, is a happy one, suggestive of all that is pleasing in that department of the household. The history of the wrought iron range is a remarkable one, while the reputation of their output is the most enviable and deserving of any similar firm in the world. The Home Comfort are guaranteed absolutely unbreakable, and will not crack or warp. The severest test may be applied to them. They may be smashed with a sledge-hammer or jumped upon by a two-hundred-pound man, but without the slightest effect. The object of the Wrought Iron Range Company is to supply the demand for a perfect wrought steel and malleable iron unbreakable range; hence the Home Comfort, which meets all requirements necessary in a perfect range to a degree that is astonishing in its practical demonstration. The best possible quality of iron is bought by the Home Comfort people. It is then treated in an annealing furnace, and rendered literally indestructible when transformed into a Home Comfort range. Internally the Home Comfort is perfect and unique. It is lined with asbestos, thus adding heat thrown upon the articles being cooked, and preventing the radiation of heat from the range. All the linings are in adjustable sections which can be easily and rapidly fitted. The other adjuncts of the Home Comfort are in complete accord with perfection, such as hot-air closets, simplicity in cleaning and dumping the ashes, and many other noticeable improvements over other ranges. An important feature in the business of the Wrought Iron Range Co. is that they do not sell to the *trade* at all, but deliver the Home Comfort from their own wagons and by their own authorized salesmen direct to the householder, thus having no dealings with outsiders. The superiority of the Home Comfort range over all others must not be forgotten in the fact that at the World's Columbian Exposition they received six highest awards; at New Orleans, four gold medals; and at the Midwinter Fair, San Francisco, six gold medals. These facts are a standing irrefutable proof of the unsurpassed qualities of the Wrought Iron Range Company' Home Comfort ranges, and we ask for them a careful inspection whenever and wherever shown.

**Stock Notes****Horses.**

MR. J. E. SEAGRAM, Waterloo, Ont., has recently imported five Thoroughbreds from England. Three of them are yearlings, and two are two-year-olds. One is a half-brother to Silk Gown. The pick of the lot is, probably, Golden Badge.

MESSRS. GRAHAM BROS., Claremont, Ont., have lately imported from Messrs. Andrew and William Montgomery, Netherhall and Banks, Kirkcudbright, Scotland, five Clydesdale stallions, all prize-winners. Among them is the well-known three-year-old horse, The Royal Standard, which has been so successfully shown by Mr. Leonard Pilkington. Included in the consignment also is the yearling Macgregor colt, bred by Mr. Parlane, Craigdhu, which was first at Kilmarnock; the noted Knight o' Lothian horse, Meridian, and the Macgregor horse, McClellan. The consignment is one of the most valuable that has left Scotland for a very long time.

**Cattle.**

MESSRS. T. BALLANTYNE & SON, Neidpath Stock Farm, Stratford, Ont., purchased at the recent sale of Messrs. D. Morton & Sons, Hamilton, Ont., a fine yearling bull calf, two cows, and a heifer.

MR. E. BUSS, Elphicks, Horsmonden, Kent, Eng., has been very successful in making sales of his pigs lately. An illustrated report of his herd has recently been made by one of the leading English papers, a copy of which we have, which shows the high character of this celebrated herd of pigs.

MR. H. BOLLERT, of the Maple Grove Stock Farm, Cassel, Ont., writes: I feel compelled to reduce my choice herd of Holsteins at least one-half on account of impaired health. I am unable to give them my personal attention and care, being often confined to the sick room, so I have concluded (very reluctantly) to offer them at such prices as will insure a quick sale. Every animal in the herd is for sale. The yearling daughters of my great Colanthus Abberkerk are a credit to their breeding, and should prove a great investment. The stock is doing nicely, considering the drouth and scarcity of pasture, but a large field of corn helps to overcome the latter.

**Swine.**

CAPT. A. W. YOUNG, Tupperville, Ont., writes: I have recently sold a pair of grand young Poland-Chinas and a sow and pig to Mr. Gastin Muirhead, Mandeville, Jamaica, West Indies.

**Sheep.**

MR. C. T. GARBUTT, Claremont, Ont., reports that he has, so far this fall, won seventeen first, two second prizes, and two diplomas. His two-shear and ram at Toronto won second, shearling third, and ewe lambs third. He is not exhibiting any pigs this year.



## BRITISH ADVERTISEMENTS.

Secretary to the National Sheep Breeders' Association of England and the Southdown Sheep Breeders' Association; Hon. Secretary Kent Sheep Breeders' Association.

**W. W. CHAPMAN,****PEDIGREE LIVE STOCK AGENT AND EXPORTER.**

All kinds of Registered Stock, Horses, Cattle, Sheep, and Pigs supplied on Commission.

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Registered address for cables—"Sheepcote, London."

**H. PENFOLD, Selsey, Chichester, Eng.**

REGISTERED SOUTHDOWNS, No. 4.

Established over a century. One of the best and purest of Southdown Flocks in England. Many prizes have been won for the last 30 years. Rams and Ewes always for sale; full pedigrees kept.

**Edwin Buss, Elphicks, Horsmonden, Kent, Eng.**

Breeder of Pedigree Large White Yorkshire and Berkshire Pigs. Highest awards at Royal Shows. Boars, Yelts, and in-pig Sows of either breed always for sale. Yorkshire boar in use, Holywell Bath (1799), winner of 10 firsts, 4 seconds, 2 reserves.

A few pedigree Bates-bred Shorthorns kept.

**KENT OR ROMNEY MARSH SHEEP.**

The Walmer Court Flock, established in 1852, duly registered and recorded in "The Flock Book of the Kent or Romney Marsh Sheep-Breeders' Association," has long been considered a leading flock, and has won over \$2,500 at the R.A.S.E., and other leading shows. Inspection and enquiries invited. Apply to the owner,

**H. PAGE**, Walmer Court, **WALMER, KENT, ENGLAND.**

**JAMES LAWRENCE, Stall Pitts' Farm, Shrivenham, Bucks., England**

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Registered Berkshire Pigs, from stock unsurpassed for true characteristics, size, and quality. One of the oldest established herds in England.

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**H. T. LOCKE-KING, Brooklands, Weybridge, England.**

Registered Southdown Flocks, 10 and 11.

Ewes individually numbered and full individual pedigrees of every sheep recorded in private flockbook. Rams and ewes always for sale, descended from all the best and purest blood. Shire horses also kept, bred from noted prize-winners.

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PUREBRED SUFFOLK SHEEP, from registered flocks, for exhibition or exportation. Full particulars may be obtained upon application to the Secretary of the Suffolk Sheep Society. Address

**ERNEST PRENTICE,**

Auctioneer and Commission Agent,  
Stowmarket, England.

**SIR THOS. BARRETT LENNARD, Woodingdean, Rottingdean, Brighton, England.**

Registered Southdown Flocks 7 and 8 at Belhus in Essex and Woodingdean in Sussex. Winner of many prizes, including the gold medal given by the Emperor of the French at Poissy; first prize, Fat Stock Show Lewes, 1892; and commended at Chichester, 1892. Full pedigrees kept, and all ewes numbered.

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**Selsey, Chichester, England.**

Flock of 1,000 ewes, winners Southdown Challenge Cup in 1893-4, 1st prize Wool; Jubilee, Royal, and Royal Prize Ram Lambs in 1892-93-94.

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**KIDNER EDWIN,**

LICENSED VALUER AND SALESMAN, breeder of Registered Dorset Horn Sheep, Shropshire Sheep, and Devon Cattle. All commissions personally executed. Address: **MANOR FARM**, Cothelstone, Taunton, Somerset, England.

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### HORSES.

**D**ANIEL BRIMS, Atheltan, Que., Breeder of purebred Clydesdales, Shorthorns, and Shropshire Sheep. Stock for sale. 523

**S**PRUCEDALE FARM, Owen Sound, John Harrison, Prop., Breeder of English Thoroughbred Horses (Registered in English Stud Book) and Shropshire Sheep. Stock for sale. 295

### SHORTHORNS

**A**LEX. BURNS, Maple Lodge Farm, Rockwood, Ont., Breeder of Shorthorn Cattle. Young stock or sale. 422

**W**M. DONALDSON, Huntingford, South Zorra P.O., Ont., Breeder of Shorthorns and Shropshire Down Sheep. 294

**W**M. DOUGLAS, Caledonia, Ont., Breeder of Shorthorn Cattle. Young stock for sale at all times. 394

**W**M. TEMPLER, Breeder of purebred Shorthorn Cattle and Berkshire Pigs, Wood Lawn Farm, Jerseyville P.O., Ont. Telegraph Office and R. R. Station, Copetown, G.T.R. Young stock for sale. 199

**H**ENRY SMYTH & SONS, Chatham, Ont., Breeder of pure Shorthorn Cattle. Young stock for sale. 204

**H**K. FAIRBAIRN, Rose Cottage, Thedford, Ont., Breeder of Scotch Shorthorn Cattle. Stock for sale. 407

### GALLOWAYS.

**A**M. & R. SHAW Brantford, Ont., Breeders of Galloway Cattle. Choice young animals for sale. 360

**D**AVID McCRAE, Janefield, Guelph, Canada, Importer and Breeder of Galloway Cattle, Clydesdale Horses, and Cotswold sheep. Choice animals for sale. 251

### AYRSHIRES.

**T**GUY, Sydenham Farm, Oshawa, Ont., Breeder of Ayrshire Cattle, Southdown and Leicester Sheep. 398

**J** McCORMACK, Rockton, Ont., Breeder of Ayrshire Cattle, Toulouse Geese, and Colored and Silver-Grey Dorkings. 252

**W**M. & J. C. SMITH, Fairfield Plains, Ont., Breeders of World's Fair prize-winning Ayrshires, Merino Sheep, Poland-China Pigs, and Poultry. Stock for sale. 526

**J**YUILL & SONS, Carleton Place, Ont., Breeder of Ayrshire Cattle, Shropshire Sheep, and Berkshire Swine. 240

**W**F. & J. A. STEPHEN, Brook Hill Farm, Trout River, Que., Breeders of Ayrshire Cattle and Yorkshire Pigs. Young stock for sale at reasonable prices. 243

**T**HOMAS IRVING, Montreal, Importer and Breeder of Ayrshire Cattle and Clydesdale Horses. Choice young Ayrshire bulls and heifers bred from Chicago winners for sale. Write and get prices and other particulars. 296

**W**ALTER NICHOL, Plattsville, Ont., Breeder of Ayrshire Cattle and Leicester Sheep. Choice young stock for sale. 527

## JERSEYS.

**W**M. ROLPH, Glen Rouge Farm, Markham, Ont., Breeder of Jersey Cattle. Herd nearly all pure St. Lambert. Young stock always for sale at reasonable prices. 338

**H**AIG BROS., Menie, Breeders of Jersey Cattle of the best prize-winning strains. Farm close to Hoard Station, G.T.R. 225

**D**H. KITCHESON, Menie, Ont., Breeder of A. J. C. C. Jerseys, Shropshire Sheep, and Berkshire Pigs. Stock for sale. Hoard's Station (G.T.R.). 368

**R**OB. REESOR, Locust Hill, Ont., Breeder of Jersey Cattle and Shetland Ponies. Young stock for sale at reasonable prices. Locust Hill is 20 miles from Toronto on the C.P.R. 361

**J**H. SMITH & SON, Willow Grove Farm, Highfield, J. Ont., Breeder of St. Lambert and St. Helen's Cattle. Prize herd at the last Industrial. Young stock for sale. 297

## DEVONS.

**W**J. RUDD, Eden Mills, Ont., Breeder of Devon Cattle, Cotswold and Suffolk Sheep, Berkshire Pigs, Plymouth Rock Fowls, and White Turkeys. 380

## SWINE.

**W**M. SINCLAIR, Varna, Ont., Breeder of Poland-China Swine. Stock for sale. Write or call. 451

**F**OR the finest Tamworth Swine correspond with H. FEARMAN, Hamilton, Ont. 266

**M**H. PARLEE, Sussex, N.B., Breeder of Large Yorkshire and Berkshire Pigs, Light Brahmas, Silver Laced Wyandottes, and Black Plymouth Rocks. Choice stock for sale. Write for prices. 359

**W**H. O'DELL, Belmont, Ont., Breeder of Registered Tamworth Pigs. Stock for sale. 374

**T**AMWORTH Swine, Oxford Sheep, Collie Dogs, Bronze Turkeys, Toulouse Geese, Pekin Ducks, and Buff Leghorns. A. ELLIOTT, Pond Mills, Ont. 406

## SHEEP.

**J**AS. P. PHIN, The Grange, Hespeler, Ont., breeding and importing Shropshire Sheep a specialty. 363

**A** TELFER & SONS, Paris, Ont., Breeders and Importers of registered Southdown Sheep. Stock for sale. 241

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THE CLYDESDALE MARE, DARLING (1073), AND SIX OF HER DESCENDANTS,

# FARMING

Vol. XIII

OCTOBER, 1895.

No. 2.

## Discouragements of Farm Life.

No one can deny that farming is oftentimes attended with many discouragements, and these are, occasionally, of a nature to give even the most hopeful farmer a fit of the "blues." Crops that promise well are damaged, or spoilt by frost, drouth, rain, hail, cyclones, floods, or insect loes; animals die, or abortion runs through the herd; fire or lightning destroys outbuildings, filled, perhaps, with the season's crop. Such and similar afflictions are sufficient to discourage even the lightest-hearted farmer, and yet the proportion of farmers that give up farming, after undergoing any of the losses that we have mentioned, is uncommonly small. Farmers are, as a rule, a hopeful class, and when one year the crops are below the average they plod steadily on, hoping for better luck the next season.

It is certainly well that this is so, for, as we have said above, farmers have many discouragements, and, therefore, their ability to bear up under them is so far helpful to them. When we bear our troubles easily, the troubles seem to be so much the lighter.

If the farmer has many discouragements to face, he is still, however, we believe, in a better position than many of those who dwell in the towns and cities. He is independent, in most cases, has the advantages of health, pure fresh air, and water, and can get a living, at least, off his farm, which is what many a city merchant cannot do out of his store.

The latter, too, may, through fire, lose his all in one night, and be unable to start up again.

For these and many other reasons, the lot of the dweller in the country is preferable to that of the townsman. Testimony to this is borne by the fact that many of the latter, when well enough off, purchase farms to which they and their families can retire from the bustle of the city for a portion of the year, at least, and these farms prove a never-failing source of delight to their owners, and, in many cases, also a source of income to them, when they are run

on business principles. In spite of discouragements, then, the farmer has much in his favor, and the one who would drop his present occupation, hoping to better himself in some other profession, would, in all probability, lose the substance while grasping for the shadow.

## After the Fairs.

The various fall exhibitions, which have been and are still being held, act as valuable recruiting sergeants for our breeders' ranks. He must be a very thick-skinned and out-of-date farmer, indeed, who does not feel incited, by the sight of so many fine animals brought together, to try, in a small way, to emulate those breeders in improving his own stock. The younger generation, especially, feel thus encouraged, and each year, as it comes round, means a considerable addition to the ranks of our breeders and live stock men. It is thus that the ranks are kept up and, indeed, augmented when, through death and other causes, some of the older breeders drop out.

There are some persons who see no use in an exhibition. They say that they see the same things year after year, and that it is waste of time going to them. These are the people who walk listlessly and aimlessly through the stables and buildings, without troubling themselves to look carefully at the exhibits or make any enquiries of the exhibitors. If only they were minded they could find many changes and improvements in all the departments. They would find noticeable changes for the better, for instance, in agricultural implements and machinery. They would discover that emulation among breeders and exhibitors had caused them to pay every attention to bring out their best animals, and that, too, in the best possible condition. If there were no shows and no rivalry, what equal incentive would there be for the breeders to improve and care for their animals? They would, doubtless, attend to them in a manner, but, still, if the emulation were lacking, there would certainly be a falling off. "Competition is the soul of trade" here too.

So far from being useless, our exhibitions are valuable instruction grounds for those who care to learn, and we venture to say that the number of those who are anxious to learn and improve is increasing every day. This is as it should be. The greater knowledge we can bring to bear on our farming operations, the more successful we shall be, and the better able to hold our own in competition with other nations. The British farmer is finding this out by degrees. He has so long clung to the methods of farming practised by his father and forefather, that he is getting beaten all round in competition with the world, although himself right at the market gates, so to speak, while his competitors, some of them, are thousands of miles away. As soon as he learns how to do better, he will then stand a better chance in the severe competition that he has to undergo.

---

### Oleomargarine.

The conflict between the dairymen and oleomargarine is still raging in the United States. In Canada that question was settled some time ago by the passing of a Dominion Act forbidding its sale. In some parts of the United States oleomargarine is a serious competitor with butter, and, being sold as such, as the firms manufacturing it are wealthy and powerful, they have hitherto defeated the efforts of the dairymen to have it either sold as oleomargarine or else proscribed altogether. The failure to win the day is, as usual, caused by the lack of co-operation among dairymen and farmers. If these would only combine and work together, there would soon be a law passed compelling the manufacturers of oleomargarine to sell it as such.

---

### The Manitoba Wheat Crop.

The wheat crop in Manitoba and the Northwest provinces, as was expected, turned out a magnificent one, but the prices now being paid for wheat in those parts are lower than was hoped for. This is to be regretted for many reasons, because good prices would have brought much-needed money to the farmers of the Northwest.

A good crop, however, and good prices, would not have been an unmixed blessing. Too many farmers in that prairie country have pinned their faith to wheat year after year, and have neglected other and more pro-

fitable branches of farming. In spite of the lessons that they could have learned from more far-sighted men, they have refused to abandon wheat, even when their crops were smitten by frosts and their land got "wheat-sick" and weedy, and failed to produce crops as heavy as it formerly did. To such men a heavy crop and high prices would only have been an encouragement to continue on in their foolish ways.

If the farmers of those regions are wise, they will not "put all their eggs into one basket." The breeding and feeding of live stock is still in its infancy in the Northwest, and must develop largely. The great impetus given to cattle feeding by the shipments made this year by Messrs. Gordon & Ironsides is bound to bring this about. Wherever farmers have gone into this branch of farming intelligently, they have done well. Then there is hog-raising. Manitoba has had to import pork to supply the demand, while her farmers have almost given away their frozen wheat instead of breeding and buying pigs and making money out of them, and utilizing their wheat to good advantage in that way. Dairying, too, is bound to become more general as settlement advances, and, with the increase of dairying, hog-raising will also progress, as the two go so well together.

Diversified farming, then, should be the aim of every farmer in Manitoba and the Northwest, so far as practicable. While not neglecting wheat, let them not make it their sole resource, but merely a branch of their business. Then, if untimely frosts injure their crops, they will still have something to fall back on, and something profitable withal.

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### The Chicago Fat Stock Show.

The pronounced failure that has attended the efforts of the Illinois State Board of Agriculture, during the past few years, to hold a fat stock show in Chicago worthy of the city had stirred them up to make more strenuous exertions to make the coming show, which was to have been held from October 23rd to November 2nd, a great success. The fine Coliseum building, which was being erected, was to have been the home of the show, and there was every reason to hope for an excellent display this year.

These hopes have now been dashed to the ground by the collapse of the building, which was well on towards completion. As there was no other suitable building available, and

the new building could not be completed by the date set for the show, the Illinois State Board of Agriculture have formally abandoned it for the present year, and there will be no horse or fat stock show held in Chicago till the fall of 1896.

### Algoma as a Farming District.

Hon. John Dryden, Minister of Agriculture for Ontario, spent some time, during August, inspecting the new experimental dairy farm recently established by him in western Algoma, on the line of the Canadian Pacific Railway. This farm, as will be remembered, has been started, in a modest way, to show the possibilities of that part of Ontario, hitherto considered a rocky waste, for farming and dairying. The farm is to be run exactly as it would be run by an intelligent and progressive farmer settling in those parts. A log house has been erected, and a barn is now being built. It was impossible, during this season, to do much in the way of crops, but what was sown turned out well, as was evidenced by the excellent sample sheaves of wheat, oats, and barley on exhibition at the Toronto fair. Next season, when things are in good shape, better results can be expected. The corn and potatoes that were tried this year were spoilt by the wet weather. On the whole, there is every reason to believe that great results will ensue from this undertaking.

What is very important to be known is that there are large districts of land in Algoma, suitable for farming, the quality of the soil of which is unsurpassed. Of course, there is a good deal of land totally unfit for farming, but still a large portion of Algoma will be found suitable for farming purposes, and settlers should bear this in mind. They may go further and fare worse.

### A Libel on Canadian Cheese.

The *North British Agriculturist*, of Edinburgh, Scotland, has always shown such a spirit of fairness and friendship towards Canada that when, in the issue of September 4th, it stated, on what it called good authority, that a "considerable portion of the so-called full-milk cheese from Canada is really made from separated milk, fattened with oleo, which is very difficult to detect, and that this is the reason why Canadians are able to undersell the British farmers," considerable excitement and indignation were created among all connected

with the cheese industry of this country. In view of the strong competition, with other countries in this trade, great harm was likely to ensue to our cheese trade in consequence of such a monstrous statement getting abroad, although every one who knows anything about the matter knows perfectly well that no "filled" cheese are made, or can be made or imported into this country under penalty of severe punishment.

Strong representations were at once made to the editor of the paper in question by our High Commissioner, Sir Charles Tupper, and, in consequence, the statement has been retracted by the editor in a recent issue, as he finds that the cheese he referred to was American, and not Canadian.

This is satisfactory as re-establishing the good name of our cheese. If there is one thing that we pride ourselves on it is our cheese, and we are constantly trying to improve our methods of making, and to get all our cheese factories to attain to the exceedingly high standard of make reached by a large proportion of them. Our neighbors to the south, unfortunately, are not so particular in guarding their cheese interests, and "filled" cheese are largely made in some of the states, to the ruin of the cheese industry. A strong effort is being made by dairymen to change this by enacting laws against "filled" cheese. Let us hope that they will be successful.

### The Commerce of Canada.

The United States Secretary of Agriculture has issued Bulletin No. 4 of the "World's Markets" series. This treats of Canada, which has become a great competitor of the United States in foreign markets.

This bulletin shows that the total exports of Canada increased from \$89,000,000 in 1885 to \$118,000,000 in 1894, or 33 per cent.; the imports from \$109,000,000 to \$123,000,000, or 13 per cent.; and the total trade from \$198,000,000 to \$241,000,000, or 21 per cent., during the same period. The largest proportional annual increase was in 1892, when the value of the total trade exceeded that of the preceding year about 11 per cent. During the years 1888 to 1891, inclusive, the trade of Canada with the United States exceeded that with any other country; since then the United Kingdom of Great Britain and Ireland has taken first rank, with the United States second.

An important fact is that a large share of the agricultural products going abroad from

Canadian seaports are cereals and flour in transit from the United States. Of \$27,000,000 worth of such products shipped last year \$9,000,000 was American merchandise.

The bulletin mentions the increased attention that has been given by the Government of Canada of late years to dairy interests in encouraging the dairy associations throughout the country and passing strict sanitary laws regulating the manufacture of cheese and butter. No adulterations can be used, and the importation, manufacture, and sale of oleomargarin and other similar substances are prohibited.

Though the quantity of butter exported decreased from 10,500,000 pounds in 1868 to 5,500,000 pounds in 1894, nearly 50 per cent., the value declined from \$1,700,000 to \$1,100,000, or only about 30 per cent. This indicates improvement in the quality of butter exported.

The export of cheese has increased notably. While in 1868 it was 6,141,570 pounds, valued at \$620,543, in 1894 it rose to the large figure of 154,977,480 pounds, valued at \$15,488,191.

Mention is made of the fishing industry and forest products. The value of the former in 1894 was over \$30,000,000, and of the latter for 1894 over \$80,000,000.

Of wood pulp, in 1894, the United States alone imported from the Dominion \$369,010 worth.

The bulletin contains reports from thirty United States consuls.

### Death of Mr. Rivers.

The hand of death has been very busy of late among Shorthorn breeders. On August 10th there passed away, at the good old age of 70, Mr. R. Rivers, Walkerton, Ont., who has for many years been known as a breeder of Shorthorn cattle and Berkshire pigs.

The deceased was born in Berkshire, England, and came to this country with his parents in 1833. On his marriage he took up his present farm, then in bush, and started to clear it and erect the necessary buildings. To the farm the name of Springhill Farm was given, a name by which it is widely known. The deceased always took a great interest in all matters connected with stock-raising, and was a prime mover in starting an agricultural show at Walkerton, of which he continued a director till the time of his death. He was also president several times.

His son William will now conduct the management of the farm and stock, and will, doubtless, maintain their present excellence.

### Death of Mr. William Douglas.

We regret to announce the death of Mr. William Douglas, of Onondaga, Brant county, Ont., a well-known Shorthorn breeder, which took place on August 16th. Deceased was a native of Scotland, and settled near the Grand River about fifty-five years ago. As a breeder and importer of Shorthorns he was well and favorably known. He had acted as a councillor of the township of Onondaga for many years, and was highly respected. He was 78 years old at the time of his death.

### Death of Mr. Frank Row.

We have to record the death of another of our prominent stockmen in Mr. Frank Row, Avon, Ont., who passed away during the first week of the Industrial Exhibition. A number of his Poland-China and Tamworth swine had been forwarded to Toronto, and were successful in carrying off their share of winnings. Mr. Row (aged twenty-nine years) was the youngest of three brothers, all of whom were well known to a large number of our readers, and who have been long identified with the importation of horses and swine. The deceased was a keen judge and most successful breeder, and had gained the confidence of a large number of customers.

### Live Stock Breeders' Meetings.

The Dominion Sheep Breeders' Association met on the Wednesday afternoon of the second week, in the tent of the Superintendent of Farmers' Institutes, at the Industrial Exhibition grounds, Toronto. Mr. John Jackson, Abingdon, in the chair. The meeting was largely attended by prominent breeders. The constitution and by-laws were revised in accordance with the new Agriculture and Arts Act. Mr. J. C. Snell, Edmonton, and Mr. John I. Hobson, Mosborow, were elected to the Record mittee.

A meeting of the Swine Breeders' Association was held on Wednesday evening in the same place. Mr. Daniel DeCoursey presided, and there was a representative attendance, including all the prominent breeders of the province. The constitution and by-laws were revised so as to conform with the new Agriculture and Arts Act. Mr. Joseph Brethour, Burford, and Mr. Joseph Featherston, M.P., Streetsville, were elected to the Record Committee.



The Dominion Cattle Breeders' Association also met that evening in Mr. Hodson's tent. Mr. Arthur Johnston, of Greenwood, took the chair in the absence of the president. After reading the minutes, the question of a new constitution and by-laws was discussed. Hon. John Dryden was present, and delivered an address on matters connected with the Department of Agriculture and kindred topics. The question of a new stock register was talked over, and deputations appointed to act on this and other matters with other associations. In a discussion on the cattle trade, Mr. Dryden suggested that the quarantine be removed from cattle coming from the United States, so that Canadian cattle can go to the United States without being quarantined. Mr. John I. Hobson gave an address on the aims and objects of the association. The following directors were elected: Shorthorns, Arthur Johnston, Greenwood; Herefords, A. Rawlings, Forest; Polled Angus, Wm. Stewart, Lucasville; Galloways, D. McCrae, Guelph; Ayrshires, W. W. Ballantyne, Stratford; Holsteins, D. E. Smith, Churchville; Jerseys, J. C. Snell, Edmonton; Guernseys, C. H. McNish, Lyn; Devons, W. J. Rudd, Eden Mills.

An informal meeting of the Jersey Breeders' Association was held during the fair. Questions of interest to breeders with reference to accommodation and judging at the fair were discussed, without any action being arrived at.

A meeting of the representatives of the various stockbreeding associations was subsequently held in the tent of the Superintendent of Farmers' Institutes to arrange for the registry provided for under the new Agriculture and Arts Act. There were present: Hon. John Dryden; James Russell, Richmond Hill, and A. Johnston, Greenwood (Shorthorns); F. A. Fleming, Toronto, and A. Rawlings, Forest (Herefords); James McCormack, Rockton, and W. W. Ballantyne, Stratford (Ayrshires); F. W. Charlton, St. George, and W. G. Clemons, St. George (Holsteins); Robert Davies, Toronto, and D. McCrae, Guelph (Clydesdales); Robert Beith, M.P., Bowmanville, and N. Awrey, M.P.P., Binbrook (Hackneys); John Gardhouse, Highfield, and H. N. Crossley, Rosseau (Shires); Joseph Featherston, M.P., Streetsville, and J. E. Brethour, Burford (Swine); J. C. Snell, Edmonton, and John I. Hobson, Mosboro' (Sheep Breeders' Association); John Jackson, Abingdon, and F. W. Hodson, Guelph (Sheep Record Association); John McMillan, M.P., Seaforth,

and Charles Mason, Brucefield (Dominion Draught Horse Society).

Mr. Dryden carefully explained the proposed new order of things. His explanation, in substance, was as follows: The government may appoint a Superintendent of Registration, who will receive from the government, independent of the fees received from the associations, a yearly salary of \$1,500, and a free office, lighted and heated. Each association will be left free to conduct its own records, or to allow the superintendent to edit them at a price per pedigree, to be jointly agreed upon by the Minister and the officers of the associations. If any association makes an agreement with the Minister and afterwards finds that the arrangement is unsatisfactory to the majority of the officers or members, the said association shall be at liberty to withdraw from the agreement and remove to any other office all the books, blanks, etc., that pertain to said association. It shall be left to each association to finally decide on terms; if these are acceptable to the Minister, the work will be gone on with as proposed.

All the associations represented were willing to enter into the co-operative arrangement for keeping the registration except the Holstein-Friesian Association.

It was moved by Mr. Arthur Johnston, seconded by Mr. J. E. Brethour, and carried, that each association shall, through the present representatives, meet the Minister of Agriculture, and, together with him, arrange terms upon which they will employ the services of the Superintendent of Registration.

It was decided, upon motion of Mr. D. McCrae, seconded by Mr. James Russell, that a fee be paid the Superintendent of Registration, and that a sum be agreed upon, with the approval of the Hon. Minister of Agriculture, between those concerned, to be retained as pay for clerical work.

### Canadian Horse-Breeders' Association.

An initiatory meeting of the Canadian Horse-Breeders' Association was held in the Albion Hotel on the evening of September 10th. There were present Robert Davies (in the chair), Toronto; Dr. Andrew Smith, Toronto; George Pepper, Toronto; John Holderness, Toronto; N. Awrey, M.P.P., Hamilton; James Cochrane, Hillhurst, Que.; G. W. Bowker, Woodstock; A. Wilson, Paris Station; D. Sorby, Guelph; James Davidson,

Ashburn; Alex. Galbraith, Janesville, Wis., U.S.; R. Beith, M.P., Bowmanville; R. Graham, Claremont; Neil Smith, Brampton; H. N. Crossley, Rosseau; R. Miller, Brougham; G. H. Hastings, Deer Park; and Henry Wade, secretary, Toronto.

Mr. Wade explained the object of the meeting, which was for the purpose of forming a Canadian Horse-Breeders' Association for the purpose of holding exhibitions and encouraging the breeding of better classes of horses, the association to take the place of the Agriculture and Arts Association in that respect. He suggested that two members be chosen for each horse association now in existence, to form the directorate of the proposed association.

After a lengthy discussion, a motion was passed to this effect, and provisional directors were appointed as follows: Clydesdale Association, Robert Davies and David McCrae; Hackney Horse Association, Robert Beith, M.P., and N. Awrey, M.P.P.; Shire Horse Association, J. Gardhouse and H. N. Crossley; Standard-Bred Trotters' Association, president and secretary; Thoroughbred Horse Association, Dr. Smith and George Duggan.

These directors will meet as soon as possible and adopt by-laws, and a general meeting will then be called for the election of officers and other business.

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### Ontario Poultry Association.

A meeting of the Board of Directors of the above association was held in Toronto, at the offices of the Industrial Exhibition Association, on Wednesday, September 11th, last, the president, Mr. Henry White, in the chair. Every member of the board was present.

The question of the construction of the wire coops donated by the Ontario Government was thoroughly gone into, and a committee appointed to see that the board's instructions were carried out.

Messrs. Thomas A. Duff, Toronto; Herbert Page, St. Marys; and George Nichol, Cataraqui, were named as representatives of the association to address farmers' institute meetings upon matters appertaining to poultry.

The following new varieties were added to the list: Buff Plymouth Rocks, Buff Wyandottes, Buff Leghorns, and White Langshans. Show Homers and White Jacobins were added to the pigeon list. A class was also made for dressed poultry and eggs.

It is to be hoped that there will be a large exhibit. The Port Hope fanciers are working hard to make the 1896 exhibition the finest in the history of the association, and it is to be hoped their efforts will not prove in vain.

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### Good Roads.

A meeting of the executive of the Ontario Good Roads Association was held in the Press building at the exhibition grounds during the second week of the Industrial Fair, Toronto. In the absence of President Pattullo, Vice-President J. F. Beam, of Welland county, occupied the chair. The other members present were Messrs. J. C. Judd, Leeds county; J. Sheppard, Lincoln county; James Beattie, Elgin county; A. W. Campbell, C.E., St. Thomas; R. J. Jelly, Jellyby; Edward Kidd, North Gore; and Secretary K. W. McKay, St. Thomas. The progress that the association has been making was considered, and arrangements completed whereby good-roads speakers will be available at every farmers' institute, dairymen's and other kindred association meetings during the coming season. Further bulletins will be issued for the information of municipalities, in a number of which a plebiscite on the statute labor question will be taken during the municipal elections. The formation of local associations is desirable, and the central association will cooperate in every way by sending speakers and furnishing information.

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### Notes from Great Britain.

(By Our Own Correspondent.)

#### SHEEP.

August and September are the months for the great ram sales in the southern and midland districts of England. The season has, so far as the Shropshires, Hampshire Downs, and Southdowns are concerned, the sales of which are now chiefly over, been one of good demand and fair prices. Some few lots have made exceptional prices, and these we deal with in detail hereunder. The great sales of Lincolns and Fents are just about due now, and will be fully reported upon in our next. The tendency of the trade in sheep has been most gratifying to all concerned, and everything points to the conclusion that the "golden hoof" still holds its own here at home, notwithstanding all the competition it has to contend with from our brothers across the water.

At the sale of Mr. Penfold's Southdowns there was a very active demand, and the prices realized were as follows: 90 shearling ewes averaged \$20.86 per head; 60 four-tooth ewes averaged \$16.64; 50 six-tooth ewes averaged \$16.76; 90 full-mouth ewes averaged \$15. The rams, of which there were 36, sold readily, making a grand average of \$61.50 each. Mr. Penfold did not sell right out, but kept all his ewe lambs, old draft ewes, and ram lambs, with which to start a new flock, which flock will be bred upon exactly the same lines as heretofore, and will be directly descended from that grand flock now dispersed.

Mr. W. Toop's sale of his entire flock was

and the reception they met with clearly proves that this breeder has got well to the top of the tree in his breed of sheep. The success that has attended his efforts is such as we know personally he thoroughly deserves, and we are sure we echo the feelings of all Shropshire breeders when we say, Long may he continue to occupy his present exalted place!

As showing the value of pedigree breeding, we may mention that his first and second prize shearling sheep, as well as his pen of three first-prize ram lambs at the Royal show this year, were all got by the same sheep, Montford Drummer, for which he gave \$875 in 1893, thus showing the value of a good and, we may add, very cheap sire. The sale com-



SNAP SHOTS AT THE TORONTO EXHIBITION. No. 1.

very successful, especially when we consider the splendid average made by the ram lambs, which made an average of \$35.50 each for 44 head, and this, remember, for lambs dropped from February to March. These were literally scrambled for. The prices realized for all kinds were: 94 shearling ewes averaged \$18.30; 79 two-tooth ewes, \$19.36; 40 six-tooth ewes, \$18.48; 115 full-mouth ewes, \$15; 115 ewe lambs, \$12.50; 36 old rams and shearlings, \$71.75; 44 ram lambs, \$35.50. Mr. Toop's entire flock was sold, none being left.

Mr. A. E. Mansell's Shropshires at his annual sale and letting made the top price of the season. They were shown in grand form,

menced by the letting of the services of the ram Darlington, to serve 30 ewes at home, and this was secured by Mr. Graham at the fee of \$525. Other rams followed for sale, making prices from \$375 to \$225, and then came the shearling ram, Lot 9, for which Mr. P. L. Mills gave the high price of \$1,150. The prices then dropped a bit, but only a little way, for the stuff was far too good for low prices. Mr. Davies secured Lot 12 for \$260. In figuring up the rams, we find that, including the one lot, 45 rams made an average of nearly \$210 per head. The 45 shearling ewes made \$25.50 per head.

The annual ram lamb sale of Hampshire Downs belonging to Mr. J. Flowers took

place on August 12th, and it was remarkable for the very successful prices that were made. There were, first of all, eight lambs to be let for the season, and these met with a very active demand, the highest price being made for No. 6, who went to Mr. E. Hayter for \$475, the average for this lot being \$117.50. Eighty-nine were then offered for sale, and the prices ran from \$27.50 to \$110. Three shearling rams were also offered, the grand average for ninety-nine ram lambs and three shearling rams being \$53 per head. This is an excellent showing, for it must be borne in mind that all were lambs that were born in January and February of this year, and thus, at about nine months old, made an average of more than \$5 per month.

Suffolk sheep have had a very good year, but there has been no such outstanding prices as call for special remark. These sheep are a very useful breed, and are doing a good work for the farmers in their own particular district, whilst, at the same time, they are very much appreciated in those new countries to which they have been sent.

Mr. John Treadwell's annual sale of Oxford Downs was another success, and to the genial and hospitable host it must have been a pleasure to see how well his truly grand lot of sheep were appreciated by the public. There were sixty shearling rams offered for sale, and the average price made was \$97 per head for the lot. The highest price reached was for Jumbo (which sheep, by the way, is full brother to the ram that made \$750 last year), which was ultimately secured by Messrs. Hobbs at the high price of \$500.

The trade in pedigree pigs continues to be one of a very satisfactory nature, both for home and foreign buyers. Mr. E. Buss reports numerous sales to customers from all parts.

#### CATTLE.

The general cattle trade of the country is moderately good. Beef is selling fairly well, and the supply of store stock is again said to be very short. The question of importation of cattle in store condition from your country continues to crop up every now and again, but, to my mind, I consider it is nonsense, and totally at variance with your true interests, both present and prospective, for your farmers to want to send us their stock over here lean. I have said before, and I repeat it, that the best thing for your country is to put a stop, once and for all, to the trade in lean cattle. Why do you want to send away

several other industries as well as cattle fattening? For this is what you do. If the cattle were fatted and killed at home, your land would be enriched instead of impoverished, and your tanners would find constant and increasing employment in dressing the skins. I know your farmers say that we urge this stoppage for protective purposes. This is not so, for we do not believe in protection in that way, but we do believe in protection against disease. Our herds and flocks are far too valuable to run any risk of contamination with diseased animals. I do not mean to say that you have any cattle disease; but I do say, and repeat emphatically, that there is, and always will be, a danger that cattle, which are cooped up in close quarters for some time, as yours must be, may be the means of breeding disease, etc., from the fact that they must and do breathe vitiated air, and thus, perhaps, when one least expects it, get infected with disease of some kind or other. Let your farmers, therefore, instead of agitating and trying to get what they cannot have, work and get what they can get, and that is a first-class trade both in beef and mutton of the primest quality, by killing at home and sending over here in a chilled state their primest bullocks and sheep, which, I feel sure, will at once command a ready sale in all our chief markets.

#### HORSES.

Our trade in the Hackney world seems to be such that there is no limit to prices for the best bred animals. Sale after sale takes place, and still the demand continues, and appears likely to do so for some time to come. Speaking generally of the ordinary trade, one is pleased to find how greatly appreciated are the horses which we are now and have been for some time getting from you and elsewhere. In fact, I saw in one of our daily papers a statement that after being broken and worked for some time in our tramway cars they were worth more than they cost by some \$8 to \$20 per head, whereas our English-bred horses seldom, if ever, get worth more than first cost. This speaks well for the stamina, etc., of these foreign-bred horses, and it behooves your breeders to look well after this trade, which bids fair to be both useful and lucrative to them.

#### GENERAL AGRICULTURE.

Our harvest is almost all completed, and it must be classed as a disappointing one in almost every way. Wheat is a very poor crop and prices are very low. Barley in some

cases is very good, but can only be classed as fair all through, while prices are fairly satisfactory. Oats are fairly good, while roots of all kinds are very uneven, indeed, owing to the drought. The late rains in August have enabled many to sow hundreds of acres of green, round turnips, rape, and thousand-headed kale, which bid fair to make a good lot of food, whilst the preparation of the land for rye, winter barley, and trefolium is being pushed on with vigor. Our clover plants are fairly good, and the prospects of autumn keep as good as one would wish them to be, so we shall not feel the pinch until we get into frost and snow, and then with a short supply of mangels and hay we may be in a bit of trouble for keep. The general opinion appears to be that whilst beef will range at about \$1.08 per 8 lbs., we shall see best mutton reach \$1.68 per 8 lbs. before November is out.

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### Selection of Seed Grain, Etc.

To the Editor of FARMING:

SIR, — Having for some years made a specialty of growing seed grain, I am continually asked: "What is the best variety of certain kinds of grain to sow?" So much depends on the kind of land the grain has to be grown on that, unless a person knows, it is impossible to tell what variety to recommend. One variety will often do very well on heavy land, while the same will hardly be worth cutting on light soil, and *vice versa*. As a rule, I think long-strawed varieties do best on light soils; and shorter-strawed kinds on heavy. Late varieties of oats often do better on the former soil than early kinds, especially in dry seasons, as they are often benefited by rains which arrive too late to help the early ones. On heavy land early varieties often escape rust. In selecting seed grain try to get it with these qualifications: Large yield, good quality, stiff straw, and freedom from rust and smut. It is a good plan, if your land is heavy, to get seed that has been grown on light soil, or, if your land is light, the reverse.

Some farmers say: "I have a piece of poor land, and I want to put oats on it. What variety shall I sow?" I have often seen advertised and read of certain kinds of grain being adapted to poor land, but have not yet known a good crop off a really poor piece of land. My answer to the above question is, Feed your land first, as it is impossible to

raise a good crop otherwise. It is something like expecting a horse that is practically all skin and bones to do a good day's work. }

Another very important point in selecting seed is to get it pure and free from foul seeds. It is very easy to sow the latter, but it is a very different matter to eradicate the weeds that grow from them. Professor Shaw's book, "Weeds, and How to Eradicate Them," should be in the home of every farmer.

I would also advise farmers to carefully look over the reports of the Experimental Farms on grain, etc., as so many different varieties are reported on which have been grown on the above farms, and also in different sections of the province.

J. E. RICHARDSON.

PRINCETON, ONTARIO.



### Threshing Machine.

To the Editor of FARMING:

C. T. Silverwells, Alba: Can you inform me where I can purchase a small threshing machine, sufficiently light to be run by a single horse?

ANS.—M. Moody & Sons, Terrebonne, Que., manufacture small threshing machines which can be run by a tread or sweep power, which would probably be what you require.

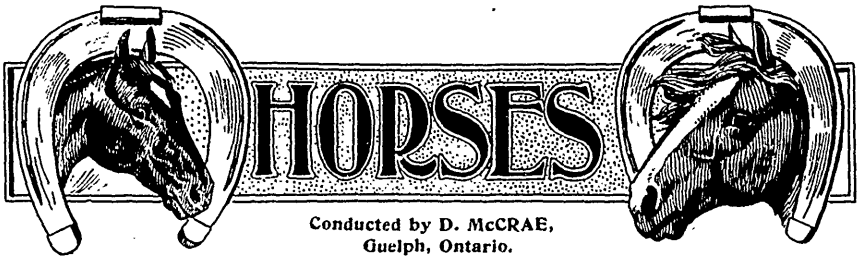
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### Loose Tires.

To the Editor of FARMING:

E.D., London: Can you suggest a plan whereby I can fix the loose tires of my wagon without having to send them to the blacksmith shop?

ANS.—The only method that you can employ is to soak the felloes of the wheels in hot oil. For this purpose a cast-iron basin has to be made, which stands on blocks, to raise it a little from the ground, so that a fire can be built right under it. These basins are manufactured in Cleveland, O., but we do not know if they can be obtained in Canada. As much of the felloes as possible is placed in the basin of hot oil, and left till it is well soaked with it. Keep turning the wheel afterwards till the whole of the felloes is soaked. The hotter the oil, the better and quicker the job.



**SORE SHOULDERS.**—An excellent and cheap remedy for sore shoulders in work horses and a quick healer for any part galled by harness-rubbing is half an ounce of indigo put into half a pint of alcohol. Sop this on the spot with a sponge or soft cloth three times a day, and it will cover and harden.

**ELECTRIC CARS** have certainly put on the market a large number of horses, and have tended to the present low prices all over the continent of America. But when figures are carefully gone into, it is found that the whole number displaced in the United States is less than three per cent. of the total number of horses in the country.

**REGISTRATION.**—The first volume of the General Stud Book containing the pedigrees of racehorses was issued by Messrs. Weatherby in 1793. There were many carefully-kept private records long before this. Indeed, some of the animals in this first volume go back to the stud located in 1643 at Tatbury, in Staffordshire, by King Charles I.

**GOOD PRICES FOR HACKNEYS.**—The prices of good Hackneys in England are still very high; but even moderate ones, of good breeding, bring good prices. Recently the Ferry Hill stud, the property of R. G. Heaton, Chatteris, were put up to auction. Fifty-seven heads were sold at an average of \$600 each. The highest price of the sale \$1900 was given for a daughter of Danegelt. One by Rufus was bought for South Africa for \$1850. The lowest price was \$135 for a young foal.

**FOALS.**—These should receive careful attention during the fall months, when the pastures are bare, and the flow of milk from the dam is lessened. They will soon learn to eat with the mare a few crushed oats, a feed of which will help to keep the mare in good milk. Be careful of them during the cold wet days of the late fall, and see that they are housed in a dry place when the cold, rain storms come. Weaning time is a most trying one for the young animals, and they need extra care at that period.

**LIGHT HORSES.**—The London *Live Stock Journal* has the following: "It is not easy at first to see how Canada can force us out of the street market with light cart horses and van horses, but the fact remains that at £25 (\$125) per head they are fast doing so." Freights have been very low, merely nominal. The lines to Liverpool have been racing with those to Southampton as to which will give lowest freights for this class of stock.

**GERMANY** has been buying a lot of horses the past summer, some from this side of the water, but many more near at home. Recently, at a horse fair at Liège, Belgium, the Germans bought of all classes; heavy horses at \$180 to \$220; medium, \$120 to \$160; good carriage horses, \$200 to \$240. In one month one thousand fillies have gone from Belgium to Germany.

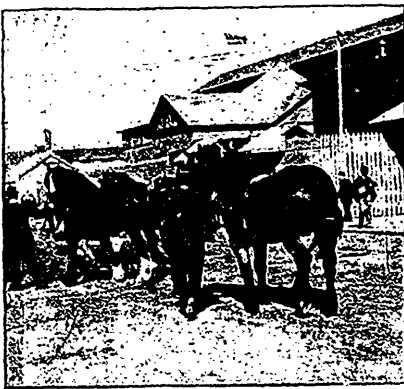
**FEEDING.**—Horses should be frequently fed, and when doing hard work the food should be rich and nourishing. The horse has a very small stomach for his size, and, on the other hand, his intestines are very large. Cabmen in large cities find that it pays to carry a nose bag and give the animal a small feed at every opportunity. In driving long journeys frequent stops and feeds will greatly help the horse to do easily an extra amount of work.

**LARGE STAKE.**—On Tuesday, October 8, at the meeting of the Kentucky Trotting Horse-Breeders' Association, the richest stake in the world will be trotted for. The stake is known as the Kentucky Futurity for three-year-olds, and will be worth about \$30,000. Of this \$20,000 will go to the winner. Last year this prize was won by Beuzetta. This year Larabie, Impetuous, and Oakland Baron are the favorites. Shadow and Boreal are two others that may also have a chance for the big purse.

**TROTTING ASSOCIATIONS** are having a hard time of it in the States this fall under the new rules which prevent gambling on the grounds. Few of them so far have been able to make

enough to pay their expenses. Some of them have closed up before the programme was finished, and sent the trotters and their owners home without giving them a chance to race for the offered prizes. Others manfully faced the loss and paid every dollar of the money offered. It is said that the Buffalo Driving Park will be finally closed, and that this course, which for thirty years has seen the biggest race meetings in the States, has seen its last horse race.

A SHIRE MARE, to be a good breeder, should be what is known as a low, long, wide, and roomy mare, with a strong constitution. This last is the most necessary of all qualifications for the farmer. A mare of this kind will generally be a better breeder, more certain, and will get through the business with less trouble, danger, and fuss, than a big, lofty one. The



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big brood mare should always be looked for on these lines, and will be a treasure when found.

SMALL MARES should not be bred to large stallions. Several writers of standing are giving evidence against this too common blunder. When the colt turns out badly, the fault is laid to the sire. The small capacity of the little mare is apt to starve and cramp the young animal before it ever sees the light. It is foaled a big, rawboned, ungainly colt, and the youngster continues so, the big frame being built at the expense of the muscles. The owners of draft stallions should not encourage such breeding.

CLYDESDALES.—The export demand for Clydesdale stallions from Scotland has been very small for the past year. Few are aware

how many were taken when the boom was at its height. The demand began about 1880, when 82 registered stallions were exported.

In 1881.....	201
In 1882.....	409
In 1883.....	431
In 1884.....	492
In 1885.....	514
In 1886.....	691
In 1887.....	920
In 1888.....	1149
In 1889.....	1040
In 1890.....	540

Since that time the numbers have been steadily declining, but the present prospects are that the coming year will see an advance in the number exported.

INDIAN TEA has long been used and appreciated, in Canada at least, by the gentler sex. It is very doubtful, however, if it has ever been much used by horsemen for their favorites. Here is what an Indian major says about it: "Some horses are very fond of warm tea with plenty of sugar and milk. This is an excellent restorative, not only after a race, but after a hard day's hunting. Many horses will drink it eagerly when first offered. It need not be very strong, but have plenty. A gallon will often be taken. The warmth and the stimulus afforded by the tea are most grateful to the horse."

AGRICULTURAL SHOWS were first held in Holland, and were introduced into England by King William of Orange. He made popular in England the idea of a periodical festival, which was made largely agricultural. The idea was followed up and elaborated by Sir William Temple in England, and Dean Swift in Ireland. At that time, they had three-day shows. The first day was for athletics. The young folk were to run, wrestle, and dance for prizes. The second day was for manufactures, and the third day for live stock.

SOUTHERN PONIES have come into the horse marts of the south in recent years. They are called creoles. They are bred on the prairies, along the gulf coast from Mobile to the western limit of Louisiana. Many planters, during the war, allowed their thoroughbreds to escape, and these breeding in the wild state with the natives, their offspring have gradually diminished in size, and now are seldom as high as 13 hands. The good blood in them shows in their symmetry. They are

active, strong, and mettlesome, and make excellent ponies for boys. Their gait is a long gallop.

SHIRES.—The Shire stallion should have a big, masculine head, without coarseness, with kindly and prominent eyes. Both head and eyes should show intelligence and good temper. The shoulders should be well thrown back, and the back short, with well-arched ribs. The middle should be deep, and the muscular development of the loin large. Long quarters are best, and the tail should be well set on. Big thighs, large, flat, clean hocks, good, flat bone, and plenty of long silky hair, are other necessary points. The stallion should have flat bone, not round, and should measure not less than eleven inches below the knee, and be short between the fetlock and knee. The pasterns should not be straight or upright, but moderately long and nicely sloping. The feet should be firm, deep, and wide at the heel. He should have good action, be a free mover at the walk, carrying his hocks well under him, and, if required to trot, have action like a cob.

WATERING HORSES.—A horse has been known to live twenty-five days without food, but where it had access to plenty of water; seventeen days without eating or drinking, and only five days when eating solid food without drinking. Horses have a small, sensitive stomach, and should be watered as frequently as the system demands it. That is, as often as the horse wants to drink. In hot summer days, plenty of water supplies perspiration and keeps down temperature. There is some danger in having a horse become very thirsty and then drinking too much. Frequent watering prevents this. It is well to have horses accustomed to being watered before being fed grain. The system is supplied, and there is no danger of washing the food out of the stomach, which frequently happens when horses are fed a full meal when thirsty, and then given all the water they will drink. This may cause colic and scouring. Care in watering will add greatly to the comfort and health of the horse.

BROOD MARES.—Now that horses are cheap is the time for the farmer to get a good team of young brood mares. Perhaps never before was there such a time as the present when purebred animals of nearly all the breeds could be got for prices that a few years ago would have been thought cheap for very

common grades. When good blood is so cheap, it is folly for any farmer to keep miserable scrubs to eat more than they are worth, putting into their miserable hides the products of the farm. Keep fewer animals, and better ones, and look out for good mares from which to breed good ones for the future. Get good ones of the breed you fancy, and they will be always a pleasure to yourself and your family, and in the near future it does not take a prophet to predict that they will bring a profit to your purse. And while looking out purebred ones, do not buy poor ones because they have a pedigree. Get good animals with good pedigrees. Know the points you want in your breed, and see that you get them, as well as a pedigree, in buying. Do not buy over-fed animals because they have won a prize at the fall show. If you get good form in fair condition, you will have much more pleasure in putting on the fat out of your own bin. The horse trade is looking up—get good mares and breed to the best, and you will come in for the profits which are not far away.

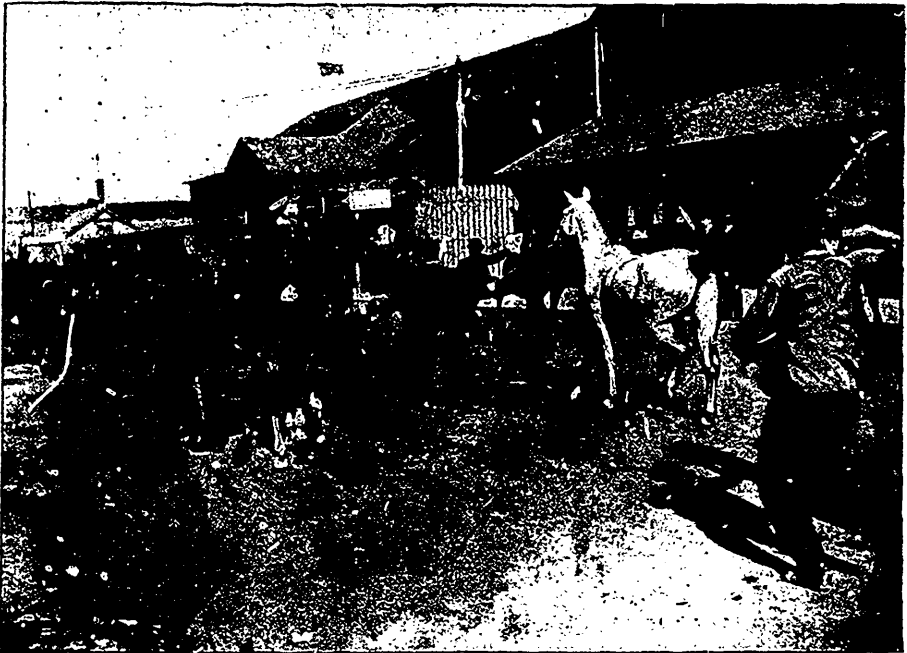
HORSE MARKET.—Though prices have been low in the chief horse markets of the world, there has been a marked improvement during the past year. Not that prices have gone up, for they are still very low, except for very desirable animals, but there is more life in the trade and a better tone. Poor scrubs are not in demand, but good animals have kept steadily advancing for some months past. Buffalo reports an over-supply of common and poor horses, and good ones scarce. Chicago has had a wonderfully good year. Since the close of the great railroad strike the market has been steady and firm, with now and then a week in which prices for really choice animals would go up with a bound. Good, sound horses, well broken, from five to seven years, have at all times sold well. There have all along been more buyers than sellers of this class. The way is clear, breed good animals, there is an advancing market on which to place them.

EXPORT TRADE.—It is an ill wind that blows nobody good. The past depression in the horse trade has been an ill wind for the breeders, but it has called the attention of European buyers to our horses, and the very low price at which they were being sold. The consequence is a steadily increasing export trade. From Canada there have gone, now and then, small shipments of well-selected draft animals that have made money for the



handlers. Glasgow has been the market to which these were sent. In addition to the heavy draft, these dealers are now buying a good class of "vanners." These are lighter, chunky animals, able to take an express van with a load at a good pace. The same thing has been going on in the States. In Chicago, where a year ago there were probably not more than five buyers for the export trade, there are now nearly fifty who buy regularly for foreign account. This trade has had a helpful tendency. It is not too much to say that the purchases of these buyers have put up the prices from \$15 to \$25 per head. This trade is a growing one, and so far has

drafts, 500 head. These would run from 1,400 to 1,550 lbs. Mexico has been buying stylish, matched teams of medium-sized drivers. Ireland takes drivers of good size. They are preferred with fair speed, big, rangy animals that can get over the ground fast. Cuba has bought a lot of very small, cheap drivers, and there is little trouble in getting a lot of these at a small price. These export buyers have been steadily increasing their purchases. For a better class of horses, gentlemen's drivers with knee action and style, coachers, chunks, and heavy draft animals, there is most demand. The outlook for keeping the market supplied with these is not bright. As it appears now,



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been a profitable one. Great Britain still leads, and takes the best and heaviest draft animals. France comes next, taking a lighter general purpose horse. The French buyers drop into the market and pick up two or three hundred light, cheap cab horses. They can put these animals on the French market cheaper than they can be raised there. The past shipments have done well, and given good satisfaction to the buyers. A recent shipment of the same class was put upon the London market; eighty head averaged \$150 each. Many of these were Canadian bred. German buyers have only recently entered the market. They sent over a trial lot of chunks and light

it will be safe for farmers to breed as many of these as they can, and the chances are that by the time they are five years old prices will again be on a paying basis, if, indeed, they will not be higher than they have been for many years.

RUNAWAY horses are always dangerous, whether the habit arises from a vicious nature, or from nervousness or fear. Scarcely a week passes but some human life is put in danger through horses taking fright, and running away. It is said that in Russia a horse that is in the habit of running away has a thin, strong cord with a slip noose tied around his

neck at the neck strap, and the end is fastened to the dashboard. When a horse bolts he always takes the bit in his teeth, and is difficult, therefore, to control. The moment the pressure from the pulling of the neck cord comes on the windpipe, the horse feels it, and he can be quickly pulled up.

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### A Choice Group of Clydesdales.

Our plate page engraving, this month, is one of a particularly fine group of Clydesdales, belonging to the well-known stud of Lords A. and L. Cecil, Orchardmains, Tonbridge, Kent, England. Lords Cecil have been breeders of Clydesdales for some years, and have won well-merited success in the show rings in England. At the head of the stud are three well-known sires. The principal one is the aged horse, Claymore (3522), a son of Macgregor (1437), and out of a dam by Bonnie Scotland (1076). Though now up in years, he is full of fire, and his action is like that of a Hackney. Claymore is assisted by the Garnett Cross horse, Crown of Royalty, which was the champion at Tunbridge Wells last year, and by the Prince of Albion horse, Prince Eddie (9637).

Our illustration shows the good old mare, Darling (1093), foaled in 1878, surrounded by her descendants. To the left of her is her daughter, Clara (11,250), foaled in 1887, by Prince Eddie (9522); and, standing behind her, her two-year-old colt by Crown of Royalty (9177). To the extreme left is Carlina, a three-year-old by Crown of Royalty, out of Clara. To the right of the old mare is another three-year-old daughter of Crown of Royalty, Chaplet of Pearls, whose dam, Cynthia (11,252), stands next her, a little more to the right. The remaining member of the group is the two-year-old, Crown Imperial, a full sister to Chaplet of Pearls.

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### Acquired Habits.

It is well known to horse breeders that acquired habits are often transmitted to offspring. This is seen in tricks and peculiarities, both good and bad. It is very specially seen in gait. The walk and gallop are the only original methods of travel. Many wild horses now have only these two gaits. The trot was early added, and then came the pace, and, by crossing pacer with pacer, this gait can be bred as certainly as the trot. This is, in a measure, also true of the rack, or single

foot, and of the running walk. This last has been developed during the last fifty years, and is much prized in a saddle horse. The running walk may be taught to any young, handy saddle colt.

In crossing selected sires and dams, the gaited saddle horse is now bred with natural gaits, and colts fairly beat their parents at facility of movement in these adjuncts of the modern saddle horse. These things plainly teach that acquired habits are transmitted to offspring, though some scientists deny that such is the case. Too little thought is given to this matter by many breeders. If a horse has bad wind or bad legs they may hesitate to breed from him, but few think of refusing to breed from a fine animal because he has a bad temper or an ugly habit. A good-tempered, tractable horse is a treasure and a pleasure to the owner, and these things can be bred in an animal as well as a graceful figure and good bone and muscle.

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### Fall Foals.

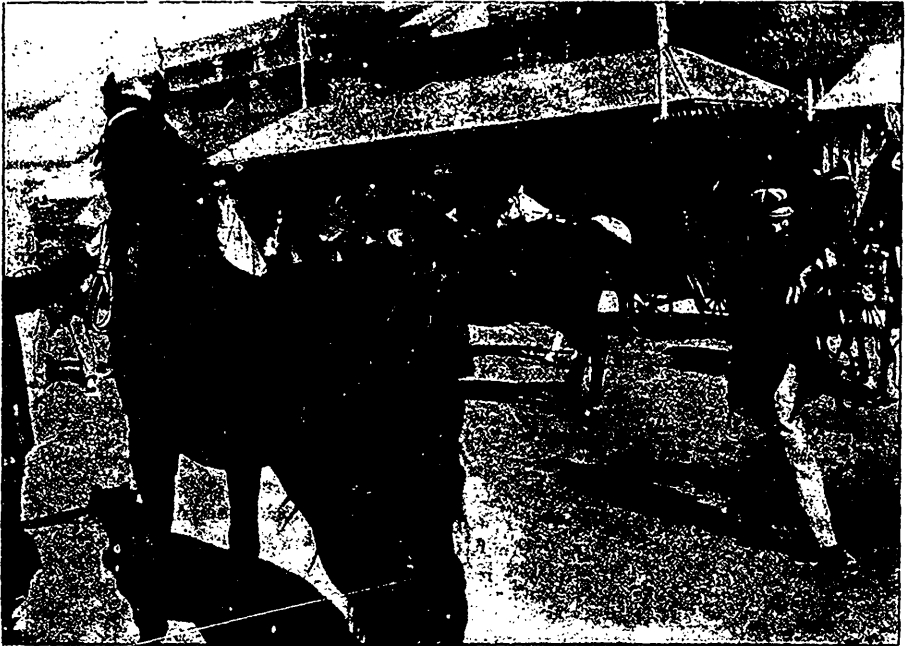
With many farmers the fall is the best time for breeding the mares. In raising horses, it is quite an item to manage the breeding and feeding to secure the best results. Nearly all farmers work their breeding mares, and, in order to lessen the cost of keep, the time of breeding should be determined by the work of the farm. Have the mare suckle her foal in the idle season. The fall foal comes at a time when the mare can best be spared from work. Then, during the winter season, when the foal is suckling, more of the mare's food can go to the production of milk than when the mare is at hard work. The colt is ready to be weaned in the spring before the mare is needed for the spring work, and it gets, then, a bite of good grass, and has the summer pasture before it. It requires more than ordinary care to have a mare suckle her colt during the summer, and also to take her share of the farm work. Foaling in the spring, the colt has to be shut up while the mare is at work, at least part of the time, for it is not safe at all classes of work to have the foal running with the dam. There is, at all times, a risk while with the team that the colt may become entangled in the harness or machinery, or be injured by using the milk while the mare is heated with her work. The mare bred in the fall will do more and better work, with less injury to herself and the foal, than if she is bred in the spring.

Another matter of no little importance is

that the popular stallions have in the spring more than they can easily do. When the stallion has fewer fall services, as at present, the colt has a better chance to come strong and good.

Ordinary farm work is a benefit, rather than a detriment, to the brood mare while carrying her foal. It is best to manage so as to get the best foal, as well as the most work, and this at the least cost. If a good colt cannot be raised, do not breed at all. There is an overstock of common horses, and they are difficult to sell at any price. There is a fair price for a first-class animal. If you are breeding, see that you use the best mare you can get, and

is more interested in hunters than in high-steppers, but the result of his practical observations in the west of Ireland is that the farmers have been getting double the money for the Hackney cross that they could for that of the Thoroughbred. Even if he were going to breed a hunter, he would rather have him out of a mare with a large dash of the blood of the Yorkshire Hackney than with any cross of the heavier breeds. What is true of the mares in the west of Ireland applies to many of the mares in Canada. Here we have, perhaps, not so much of the blood of the Thoroughbred as of the trotter in our lighter farm horses. This trotting blood is usually



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mate her suitably to the best sire you can find. Manage the breeding so as to give you the use of the mare when most needed, and at the same time so as not to impair the growth and value of her foal.

### Hackneys vs. Thoroughbreds.

There has been a good deal written in the British papers lately on the merits of the Hackney and Thoroughbred for crossing purposes. Lately, Mr. R. G. Carden, a breeder of hunters in Tipperary, Ireland, has been writing on the subject in favor of the Hackney for crossing with Irish mares. He

too small for breeding anything of the carriage class. Perhaps the best brood mare we have is one bred with a good dash of the better class of standard-bred trotter crossed with the Thoroughbred. This alloy forms a splendid basis for the Hackney cross, and it is seldom that mares bred in this way fail to produce a good-sized high-stepper, worth a lot of money when properly broken. There are many trotting mares in Canada that breed well to Hackney sires, but they are all the better of Thoroughbred blood with it. There are at present no grade horses in Canada worth as much money as those bred along these lines.



Conducted by "STOCKMAN."

**A LARGE CATTLE BOAT.**—There was launched at Glasgow lately what is said to be the largest cattle steamer afloat. She is called the *Georgic*, and has been built for the White Star Steamship Co. Her tonnage under deck is 9,603 tons gross, and she has accommodation for 900 head of cattle.

At the dispersion sale of the late Mr. Robert Thompson's celebrated Inglewood herd of Shorthorns very successful prices were realized. The highest price, 260 guineas, was paid by Mr. Ross for the bull Royal Spice, and the same buyer also secured Marie Millicent at 155 guineas. Several of the lots were bought for South America. The average for bulls was £45 1s. 8d.

**SALTING THE COWS** is sometimes neglected in the pressure of busy harvest days. It is on some farms a Sunday job, and not always every Sunday either. All animals need a regular supply of salt. Dairy cows especially cannot do well without access to salt at all times. Recently an American experiment station has been making trials along this line, and found, after repeated tests, that cows regularly salted gave 24 per cent. more milk than did the same cows when salt was removed from their reach.

**RAISING CALVES.**—The rearing of young calves is quite an industry in some parts of Britain, and it is found to be a profitable branch of the stock business. Some farmers supply dairymen with a bull, and contract for the calves at so much per head when dropped. During the calving season they may call once a week or oftener, as may be arranged. For the first few weeks the calves are fed on new milk largely, but are gradually accustomed to other foods, such as skim-milk, boiled linseed, oatmeal, hay tea, etc. At four or five months old they are weaned, and allowed only oil cake on pasture. The first winter they are fed on straw, turnips, and oil cake, and are fit for the butcher when from twenty-four to thirty months old.

**THE Red Polled cows** of the Suffolk breed have a good reputation for giving large quantities of milk and butter. Many of them give over 6,000 lbs. of milk year after year, and not a few go considerably over that quantity.

**DRESSED BEEF.**—The first shipment of dressed beef from the port of Montreal since five years ago was forwarded on the *Anglo-man*, of the Dominion line of steamships, on August 30th. This steamer is fitted up with a fine cold storage system. The cargo of dressed beef consisted of 600 tons of American beef, shipped by Swift & Co., Chicago.

**PURE WATER.**—In every gallon of milk there are at least seven pints of water, a fact sufficient to convince any one that good water, and plenty of it, is needed by the dairy cow. It is a fact that in many dairy sections there are low places, swamps, and frog ponds, where the cows are allowed to drink. This is especially the case in the dry days of harvest. No prudent dairyman will permit his cows to drink at such places. They should be fenced off, and an abundant supply of fresh, pure water supplied.

**THE BUTTER COW.**—The modern dairy cow in her best form is a highly artificial animal. The more artificial she is the better. The dairy cow has been trained and made over by the hand and brain of man for a perfectly natural purpose, for giving milk, yielding butter, and making money; and even if her artificial training does end sometimes in milk fever or other disease unknown to wild cattle, yet she will make an amount of butter in a week that would have killed her unpampered ancestors to attempt. The difference has been made by artificial treatment and by judicious selection. The good cow has been carefully encouraged to do better, and her produce kept to improve upon the past, and the end is not yet. More can be done, and is being done, by wise dairymen to make still greater records.

### Choosing a Bull.

The late Adam Ferguson, of Woodhill, East Flamboro, Wentworth county, was one of the pioneers of Shorthorn breeding in Canada. An excellent judge and noted breeder, he was an authority on all Shorthorn matters, and had a large acquaintance with the breeders of his day in Britain and America, and a great fund of anecdotes. The following he frequently told: About 1829, he was at a great Shorthorn sale in Northumberland, and there met a shrewd Scottish borderer, and with him made the round of the stock led out for inspection before the sale began. A very fine bull was brought out, which the borderer evidently admired, but, without expressing any opinion of his merits, he demanded to see the bull's dam. They went to the byre and the "dam" was carefully and critically examined. Returning, the borderer quietly said: "I think naething o' yon bull noo, wi' sic a caumb." ("Caumb" is the local name for a mould in which anything is cast.) Look up a most important part of the pedigree—the dam—when choosing a bull for your herd.

### Feeding Cattle in Demand.

A special feature of the cattle business this season is the purchase of "stockers" in large numbers by ranchmen in the Northwest Territories for feeding purposes. There is plenty of feed in Manitoba and the Northwest, and feeding stock is the only way to make money out of it.

The same condition of affairs is reported in the Western States. The Northwestern range men are having hard work to get all the young cattle they want. The cotton meal and corn feeders are also finding it a hard task to get what they want. There is a big shortage in cattle, taking the country over, says the *Drover's Journal*, even if more than 20,000 head do occasionally get in on one day. There is, too, quite a heavy movement of stock cattle and feeders back to the country. The number of cattle that will be counted twice at market this year will be larger than ever before. This fact adds to the large decrease in the total number of cattle to be finally marketed.

This should encourage feeders, wherever they can buy their cattle at reasonable prices, to use up any surplus feed in turning it into beef.

### Better Directed Efforts.

It is only the cow that will give more dollars' worth of milk than the value of her year's keep that is of any use to the dairyman. If the value of her yearly production of milk exactly equals the cost of her feed and attention, she is just worth what her carcass would bring, as she is of no further use in the dairy.

It is, therefore, evident that in order to obtain a profit the feed will have to be furnished at a low price, or the cow will have to turn to good account the feed she consumes, if the latter be furnished at market price.

Every dairyman, however, will see to it that the bulk of his feed is grown on the farm. Then there will be no cost attached to marketing it, for at low market prices feed will cost more than the average cow could be expected to return in value at the pail.

The breeder of each variety of purebred dairy cattle has aimed to supply a machine which will consume large quantities of food, and in return yield a large quantity of rich milk, leaving a profit, and by the amount of this profit the estimate of the value of the cow is aimed at.

The champions of each of the dairy breeds are ever ready to claim that their own sort are superior to others, and have a list of reasons ready to prove why.

Now, if purebred dairy cattle were to be made use of entirely, the problem would be easier solved than it is now. But the fact is, we find that common cattle are far in the majority, even those that have no pretensions as to breeding, while a great many are crosses, or rather grades, of some of the pure breeds, the proprietors seeking to improve their herds by the use of a purebred male, which is, in reality, the most practical way of proceeding, as the first cross will always give a noticeable improvement over the common-bred cow, for the simple reason that the purebred has been developed in this line. But there is such a difference in results that we find one man has obtained a wonderful success, while another is rather disappointed in the cross he has used. Although it is better than the ordinary cow, yet it has not made the improvement that he expected.

But it must be remembered that all purebred individuals of one breed are not alike, some individuals giving immense returns, and the whole family being noted for large milk yields, while the milk is rich in butter fat; while in other cases the family may be good

milkers, but the individual does not hold out through the year, or her milk is not as rich as that of her stable companions. For these reasons we cannot expect the same results from breeding to a bull from a cow that gives a medium yield that we should expect from the use of a bull that has a dam of wonderfully great performance, and particularly where the whole family is noted for giving large yields.

Now, in order to breed up quickly a herd of good milkers from ordinary cows, it would be necessary to use a bull that has the highest performers in his blood lines. Even then we could only expect half-way results. It would be idle to expect the daughters of such a bull from ordinary cows to equal the family of females from which the bull has sprung.

This all goes to show that the higher the performances of a bull's female ancestors, the higher performances will be expected from the cows which he may sire. But the best males are required in the purebred herds, and the breeder of the purebred herd, being so much better acquainted, through studying the breeding and performances of the cows of a herd and their ancestry, is more likely to get the best breeding bulls. Very true, and here the highest bred bull will do most good. At the same time, it proves that men engaged in breeding purebred herds of cattle cannot aim too high in their selections, not only in a few individuals, but in all, for it is the average or uniform excellence that will count in the long run. Any man may get together a few very superior individuals, but the man that will aim to get together a uniformly high-performing herd will prove of the greatest benefit to the breed that he is identified with, and will quickly become established as a reliable breeder wherever he may sell his surplus stock.

When a breed of cattle becomes popular, then that breed is in the greatest danger. The demand becomes greater than the supply of really good individuals. Therefore very ordinary specimens are apt to be sent out, the purchaser is disappointed, and the breed suffers accordingly. All pure breeds have been developed to supply certain conditions, and supply the requirements best suited for the purposes for which they were originally bred. If the conditions are changed, the character of the cattle is likely to change to suit the new surroundings. If care has been relaxed, the cattle soon revert to the level from which they first sprang, and much more quickly than they were improved. It may have taken many generations to bring

them to the best pitch of perfection, but very little time is required with starvation and bad handling to bring them back to the level from which they were first started.

Much judgment, as well as care, is required to keep improved stock of any variety up to a certain standard, the tendency to revert to the former type being very strong in all sorts. The rich, luxuriant pastures alongside the banks of the Tees formed a foundation stock from which the modern Shorthorn was developed. The coarse, succulent grasses of Schleswig-Holstein and dense fogs demand a large capacity for feed and a strong constitution to withstand the damp climate. A smaller cow is demanded where it is customary to tether them, as in Jersey and other Channel Island sorts. We may supply the Holsteins with bulky feed through the modern silo, and still expect her to keep up a heavy flow of milk, but if we expect the Channel Islander to keep up her reputation for richness we shall have to supply a food ration equalling the dainty pastures to which she has been accustomed.

In the one case, bulk and quantity must be supplied to keep up the character of the large quantities of coarse feed developed, while in the other we must bear in mind that a smaller ration, but more palatable in its make-up, is required. When the heavy milking Shorthorn of the last century was taken to Aberdeenshire, more constitution had to be developed in order to face the vigorous east winds of that locality. The leg was shortened, and the whole contour and character was changed to suit the surroundings and requirements. Skillful hands entered the work, and see the result.

So may Canadian breeders change the character of any of our dairy breeds until they may be still better suited to our needs.

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### Better Methods in Feeding.

"Experience is the best teacher" is an old adage, and a true one, for there is nothing that impresses upon one the necessity for better methods in the future more than experiencing where we have fallen short in the past.

It is easy to see where our neighbors have been at fault, and it is human nature that some of us may feel a slight degree of satisfaction in another's misfortunes, especially wherever these are the result of a lack of judgment at a point where we may disagree.

The past dry season will be a bitter experience to many who made no provision for supplementing dried-up pastures with some soiling crop, and doubtless another year will find many, who have lacked in providing during this season, making ample provision for a liberal supply of green feed in the different varieties of soiling crops when another year comes around. However, it is this winter's food supply which demands the most attention at this present juncture, for not only are hay and straw scarce articles, but cattle are likely to come into winter quarters in such lean condition that they will require more feed than if they were now in the form in which we usually find them at the latter end of the pasture year. Hay and straw being scarce over a large area of the country, corn fodder, among those who are fortunate enough to have any quantity of it, will have to be made the most of. To those who have silos the matter is easy, but all have not yet built silos, while others are but partially provided by this plan with sufficient room for the crop of corn.

To place large quantities of corn fodder in the bays of a barn makes it pretty certain that a lot of valuable fodder will be completely spoiled, for it does not matter how dry apparently the stalks are, the butts always contain much moisture, which is the cause of their failure to keep properly when large quantities are packed together. A much better plan we have found is to place long poles perpendicularly in the ground, then put a platform about six feet in diameter around the standing pole. Around this pole may be built a stack fifteen feet or more high, the damp butts being all placed at the outside, and, if the centre is kept as solid and full as possible, the slanting bundles of stalks insure drainage for any rain that falls. The pole keeps the stack steady, and it is much more easy to build the stalks around it. As each stack will hold two or three wagon loads, it is easy to stow away a large quantity of fodder conveniently to the buildings. If corn fodder is put in dry it will keep very well, and both that which has been grown purposely for fodder, and that which has had the ears taken from it, will be found very valuable through the coming winter.

Dry corn fodder requires to be run through the cutting-box to be economically fed. Fed with cut straw and a small ration of grain, cattle will do well on it; but it must be cut every few days, even through dry, cold weather, as, if a quantity is cut at one time, it quickly heats and spoils. Cattle like it

best when it first begins to heat. A much more palatable ration can be put up by mixing the cut fodder with the ground grain, twelve hours before feeding. The whole mass should be well dampened, which softens the fibrous nature of the corn fodder. Cattle will not eat enough of any kind of dry, harsh feed: Dry timothy hay makes but a second-rate cattle food, but if this is cut and dampened twelve hours before using, it not only saves waste, but the cattle will thrive while feeding upon it, while, if fed dry, it makes but a sorry food ration.

In many cases turnips are much objected to, as they flavor the milk and butter, and, when given in large quantities and fed by themselves, the taste is very objectionable; but if they are pulped and mixed with the hay and straw, and dampened and left for twelve hours before feeding, the taste can hardly be detected, even if they are fed in very large quantities. A good large feed-room is a great convenience for this work, and every well-laid-out cattle barn ought to be provided with space for this work. The feed ration is easily mixed in the proper proportions, so many baskets of cut fodder to the bushel of ground grain and bran, then a given quantity of roots. Place in an even layer all over the feed-room, and then mix well over. When water and salt are added, the ration will be just as much more palatable in proportion as a nicely-prepared meal is in comparison with one slovenly and half-cooked.

It is skilful feeding that saves expense. Large quantities of the best feed may be given and make but a poor showing. The more palatable the ration can be gotten up, the less waste there is, and, consequently, it is thus fed to the best advantage.

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### Cattle Bring in the Gold.

Cattle and cattle products contribute more to our exports than all other productions of the farm combined, whether they be from the stall or sty, the fold or field.

Cattle are the greatest source of our agricultural wealth, and add more to our imports of foreign gold than the combined exports of horses, sheep, swine, poultry, grain, fruit, hay, together with all other farm products.

Think of this, you delegates from breeders' associations: There is no occasion for mistaken modesty in this matter. Our country owes the cattle industry a deep debt. Then

let the country show its gratitude by assisting cattle men.

It is time that all of us wake up to the fact that Canada is a cattle country; that, if we do not live entirely upon cattle, cattle are our greatest agricultural staple, not one that is growing less, but one which is leaving all others behind on the road; one that has had no favors in the past, but, on the contrary, has had many ills to contend with, many difficulties to surmount. Heretofore, cattle shippers have often had to pay two prices for space on ocean steamships, together with railway freights nearly double as compared with through rates from Chicago. Our butter in the past has had the most infamous treatment at the hands of railway and steamship companies, while the fact that our cheese has fared better is because it is a less perishable article. In the face of these difficulties, restrictions in Europe, restrictions on the ocean, and, worse than all, restrictions on this side, cattle men are built of such stuff that they have placed their products far in advance of all. We do not contend that cattle men are making money easily, or that there are only a small proportion of our farmers engaged in helping to swell the receipts of cattle products. On the contrary, all are, probably, contributing directly or indirectly to the big sum represented in our exports under this heading.

Then, if all of our farmers are interested, let them be united in the future, and they may be assured that they will obtain all their requirements. If there is a unity of purpose, cattle men will have their demands acceded to. They can present such a front that the powers that be, whether it be government, railway, or steamship company, will listen to any proposals they may choose to make, and will carry out any required reforms.

### Free Corn.

It is being constantly dinned into our ears by speakers on agricultural subjects that the farmers of our older provinces will have to abandon grain growing for export purposes because upon the virgin soil and low-priced lands of the far Northwest cereals can be grown much more cheaply. Our press reiterates this contention, and agrees that grain growing will no longer pay, except for home consumption. Both are equally agreed that our future exports must be along the line of animal products, and there are few that will have the hardihood to dispute the assertion.

Then, we would ask, if there is but one opinion as to what farmers may profitably produce in the future, why are we not equally agreed as to the best means of fostering the industries on which the future welfare of these eastern provinces depends? If our beef cattle are to compete with those of other countries, we shall require cheap feed. If our butter and cheese are to be consigned to the same market as those of other countries, the cows that produce these articles ought to have their food furnished at as low a price as the cows of other countries. Our pork finds a market on the same basis as that from countries in which cheaper food is furnished than ours. Then how much more easily could we keep up the struggle if the cost of the food ration were reduced to the cheapest basis!

Our horses and our sheep all require feed, and, if these two varieties of farm stock are to flourish, a cheaper ration will help them along materially.

Our poultry will stand a little assistance. Look at our exports of poultry and poultry products and see for yourselves. But even eggs cannot be produced upon air. Feed is the burning question. It is the rock upon which the whole structure of each of our animal industries is built.

Then, let us look at the question from a financial standpoint, and see which of our farm products are bringing the gold into the country. The last figures we have to hand are those of the year ending June 30th, 1894, during which fiscal year Canada exported of animal products the neat sum of \$33,048,467, divided as follows:

Exports.	Value.
Horses .....	\$1,176,806
Cattle .....	6,499,777
Cheese .....	16,267,309
Butter .....	1,114,712
Beef and other animal products .....	3,223,461
Swine and swine products .....	3,109,933
Sheep .....	829,651
Poultry and poultry products .....	804,816

Now, it is what a farmer sells that adds to his bank account. The fruit and vegetables, beef and poultry, and other products that he grows and consumes he may require and enjoy, but they don't add to the stock of dollars and cents. It is the same with the country. It is the goods exported that bring in the gold, and it is the gold the country needs, to add to its wealth.

Of grain and other agricultural products, not animal, during the same fiscal year, we



exported of Canadian growth the value of \$17,675,449, divided as follows:

Exports.	Value.
Wheat.....	\$6,133,452
Wheat flour.....	1,699,467
Peas and split peas.....	2,391,521
Oats and oatmeal.....	1,384,854
Barley.....	264,200
Beans.....	265,477
Buckwheat.....	277,033
Indian corn, whole and canned.....	710
Rye, and other grain.....	34,938
Hay.....	2,601,188
Grass and other seeds.....	537,217
Fruits, all kinds.....	1,057,890
Other exports, not grain.....	1,017,502

These figures give conclusive evidence as to which of our exports bring the money into the country, and also show that the restriction of American corn does not prevent us from having a surplus of other coarse grains to export, and that if we did not require so great a quantity of these coarse grains at home we would still have found a market abroad.

Again, let us turn to the imports, and we will find that we only imported \$1,414,423 worth of agricultural products for home consumption, including all descriptions of grain, flour, meal, rice, etc., among which \$846,385 was for corn and cornmeal. And, yet again, to prove that we are fond of a little trading, we find that we exported \$9,079,697 of agricultural products that we did not produce ourselves.

Now, we exported peas, oats, and barley to the value of \$4,040,575, to which we should add the magnificent sum of \$710 for Canadian corn, including what was canned, and yet we paid a duty of \$148,399 on \$846,385 worth of American corn to enable us to sell a portion of the above quantity of coarse grain, or else to starve ourselves and our cattle to just this amount.

Can we be surprised that Canadian cattle feeders, who are working under these difficulties, are sending half-fed cattle to the English markets? Are not our cattle feeders entitled to as much notice as Canadian manufacturers who are allowed to import material free from duty?

During the last year there has been almost a famine in all kinds of food supplies, and, as usual, our cattle have suffered, and, as long as we find the entry of grain foods restricted, so long will our cattle-feeding suffer, while our dairy and swine industries will be carried on under difficulties which will tend to lessen the quantity and lower the quality.

The chief reason why cattle at Chicago are higher in price than in Canada is that Chicago cattle are just so much thicker and better. English butchers have no sentiment about them; they buy the best beast that will kill out the highest profit, and they have found to their cost where Canadian cattle are lacking.

Before the present restrictions against our cattle landing in England became law many argued that Canadians were foolish to sell lean cattle; they should finish them, and save the cost of shipping the cattle and the corn to feed them; but when Scotch cattle feeders could obtain American corn at Dundee or Aberdeen at a less price than Canadian cattle feeders this is easily accounted for.

The adage that water will find its level is exemplified in this question of feed, which the figures above show plainly. Then let our stock men bestir themselves. This is no question of political economy. It is a question in which the best class of agriculturists are badly handicapped by an unjust custom regulation. Our cattle feeders, dairymen, and pork producers, together with the whole list of those who are producing in the line of our animal exports, are alike interested.

Another session will soon be upon us; let each one who has any influence point to these figures.

The only argument that has been advanced is this: our oats and peas and barley will be reduced in price; but look across the lines. Buffalo oats range alongside those of Toronto in price, their standard weight being thirty-two pounds per bushel, while ours is thirty-four pounds. The world wants our peas, and they will always fetch a high price, for few countries can grow them of as good quality.

Our neighbors have the largest corn crop on record, yet Canadian stockmen have short food supplies at home, and a heavy tribute will have to be paid for every bushel of corn they require.

### West Highland Cattle.

The value of the West Highland cattle consists in their being hardy and easily fed. They will live and thrive on the coarsest pastures, and will frequently gain from a fourth to a third of their original weight in six months' good feeding. The proportion of offal is not large, and they lay on flesh and fat equally. When fat, the beef is fine in the grain, and well marbled.



Conducted by "JASON."

### Selecting a Purebred Flock.

In the choice of which breed of sheep he should select, the beginner must be governed by circumstances, although on the rich pasture lands of Canada any of the heavy breeds may be handled with success.

Generally speaking, the new beginner has already fixed in his mind which is his favorite variety, and success is more likely to follow when a decided preference has been decided upon, for the breeder must be an enthusiast in his work, or he is not likely to succeed.

### The Choice of a Ram.

If judgment has been required in selecting the ewes, still more care should be exercised in purchasing a suitable ram. Cattle men tell us that the bull is half of the herd. The same rule may be applied to the flock. Hence it will be a great mistake to buy a ram that will not bring improvement into the flock. For this is the true method of progress. Upon the quality of the sire depends the improvement of the flock, and here comes the profit, in producing offspring of a higher value than the ewes from which they spring.

### Ewes for the Shambles.

All ewes culled out for sale should be made ready for the market, and sold for what they will bring. Old ewes do not give a return for winter finishing as young lambs do. They will not bring a price sufficient to pay for a costly ration of grain food. They should, therefore, be fattened, so far as possible, in the pastures, and sold before the winter closes in, or, if a sale cannot be made of them then, they should not be allowed to go beyond the Christmas season. Such stocks fatten most cheaply on good grass, or on rape. Some grain added may, in many instances, be turned to good account. Of course, there are differ-

ent kinds of cull ewes. Some may be culled because of age, and some because of an unshapely form, or injury to the udder. The latter may be young, and will, of course, feed much better than the former. But, as a rule, the aim should be to feed lambs in winter, rather than matured sheep.

### Feeding Purebred Ram Lambs.

Purebred ram lambs should be well fed. If they are not, they will be undersized, and this means that they cannot be sold during the present season. It is well that they should be sold, for as shearlings they will not bring very much more. When weaned, the lambs held for sale should, where practicable, be separated from the others, and put upon a liberal allowance. The amount of the grain food required will be largely dependent on the character of the other food. If the lambs can be put upon a nice clover pasture, or upon rape, or some such green food, they will not want much meal. And it is better that they should have succulent food rather than much grain. Such food keeps them in better breeding condition. And they are also kept in better health. But where the pastures are dry, they should get ample supplies of grain, such as oats and bran, for instance, with some oil cake added.

### Cross-Bred Lambs.

I do not favor cross-breeding in an indiscriminate way, but sometimes it is allowable. It may be resorted to for a specific purpose. More commonly cross-breeding is practised by farmers in a sort of tentative way. They introduce a cross after a speculative fashion. They want to get something different, and in the hope of doing so introduce a cross. Now, a cross should not be introduced, even with grades, without having a fair idea as to what the outcome is likely to be. Take, for instance, a flock of grade sheep. A certain straight line of grading has been introduced, and they are becoming too diminutive in size. Now,

we can pretty certainly reason that the size will be increased if a ram from some large breed is crossed upon them. And if the flock, for some reason, should become too much up-standing, then we should use upon them a ram of some of the compact breeds. If the wool is becoming too short or too fine, the remedy is to cross with a ram of a coarse breed. But when the cross has been made, go on again in the old line, and remember that these remarks apply mainly to animals that have been graded for some generations in a certain line. In this way excellent results may sometimes be obtained. But to go on with a sort of zigzag crossing would not accomplish anything definite. It can only be fitly compared to a man walking along the road, turning round and passing the place of starting, and then re-passing it in some other direction. Life is too short for such manoeuvring.

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### The American Merino.

The American merino is having a rather hard time of it at present, as the prices paid for fine wool are so low. The competition from Australia and New Zealand, and also from Argentina, is very strong. Wool raised on the wholesale plan is more cheaply raised than when raised on the retail plan. But those who have merinos should hesitate before they part with them, if they have good animals. Some fine wool is wanted, and the merino grows a heavy fleece. If the merino is crossed with some of the down breeds, the mutton form is much improved. No class of sheep is more hardy than the merino. They seem to accommodate themselves to any kind of climate. They will live upon the coarsest fare, and owing to the great amount of yolk in the wool they can stand almost any amount of rainfall without serious injury. The grade merino has been found best adapted to western ranges.

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### Sheep as Fertilizers of the Soil.

Sheep may be made to render great service in restoring fertility to worn soils, and also in preventing lands from being depleted of their fertility. In fact, the assumption is safe that no quadruped kept upon the farm will equal them for this use. It has been noticed that where sheep are kept, better crops can be reared upon the arable portion of the lands than where they are not kept, and this increase in fertility is a factor that should not be over-

looked when we are estimating the profits which accompany sheep husbandry.

Some of the reasons which give sheep the pre-eminence claimed for them in this paper are not far to seek. In the first place, they are out on pasture during a large portion of the year. While thus pasturing, they are distributing droppings over the surface of the land. The droppings are more evenly distributed than those of cattle and horses. They fall amid the herbage that is being pastured, and lie close upon the surface; hence, when rain falls, the fertility in the manure is washed into the earth, and comes at once into contact with the roots of the growing plants, and much of the droppings is actually incorporated with the surface soil by the treading of the sheep.

In the second place, the distribution thus spoken of is a great saving in labor. When manure is made on what is termed the soiling system of feeding in its strictest sense, that is to say, by the system of feeding in sheds or stables, the manure has to be carted and distributed. This means labor, and labor means outlay or its equivalent. The distribution of fertility by sheep upon the pastures is a factor that must be considered when we are estimating their relative economical value. And owing to their natural instincts they leave a large share of their droppings where it is most wanted, that is to say, upon the high land. They instinctively take to the higher ground when seeking a resting place, hence the result just mentioned.

In the third place, they enrich ground by pasturing off crops sown for the purposes of pasture. Suppose sheep eat off a crop of rape; they leave the cultivable portion of the ground, that is, the upper section, richer than before it grew the rape. The reason is clear. The roots of the rape go down into the subsoil and bring up plant food, much of which is transformed into leaves and stems. These furnish the sheep with food, and, when digested, the chief portion of the plant food which they contain falls back upon the land in the droppings or in the urine. Some of the plant food down in the subsoil, where the roots of some useful plants could not get at it, are thus brought up to the surface, and deposited there in a very available form. Now, suppose a crop of rye had preceded the rape, and that it had also been pastured; the same benefit in kind would have followed the pasturing of the rye. And when clover can be pastured, the benefit is still greater, for the

clover brings additional fertility from the air. Thus it is that benefit in fertility follows the pasturing of crops that are grown for sheep. And the benefit is always greater when these crops are deep rather than shallow rooted.

And, in the fourth place, sheep bring fertility to soils by the richness of the manure obtained from them through winter feeding. Sheep manure is very rich. It is rich in all the essential elements of plant growth, but it is especially rich in potash. And it is made in a form in which it may be easily saved without waste. The solids and the liquids are intermixed; hence, there is practically no loss of the liquids if the sheds and yards are kept well bedded. The tramping of the manure also tends to prevent the escape of ammonia. But one evil has to be guarded against, viz., loss from fire-fang. The proportion of the liquids to the solids in sheep manure is not large; hence it is much prone to become too dry. To prevent this, it should be drawn at intervals not too far apart, and distributed over the fields.

When we take into account the money value of sheep as compared with other industries; when we take into account the relatively small amount of labor which they take, and when we add to this their great value in bringing fertility to the soil, we cannot but conclude that when the conditions are favorable much attention should be given to sheep husbandry.

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### Seasonable Flock Notes.

During the heat of the day, when the sheep have gathered in the shade, they may be noticed at times twitching their heads as if in feverish haste to elude a winged enemy. Close observation will reveal the presence of a fly, somewhat larger than a house fly, and of a bluish-gray cast. The fly usually continues its attacks until it drives the sheep from its position, or succeeds in its object of depositing its young in the nostril of the sheep. As soon as the young larva becomes secure in its position, it begins to travel upwards. It irritates the sensitive membrane that lines the nostril in doing so, and this soon produces a catarrhal discharge. It is considered that the larva may remain in the nostril three or four months, all the time active in causing the trouble commonly called "snuffles." After a time the larva drops out of the nostril, passes its chrysalis state in the ground, and finally emerges as a fly, which, if a female, begins

anew its work of annoyance. Though this fly is not always the cause of this running at the nose observable in some flocks, yet it is quite a common cause. In most districts, however, changes in the weather, or cold and damp atmospheric conditions, are the chief causes. It is a disagreeable trouble, and it is more or less of a drain on the vitality of the sheep. The action that is best to take should be carried out when the fly is noticed to be most active. Smearing the noses of the sheep with pine tar is the best preventive that I am familiar with. This keeps the fly away, which adds much to the comfort of the sheep during a season that is very distressing to them, and it destroys the young larva, and soothes the surfaces that are irritated.

The lambs having been weaned, and the ewes having had nothing but the run of a stubble field or bare pasture to check the milk flow, it is now time to begin to feed them better, in preparation for the breeding season. Rape is an excellent food to have available for this purpose, and it will not be a mistake to feed a small ration of oats. There is no doubt but that it is a real economy to feed the ewes well at this time, that they may be gaining in flesh until they are in their winter quarters.

*Uniformity in the condition of the ewes* means a uniform arrival of lambs, and a well-nourished condition of the breeding flock means an early lambing season, and the birth of well-nourished lambs.

In obtaining rams for use in their flocks at this time, some flockmasters show an unreasonable prejudice against using aged rams. Very often, by exchange or purchase, a three-year-old or four-year-old ram, that has been used as much as blood relationship will permit, has to be disposed of at a sacrifice. A ram that is vigorous and normal is as good when three or four years old as he has been or will be at any time of his life. Under usual conditions, there are, at least, two or three more years of usefulness for him, and that is about as long as any ram may be used in the same flock, without the breeder being forced to use him on his own get. Evidently a great deal depends on how the ram has been managed and fed during the previous years that he has been in service. In our flock we have, at this time, two rams that were purchased as shearlings in 1891, and, though they were five years old last

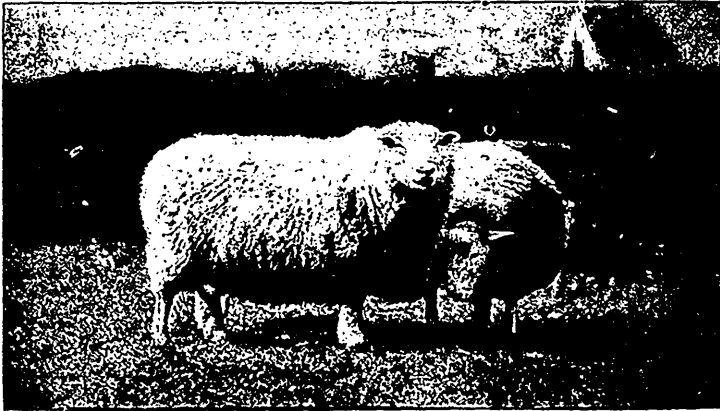
spring, they are hearty and active, and will undoubtedly be serviceable for a few years yet. There is one advantage in buying a ram that has been used for a couple of years in another flock, and that is apparent in the fact that his get are available for inspection. This is an advantage that has a decided value when one is anxious to improve his flock with as great rapidity and certainty, as possible.

JOHN A. CRAIG.

Wisconsin Experiment Station.

### Stud Sheep Sales in New South Wales.

From the *Woolly Festival*, which is a record of the Sydney stud sheep sales held during the month of July, and which is issued from the



TWO ROMNEY MARSH RAMS.

office of the *Stock and Station Journal*, Sydney, New South Wales, we learn that the sales were not a success, prices being generally very low, although a few sheep sold well. The results are attributed to the great drought, as well as to the fact that the market was flooded with sheep of a poor quality.

Mr. F. G. Weaver made good prices for 233 merino rams, which averaged £10 10s. 11d. One merino ram brought 150 guineas, and another 105 guineas. These prices, however, were exceptional. The total amount realized for 9,781 sheep was £18,075 5s. 10d., which brings the total average within a fraction of 37s. per head. The rise in the price of wool in the European markets, which was announced during the progress of the sales, prevented the sales from dragging more than they did.

### Grub in the Head.

Nearly all the diseases which affect sheep in this country are of the parasitic order. Because of this treatment is difficult, and cure is not easily effected. And of the class of diseases just named, what is popularly spoken of as grub in the head would seem to be the most common in this country. This disease, technically designated *astrus ovis*, is caused by the sheep gadfly. When on the wing, this fly is so small and quick in its actions that it is not easily caught. It is somewhat larger than a common house fly. In the early stages of its existence it is sluggish in its movements, but when matured is very active. Sheep seem very much afraid of it. To escape from its presence they will run back and forth, shaking the head and keeping it near the ground. At

other times they will crowd together with the head concealed underneath the body of another sheep. The fly works only during the heat of the day; hence the importance of allowing sheep to have access to darkened sheds at such a time. The fly deposits not an egg, but a small grub, within the nostril of the sheep. The grub works its way up into the recesses of the nose, penetrating its remotest chambers. But it is a mistake to suppose that it enters the brain. The indications of an affected brain are sympathetic in their nature; that is, they are caused by the inflammations which affect the bony partition between the nasal passage and the brain.

#### SOME OF THE GRUB SYMPTOMS.

The following are among the symptoms which indicate the presence of grubs in the head: A discharge from the nostrils commen-

ces, which at first is clear and serous, but later it becomes thick and mucous. More commonly sneezing and snorting occur, accompanied by the expulsion of mucus. Sometimes the grubs are thus expelled. As the trouble advances, the sheep begin to shake the head frequently and to turn it backward; and also to rub the nose against the ground or some other object. Later, they go with lowered head, and lift the feet high in walking. Sometimes they quickly raise the head and bend it backward convulsively. Betimes they stagger as though dizzy, but they do not turn around in a circle as when affected with the disease called gid. Still later they grate their teeth, their eyes roll in the sockets, the appetite leaves them and they die, in some instances within six to eight days of the appearance of the first pronounced symptoms. But sometimes they recover, owing to the expulsion of the grubs through sneezing. From some of the passages into which the grubs crawl, they can retreat, and when they do they are likely to be expelled from the nostril; but from other passages they cannot retreat, hence they die in these, and in so doing increase the sorrows of the unfortunate sheep which they affect.

For this malady, treatment is usually of but little account. Ever and anon remedies will appear in the agricultural papers, and strong statements accompany the same as to their efficacy. I only wish I could say that these so-called remedies possessed much merit. Usually they do not. But, remember, I do not say that they may not, in some few instances, be made to render assistance. The reason will be apparent. You will notice what was said above, viz., that from some of the passages into which the grubs work their way they cannot retreat. They die in them. Now, no treatment can dislodge these grubs. From other passages they can and do retreat; and when they exist only in these it is possible to effect a cure. Irritating fumigations and sneezing powders have been recommended, but these cannot reach or affect the grubs in some of the remoter sinuses. And the same is true of substances injected, such as a mixture of turpentine and linseed or olive oil mixed in equal proportions. Some have recommended inserting a fine probe, as of wire, up the nostril and into the sinuses where the grubs take refuge. But this is a sort of hazardous operation. The wire, by entering the wrong sinus, may give rise to irritation where it did not heretofore exist.

Preventive measures are, therefore, very much more important than those of a remedial character. And here, too, we are somewhat at sea, for we do not always know when to look for the mischievous gadfly which lays the egg. In the South it would seem to appear at various seasons of the year, for there the larvæ of various stages of growth have been found in the heads of the sheep. Some of these have been full-grown, some only newly deposited, and others have been of intermediate stages of growth. These could not by any possibility have been deposited at the same time, for the grubs grow very slowly. It is claimed that they take about ten months to attain full development; hence the grubs deposited in summer do not usually cause the sheep which carry them to die until the following spring. It is commonly stated that in June, July, or August the flies are most prone to attack the sheep; but how are we to know certainly? for it is evident that these flies will operate at different times under different climatic conditions. If our entomologists would tell us exactly when to look for the gadfly, they would give us a valuable lot of information, and we would then be able to fight the enemy. Until they do, we can only judge of the presence of the fly by the behavior of the sheep, as already described. But here, again, we may be deceived, for sheep try thus to escape from the attacks of some other kinds of flies.

When the sheep are observed trying to escape from some insect enemy, as has been described, the effort should at once be made to protect them. The nose should be smeared with some kind of a mixture offensive to the fly. Various mixtures have been recommended, but none probably is cheaper or more effective than a mixture of equal parts of tar and fish-oil, or whale-oil. It may be most easily applied with a brush, and should be renewed every few days for, say, a couple of months. But the duration of the smearing period cannot be fully known until we know more precisely the time of the visitation of the fly in the Northwest. There is some virtue in using a salting trough V-shaped, with a board standing on edge from end to end in the centre of the trough. This board is smeared ever and anon with tar. When the sheep take salt from the triangle, the nose is smeared more or less with the tar. But this mode of prevention is not thorough enough. Care should be taken to periodically clean sheep yards and sprinkle them with lime. To

follow up the smearing process as a means of prevention may seem like taking a good deal of trouble; but, depend upon it, we do not accomplish anything good in life without more or less of trouble and hard labor.—*Prof. Thos. Shaw, in N. W. Agriculturist.*



Conducted by Prof. J. A. Craig,  
Madison, Wis.

### Potatoes for Sheep.

Editor Sheep Department, FARMING:

"D. W.," Cornwall: What value should be attached to potatoes as food for sheep? How can they be fed to them with the greatest profit?

ANS.—As our correspondent does not state what potatoes are worth in his locality, it is out of the question whether to advise him to sell them or to feed them. We have fed them at our station to fattening lambs, and, though no data was obtained as to their comparative feeding value, yet it was apparent that the lambs would not do as well on them as they would on good turnips. And, as a rule, there is a wide divergence in the selling price of these two products. Sheep will eat potatoes, but they do not relish them as they do turnips, mangels, or silage. Any of these are preferable to potatoes as the succulent part of a ration, and for sheep-feeding it would be safe to say that there would be more profit in selling the potatoes and buying and feeding turnips.

### Breeding Ewe Lambs.

Editor Sheep Department, FARMING:

D. McINTOSH, London: Why will it not answer to breed ewe lambs? Considering the fact that they come in heat, and it is a long time to wait until the second year, why not breed them before they are almost two years old?

ANS.—It is largely a matter concerning growth. In England, where the food is available for making the greatest growth, it is the practice of some breeders to follow this plan. With us, however, it would be found that the growth of the lambs would be stunted, and they would never have the constitutional strength and size of those bred when shearlings. A year is gained in breeding the lambs, but I am of the opinion that

more than a corresponding time is lost from their usefulness in later life. A ewe bred as a shearling will be likely to retain her utility more than a year longer if not bred as a lamb, and she will be likely to drop larger lambs and rear them better. A sheep thwarted in its growth in early life by feeding or breeding very rarely loses the scrimped appearance that invariably affords the best evidence of lost vigor.

### Age of the Breeding Flock.

Editor Sheep Department, FARMING:

"B.," Chesterfield: At what age should grade ewes be sold, or beyond what age is it unprofitable to keep them?

ANS.—There is a great difference in the length of time that ewes will retain their usefulness. It is the same with them as with persons. Some retain their vigor much longer than others, owing to their constitution. A few weeks ago we had to dispose of the old ewes of our flock that had been purchased as yearlings and two-year-olds in the fall of 1890. These ewes were exceptionally good milkers and breeders in comparison with other grades, and we kept them just as long as we could, so as to have better and younger ones to take their places. As a rule, it is advisable to keep the flock young. That is, they should be as near three and four years old as it is possible to have them. It is at these ages—three, four, and five—that they will be the most vigorous and milk best, and have their highest value for selling if it is desirable to cull them out. Shearlings require much more attention at lambing time, as they are not as attentive to their lambs as the older sheep. By keeping the good ewes that remain hearty, and breeding the same ram to them each year, it is easy to establish a uniformity in the type of the flock, and that is worth dollars and cents, whether the product goes to the butcher or the breeder. Sometimes a ewe of strong vitality will continue to breed past the years mentioned; but, as a rule, it will be noticed that the fleeces of her lambs of each succeeding year are coarser than those of the preceding, and the lambs do not appear as thrifty as those of earlier generations. The reason is that the milk supply is failing, and on that score alone the ewe should be sold. Each year the best of the ewe lambs should be selected, and, when these become shearlings, the worst of the old ewes should be sold to make the necessary room.

# SWINE

Conducted by "BRISTLES."

**FATTENING OFF SOWS**—Sows kept for breeding pigs for fattening pay best if they are fed for bacon after their second, or, at most, their third, litter is weaned. If kept longer, their meat will not be so good, and will not bring as good a price.

**POOR MILKERS.**—A sow that has proved herself a poor milker and unable to rear her litter in good shape should never be bred again, but should be sent to the shambles as soon as possible, and none of her litter should ever be reserved for brood sows.

**THE ESSEX PIG.**—The Essex pig resembles the Small Yorkshire and the Berks, but is altogether black. Though not so widely known, it is well bred, and possesses many excellent points. In figure it is compact and symmetrical, and has a small, well formed head.

**WARM PENS.**—All sties and places where pigs are kept should be built so as to keep out cold weather. No animal is more subject to injury from cold and dampness than the pig. We often see pigs crippled by rheumatism, brought about by sleeping in cold, draughty, and damp pens.

**PORK.**—Pork made from pigs that have been fed on peas or beans is much firmer than that from corn-fed swine. There is a special flavor or sweetness about it which cannot be obtained by feeding other grain. The fat does not fry out so much in cooking, and this alone makes such pork desirable for family use.

**AGE FOR MATING.**—A young brood sow that has made good growth may be bred to the boar at six months old, but it should be to a young boar, as she may be unable to stand up under a mature hog. If she "misses" first time, she will come in season again in three weeks' time. When two or more sows are running together, it is easily seen when one is in heat. When only one sow is in the yard, the owner can generally tell that she has "come around" again by her restless actions, and the enlarged condition of the vulva.

## Swine-Breeding in Europe.

Pig-breeding is conducted on an extensive scale on the Continent. Bulgaria and Servia are great pig-breeding and pig-fattening countries. It is to Great Britain that the breeders of pigs in these countries come for their best sires. Hanover had a pig population of 1,037,104 in 1892, as against 762,881 in 1883. The most popular animal of the race there is the cross between the Yorkshire White boar and the native German sow. The latter have the reputation of being hardy and fertile, but, although known, the Tamworth, Berkshire, and Poland-China are not at all in the same favor for crossing as the Yorkshire White. There is a large breeding establishment at Eggersen, where Large White Yorkshire pigs are raised, and, in order to prevent inbreeding, with its attendant evils, sires are, from time to time, introduced from pedigree herds in England. The breeding stock, as a rule, numbers between ninety and one hundred sows and four breeding boars. From these about nine hundred young swine are annually produced, and out of these two hundred and fifty or three hundred are selected for breeding. The others are castrated when eight weeks old and taken off the dam. Young swine intended for breeding are nursed for about ten weeks, and sows are not bred from until they are from ten to twelve months old. They have litters twice a year, and both boars and sows are kept for breeding until four or five years old. The food is not garbage, but good wholesome bean husks, middlings, maize, whole wheat, turnips, and potatoes. The nursing sows are fed thrice daily and sows in pig twice a day. Young pigs are fed from three weeks old, chiefly on middlings and whole wheat, and the utmost attention is paid to cleanliness, exercise, and fresh air. These methods differ widely from those followed by breeders in other countries; yet they are only rational, and it is unwise to expect the sow to breed successfully before she has reached maturity, or wholesome pork to be grown in the midst of dirt, and from pigs fed on every kind of offal.



## Swine with Solid Hoofs.

Specimens of swine with solid hoofs are still to be found in some parts of this continent. They were quite common in parts of Western Ontario some years ago, and no doubt some of their descendants could yet be found. Along the Sydenham river, which runs past Wallaceburg and empties itself into the St. Clair river, they were very common some twenty-four years ago. They lived on refuse fish, and wallowed in the mud on the river banks.

A writer in the *Indiana Farmer* says that he has been raising pigs of this kind for the past five years, and finds them very hardy and prolific, and not so susceptible to disease as the ordinary cloven-footed hog. He claims that they fatten early and grow to a large size, and do not require as much water as other hogs, the structure of their feet showing them to be strictly animals living on firm ground, and not in marshes. Pigs of this variety have been raised in Indiana for forty years, but they have been interbred with Poland-Chinas so long that they show but little of their primitive character. They are supposed to have been brought originally from Tennessee, but this story cannot be verified. However, the first settlers in that part came from the Cumberland plateau in Tennessee, and, therefore, it is quite likely that they brought the ancestors of these pigs along with them.

When these pigs are interbred with split-hoof hogs, the half-breeds present the novel appearance of having the fore feet split. This is the case in every instance.

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## Young Pigs Until Weaning Time.

If the place for farrowing is warm, the sow should be but little disturbed while she is farrowing. But it is better when the owner can be on hand. His presence may oftentimes save the life of a young pig. When the weather is so cold that there is danger of the young pigs becoming chilled so as to perish, they may be put into a basket lined with warm cloths almost as soon as they are born, and conveyed to a warm place by the kitchen fire. They may then be brought out at intervals to take nourishment from the dam. But it is better, in every way, if the farrowing pen is warm enough to obviate the necessity of taking the young pigs away from the dam.

As soon as they are a day or two old, they will get along nicely without any very special attention if the sow is fed properly, and the bedding is sufficient and also dry. But if the sow is overfed during the first week, or if the food is not what it ought to be, disaster in one form or another will come upon the young pigs.

If the sow is overfed just at the first, her udder will become inflamed, and she will not allow the pigs to nurse. If she is fed improper food, the digestion of the pigs will become deranged. They will probably be visited with an attack of diarrhoea. Such a visitation is, in a sense, calamitous where many litters are kept, as, unless great care is taken, the disease will go through the whole herd. To prevent this, lime should be spread upon the floors several times a day, and the pigs of the other litters kept entirely away from them.

Diarrhoea may arise from a sudden change of food in the sow; as from ordinary swill to clover, from feeding sour food to the sow, from overfeeding the sow so as to produce indigestion, and from a filthy condition of the pens. The remedy is to modify the food given to the sow, changing from the kinds more difficult of digestion to those that are less so. A tablespoonful of sulphur given to the sow once a day for two or three days will help to prove a correction in the milk. Exposure of either sow or young pigs to a cold rain may induce diarrhoea.

Where but one litter is to be reared a year, the young pigs may be encouraged to eat with the dam. When between one and two weeks old, a few oats may be thrown on the floor of the pen. They will soon learn to eat the oats without swallowing the shell. The trough for the sow should be quite low, so that the young pigs may soon learn to eat with her. The food that is best suited to her wants will be best suited to theirs. They will soon learn to take their food regularly with the dam, and as time advances they will become less of a drain upon her, inasmuch that when weaning time comes, at the age of ten to twelve weeks, they do not feel the deprivation when the milk of the sow is taken away from them. In fact, they will sometimes voluntarily wean themselves when they get to be about three months old.

But where two litters a year are raised, a somewhat different system will have to be adopted. The aid of skim-milk from the dairy will have to be called in. A place may

be made in which the young pigs can take food apart from the sow. They should be given a low trough, and a little skim-milk may be put in this trough when the pigs have got past two weeks old. They will soon learn to take this milk freely. It should be fed warm, and should not be allowed to stand long in the trough. As soon as they learn to drink it, some shorts may be added, and then the same kinds of meal as are being given to the sow. A little oil meal may also be added with much advantage. In this way the young pigs soon learn to take what will prove a substitute for their mother's milk.

When sows have farrowed, the young pigs should not be allowed to go to pasture with them, and more especially in the spring, until they have reached the age of three or four weeks. In the autumn when they come early, they may go with the dams at a somewhat earlier age. When the sows only are allowed to go to pasture, they do not stay long away from their young: hence they get accustomed gradually to the change of diet which the pasture brings to them.

Any food given to the young pigs directly should be highly nitrogenous in character. It should be calculated to promote the development of muscle and bone rather than to the laying on of fat. If a highly carbonaceous ration were given the pigs, such as corn, or even peas, and in large quantity, the young pigs, if kept confined, would soon lose the use of their limbs, more or less, and they would cease to develop properly. No food ration is better for them than skim-milk, and a meal adjunct added, consisting of equal parts of shorts, ground oats, and ground corn, or, in the place of the corn, ground peas.

### Stock Hogs.

The United States Government reports for September as to the number of stock hogs for fattening show, as a general average for the United States, a decrease of 7.4 per cent. as compared with last year. Hog cholera and "a strange disease" are reported in some states, affecting principally the young hogs, but the chief cause given for the decrease is scarcity of feed. In South Dakota, which shows a decrease of 34 per cent., nearly all the hogs were sold last year on that account.

Eleven states, however, show an increase in number over last year, the most noticeable being Montana, 38 per cent.; North Dakota, 14 per cent.; and Nebraska, 10 per cent.

The average condition as to weight and size is 93.9, 2.6 points over last year; only three states, however, Massachusetts, South Carolina, and Mississippi, show a condition above the normal, and they show an increase of but from 1 to 3 per cent. each. In the South Atlantic and Gulf States the condition is but slightly below the normal, and more hogs are being raised for home consumption.

### Raising Hogs for Market.

By J. B. MUIR.

(From the Report of the "Farmers' Institutes of Ontario.")

Breeding and feeding swine is not considered an honorable occupation by many Canadian farmers. Others are of the opinion that the pig is a nuisance, as he is constantly in mischief. But the pig is an honest fellow; he pays in proportion to the way he is bred and fed.

In raising hogs for market, we should have a definite object in view. This object should be to produce the hog that will realize the highest price in the market at the least cost for production. If your market requires heavy, fat hogs, the Berkshire, Poland-China, or Chester White are suitable. As a rule, the shorter breeds of hogs can be produced at less cost than the longer-sided fellows. The greater the distance the extremities are from the heart, the greater will be the food required to maintain the animal in life.

In selecting the breed, see that the male animal has a good pedigree, that he is a typical animal of the breed he represents, that he is descended from animals that have been in the habit of producing large litters, and that he is well developed for his age. The sow should be selected for rapid development, regular breeding, producing large litters, and gentle disposition. The brood sow should be retained for several years, as old sows produce stronger pigs. She should be allowed to raise two litters annually. If we wish to have vigorous, healthy young pigs, the brood sow should be carefully fed. During summer there is no trouble, as the sow usually has sufficient variety in her food. With the early spring pigs there is often heavy loss from the fact that the sows are given too concentrated a food and not sufficient variety. No one variety of grain contains all the elements of animal life in the proper proportion. Many farmers feed their brood sows largely on peas during the winter, with the result that the

young pigs are flabby and weak, and very often live but a few hours. Milk, roots and oat chops, bran or shorts, with access to earth or sods, make a well-balanced ration, and should give good results if the sow has exercise daily.

The young pigs require a warm, dry pen, and should be attended very closely during the first few hours to see that all are suckled and that none are chilled. Cut straw or chaff makes the best bedding, and only a limited quantity of it should be used at first. Poles should be arranged around the walls to prevent the little fellows from being squeezed by the dam. When a week old they should be encouraged to take some exercise on fine days. This makes them stronger, and prevents them from becoming too fat internally. Castration should be performed when the pigs are six or eight days old.

When six weeks old they should be weaned, which is best done by removing all at one time and returning them after twelve hours, and again after twenty-four hours. This makes a gradual change, and is much easier on the dam. The little fellows should average from twenty-five to thirty pounds at this age, and if they have been taught to eat previous to weaning they should continue to grow as though nothing unusual had happened.

Milk with oat chop and roots makes the best ration we have tried for young pigs. If the oat hulls are removed by a sieve for the first few days, they will eat the food up clean. The trough should always be cleaned out before giving the next meal. We find it an advantage to feed the young pigs four times daily until they are at least ten weeks old; after that age three meals daily are sufficient. Regular feeding is just as important with pigs as with any of our farm animals. At ten weeks old they should average from forty to fifty pounds, and after that age, if properly fed, should increase from one and one-half to two pounds daily. For winter feeding we find that about four times the quantity of roots by weight mixed with chopped grain gives us the best results. The grain is chopped fine and mixed with pulped roots, and the whole soaked for twelve hours before being fed. Salt is added at the rate of one ounce for every one thousand pounds of live pork daily. When milk is plentiful we have more rapid growth, and the pigs keep healthier and more vigorous. In his natural state the pig swallows considerable earth daily, and this should always be provided for winter feeding.

To have the best results the pens should be cleaned out regularly, as the pigs rest contented in a dry, clean pen, and are always on the move when the pens are wet. The troughs should be arranged so that each pig will have an equal chance. A pole along the centre of the trough to prevent them from putting their feet in saves a large percentage of the food. In summer, feeding clover or green peas will take the place of roots, and if milk is plentiful very little grain is required. It should be our aim to force the pigs to mature as early as possible. The younger the pigs are when they arrive at market weights, the greater will be the profit. The food of maintenance increases with the size of the hog, while the daily average gain is just the reverse. From careful experiments extending over three years' feeding, we have ascertained that a newly weaned pig weighing from twenty-five to thirty pounds will increase in weight at a cost of two and one-half cents per pound. When ten weeks old and weighing fifty pounds, it will cost three cents per pound of increase. At fifteen weeks and an average weight of one hundred pounds, the cost of production will rise to four cents per pound of increase, and there is a corresponding increase of cost of production as the pig gets older and heavier. These experiments lead to the conclusion that we should make the average daily gain as great as possible, and also that when pork is selling at low prices we should sell the hogs at lighter weights. Hogs weighing from one hundred and sixty up to two hundred pounds have taken the top prices during the past two years. These can be produced at an average cost of four and one-half cents per pound live weight. As to whether it pays the producer to sell the hogs alive or dressed depends on the markets, the season of the year, and the condition of the animals.

Our experience is that buyers make too great a difference in the price of pork live weight and dressed weight. We have been able to realize the best prices by selling the pork dressed. Buyers meet with so many producers who have their hogs overfed when selling live weight that they reckon on a higher percentage of offal, and this discriminates against the honest producer. With Berkshire pigs weighing from one hundred and sixty pounds and up to two hundred pounds, we find a difference of from seventeen to twenty per cent. between dressed and live weights. With these data you can very soon estimate which way it will pay you best to sell.

## Nutritive Ingredients of Food.

By PROF. J. W. ROBERTSON.

The nourishing constituents of food may be considered under two main heads: The albuminoids, sometimes called "protein," "proteids," or "nitrogenous compounds," are those which contain about sixteen per cent. of nitrogen. They get the name albuminoids from a typical albuminoid, well known to us as albumen, the main constituent in the white of eggs. Albumen is also a constituent of milk. It composes the thin film which is coagulated when milk is heated above the scalding point. The albuminoids are the "flesh-formers" in foods; and, while they may be consumed to produce heat in the body, their main function is to nourish and repair the muscles, nerves, skin, and other parts of the body which contain nitrogen.

In contradistinction to the albuminoids are the "heat producers." These are the carbohydrates and fats of foods. They are the starch, sugar, and gums which are obtained in vegetables, cereals, fruits, etc., and the fat which we obtain in the form of the fat of meat, the butter-fat of milk, or the oils from grains and other plant sources.

The term "nutritive ratio" is the one used to denote the proportion of albuminoids or flesh-formers in food to the sum of the other nutrients in the food. The heat-producing or fuel value of fat in food is two and a quarter times as great as that of carbohydrates, such as starch and sugar, and also two and a quarter times greater than albuminoids.

That the "flesh-forming" and "heat-producing" parts of our food should be in correct proportion to each other is important for the health and well-being of the race. In the food of the well-nourished peoples of Europe the proportion is about one of the "flesh-forming" to four of the "heat-producing," or one to six. In the diet of Americans the ratio is usually from one to six and a half, or from one to eight or nine. In our experimental work in the feeding of animals, we find that it is never economical to feed animals which are being kept for profit through increase in weight or the production of milk upon a ration which has a very wide nutritive ratio. In the fattening of swine upon foods with a wide nutritive ratio, such as would exist in Indian corn, a very much greater proportion of lard or fat to the lean meat is produced in the animals than when similar animals are fed upon a diet containing a larger proportion of flesh-

forming material, as in ground peas, oats, barley, or wheat, with a little skim-milk. The vigor, healthfulness, and apparent contentment of the animals, as well as their profit-yielding capacity, are in a large measure determined by the proportion which these two classes of nutrients bear to each other, as well as to the palatability and digestibility of the food which is consumed.

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## Purchase and Care of a Boar.

Every farmer, says L. N. Bonham in the *Ohio Farmer*, who raises as many as thirty pigs a year can better afford to buy a purebred male pig to father them than to accept service of crossbreds or mongrels for nothing. If one has a half dozen growthy, lengthy sows of strong constitution, whether purebred or crossbred, he can, by using on them a purebred male of compact build, get an even, quick-feeding lot of pigs that will sell readily and pay well for the best care that can be given them. Every pig farrowed from such ancestors will be worth a dollar more per head at weaning time for feeding purposes than pigs from the same sows bred to a mongrel.

If one is not a good judge of a pig, he can do as well to write to some respectable breeder and tell him what kind of sows he has, and what he intends to do with the pigs, and let the breeder select the pig. If there is a breeder of pure stock within a reasonable distance, a better way is to take a crate in a covered spring wagon and bring home the pig. It will be a paying trip to see the way good breeders handle their stock, and breeders are always glad to show their stock and give information.

Having purchased your pig, much of your success depends on how you handle him. Many a grand pig has been ruined by bad handling. Remember that the value of the pig as a breeder will depend largely on the manner of feeding and using him. The male, during breeding season, has a severe tax on his vitality and nervous force. His surroundings and feed, then, are most important. When you get him home do not turn him among your pigs or hogs to fight for his life, but put him in the quietest, shadiest lot you can devise, out of sight and out of hearing of your sows and other stock. After he has been taken out of his crate treat him to a drink of clear water, and leave him to get the bearings of his lot and house. Feed him moderately at the start until you know his capacity for

feed, and never give him so much of feed or slop that he leaves any. He is to be fed for health and vigor and not for the butcher. Hence, give him little corn, all the grass he wants, with oats, wheat, middlings, milk, and such side dishes as apples and relishes from the garden as you can spare.

Never overfeed him, but see that he has a good variety. Treat him kindly. Don't pour his feed into the end of a trough that sticks through the fence, but go into his lot, put your hand on him every time you feed, and see that his trough is always clean before milk or slop is put into it. Treat him like a thoroughbred. Never kick and beat him. If you need to drive him, proceed gently, with nothing heavier than a light switch or buggy whip. See that the fence around his enclosure is strong and in good order, and that his gate is never left open. In a short time he will feel at home and be as quiet and tractable as any cow on the farm, and will grow right along as nicely as a barrow.

On the other hand, if you put him in a lot beside or near your sows, or your fence is poor, or gate left open and he gets out among other hogs, he will give you trouble, and worry until he loses appetite and flesh, and the older he gets the harder he is to control.

It is better to buy the pig some weeks before the breeding season opens, that he may get rested, and strong, and quiet in his new quarters before he is called on for service.

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### Hog Cholera.

In the *Iowa Homestead* Dr. T. J. Dodge, Hamilton, Ill., gives his method of curing and preventing hog cholera, which he has used for years. He has experimented with it by placing a healthy hog among sick ones, and has kept it well by the use of this remedy. The prescription and directions are as follows:

Arsenic,  $\frac{1}{2}$  pound; Cape aloes,  $\frac{1}{2}$  pound; blue vitriol,  $\frac{1}{4}$  pound; black antimony, 1 ounce. Grind and mix the remedy well before using.

The following are the directions for using:

(1) Sick hogs in all cases to be separated from the well ones, and placed in dry pens with only five large hogs or eight small ones in each pen.

(2) Feed nothing but dry food, but no water, only the slop containing the remedy, until cured.

(3) When the hogs refuse to eat, turn them on their backs, and then, with a long-handled spoon, put the dry medicine down their throats.

(4) Dose for large hog: One teaspoonful three times a day for three days; then miss one day, and repeat amount until cured. Shoats or pigs one-half the amount.

(5) As a preventive, one teaspoonful once a week will keep your hogs in a healthy condition to take on fat.



### Sore Snout.

Editor Swine Department, FARMING:

Subscriber: I put rings in some of my pigs' snouts a few days ago, and to-day I observe that one of the pigs has a sore snout. It has festered, and prevents the pig eating properly.

ANS.—In your anxiety to get the ring in securely, you have probably got it in too far from the end of the snout, or else you have not got the two ends of the ring to meet smoothly, and the points are irritating the snout. Remove the ring at once, bathe the snout, and put some oil or grease on the sore. Repeat this if necessary, and your pig will soon be all right. If you ring the pig again after the snout has healed, do not get the ring in too far from the end of the snout.

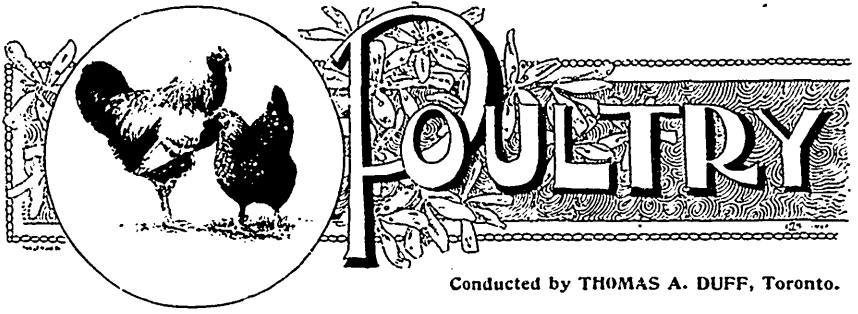
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### Duroc-Jerseys.

Editor Swine Department, FARMING:

Subscriber, Dutton: What is the origin of the Duroc-Jersey swine?

ANS.—Duroc-Jersey swine are an American production. About seventy-five years ago there was a breed of red hogs to be found in New Jersey, as well as in New York and Vermont, but in the latter states these were of a smaller type than in the former. Hogs of this small variety were introduced into New Jersey by Mr. J. Trink, a farmer who purchased them from the owner of a celebrated Thoroughbred horse called Duroc, and the hogs bred by Mr. Trink from this importation were afterwards known by this name. After this importation was made the large and small breeds of red hogs were interbred indiscriminately. About twelve years ago the breeders of these red swine held a meeting in Wisconsin and organized the Duroc-Jersey Swine Breeders' Association. The first volume of the herdbook was issued in 1885.



Conducted by THOMAS A. DUFF, Toronto.

### Three Elements in Profitable Poultry Farming.

There are three elements in profitable poultry farming that cannot be neglected. They are: (1) Facilities; (2) feed and water; (3) the man.

What are the facilities? Warm houses, good-sized runs, conveniences for both the fowls and the keeper, good stock, working capital, and brains. Then comes good feed—the right kind of feed. Egg food for laying hens; fattening food for market fowls. You must depend on one- and two-year-olds for success in both branches. Do not keep a fowl after she is two years of age. Make out of her all you can the first two winters, and then cap the climax by marketing her. Do not palm off stale eggs on your customers; aim to gain a good reputation, and your goods will be in demand; be honest; give the best of care; keep the premises clean; clean up the manure daily; fight the lice the whole year round; nip disease in the bud; have regular hours for the performance of the work, and do your work well. So much depends on the man. He must be bright and active. He must have brains and energy. If he is easily discouraged, he had better get out of the business. He must each year try to improve on the one just past.

### Bad Eggs.

When will the farmers of our country learn that it is dishonest to palm off stale eggs on their customers as "new-laid"? It is really too bad that such a large quantity of eggs should be brought into our markets and sold as "new-laid," when the farmer disposing of them knows full well that he has held them for two months or more. I have in my mind a case in point: On the 20th August last, a friend of mine purchased two dozen eggs, guaranteed to be "fresh-laid," from a well-

known and supposed to be respectable farmer, paying therefor fifteen cents per dozen. When he reached home with the eggs, he found some company there for tea, and decided to give them a treat in the way of fresh (?) eggs. He told them he had bought "some nice fresh-laid eggs from Mr. So-and-so," and a dozen were boiled, when, to his utter disgust, no less than seven were quite bad, and had to be thrown away. It is safe to say that neither that gentleman nor his friends will ever take Mr. So-and-so's word again. The sooner the farmers of our country learn to market their eggs every week, the sooner will the purchasing community learn to trust them. Had the consumer confidence in the producer, the price of eggs would be higher. It is dishonest to sell eggs kept for two months in the heat of summer as "fresh-laid," and only disastrous results can follow from doing so.

### Save the Droppings.

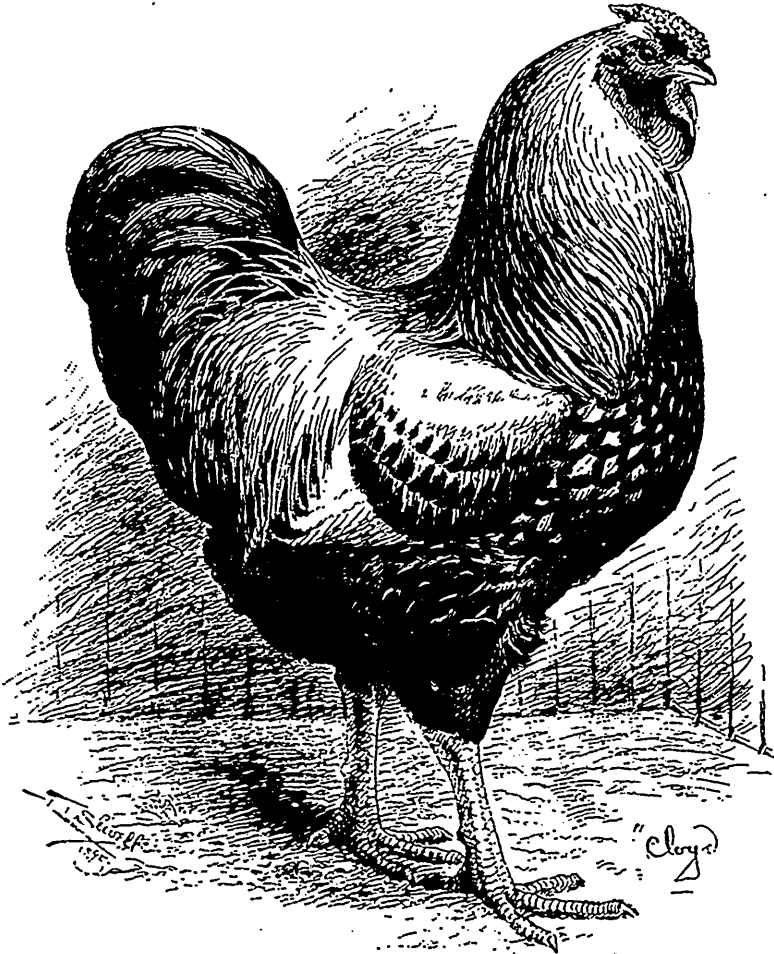
The amount and value of poultry manure are seldom taken into consideration, nor the fowls given credit therefor, when summing up the poultry account at the end of each season. If this were regularly done, it would be found that poultry return a very satisfactory profit each year. There are but few flocks of fowls which produce as much manure as they should, which is not the fault of the bird, but of the poultry breeder, who does not make it a point to properly save and use the manure. The floors of the henhouses should be kept liberally supplied with dry sand, which not only helps to keep the house clean and prevents the floor from becoming damp, but keeps the manure from becoming caked in large, hard lumps, while it facilitates cleaning the house.

The poultry house should be cleaned out—the droppings removed—each week. The manure should be removed to some sheltered and dry place. If it can be done, it should be spread out thinly on the floor of some room

until well dried out, when it can be stored in barrels or boxes for use in the field or in the garden.

Poultry manure is invaluable for nearly all garden crops, while it is often used, and advantageously, too, for field crops, farmers using all of it that can be had on their corn in the hill, though it should be remembered that poultry manure is strong, and it should not be

when fertilized therewith; some of the best onion crops ever raised were manured entirely with poultry droppings. When used with onions, it should not be put in the ground; but, after the shoots have started nicely, scatter the droppings on the ridge between the rows and the hoeings, and the rain will put the manure right where it will do the most good. Mammoth heads of cabbage have been



#### SILVER WYANDOTTE COCKEREL

First at the Mid-Continental, Kansas City, 1894. Owned by Theo. Hewes, Trenton, Mo.

brought into immediate contact with seed of any kind, unless the manure is made fine and dry, and is largely admixed—say, three bushels of fine, well-dried earth with about one bushel of pure, well-dried poultry droppings—with some disintegrating material, when it can generally be safely used.

For early peas it has no superior, while sweet corn, tomatoes, and beans do splendidly

raised with poultry manure, and those who use it for almost any crop, and use it judiciously, need not fear but that it will produce most excellent and profitable results.

#### Why They Failed.

Whenever we hear of a failure in the poultry business, we endeavor to ferret out the

cause. The reasons given are many, and we might put them in a nutshell, as follows: Overfat hens, crowded and filthy quarters, inbreeding, neglected preventives, laziness, poor houses, dunghills, irregularity, too green, "knew all," afraid of work, had more stock than he could attend to, didn't believe in advertising, didn't know how to feed, hens wouldn't lay, lice, tampering with sick fowls, killed off the pullets, paid too much for the whistle, given to theories, did not read a good poultry paper, kept no book account, and, lastly, was too economical.

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### An Important Engagement.

We have received a communication from Mr. John J. Lenton, Oshawa, Ont. (one of our contributors), in which he informs us that he has been engaged by Mr. George W. Vanderbilt, of Biltmore, N.C., to manage his poultry farm at that place. FARMING wishes Mr. Lenton every success in his new office. We shall be pleased to receive a communication from him at an early date describing the buildings, equipment, etc., of Mr. Vanderbilt's farm.

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### Care with Poultry.

By JOHN J. LENTON, Oshawa, Ont.

Success in raising poultry depends upon the intelligent management of the flock. The poultry business, as it relates to the production of fowls, is a source of greater profit, for the amount of money invested, than any other branch of work handled on the farm. The uncertainty of the business, owing to disease, has caused many people to regard it as a risky investment, and they prefer to stand off and look on, while the venturesome gather the eggs and supply the market with spring chickens.

The time was when any old grandmother could raise all the chickens she could feed, and at little or no expense of fixtures or appliances for their care. The old hens would hide their nests in the weeds, and in due time would bring out a large flock of chickens. They were of the old dunghill sort, and had no special ancestry that any one knew of. There was no "breeding to feather" or plumage markings. It mattered not whether they came black, white, or speckled; the hope of securing a large number was the governing motive with the chicken-raisers, and their hopes were generally realized. Cholera,

roup, and the ills now so common with fowls were not known. The "varmints"—weasels, minks, rats, and hawks—were all the enemies that the old ladies feared in the chicken business. It is argued, with some effect, too, that with the introduction of improved breeds of fowls came the diseases now so common with our poultry, and that the improved breeds are not as hardy as the old native "dunghill." This is a question not worth arguing, simply because the old dunghill has been displaced by the improved fowl, and the evils of disease are everywhere distributed over the country, let the cause of the introduction or origin of disease be traced to whatever source it may.

The question now is, How shall the flock be managed to make it most profitable? It is absolutely necessary that the poultry-raiser be thoroughly posted on diseases, their symptoms and treatment, and the care and treatment of poultry under various circumstances, in order to steer clear of disease. This requires study and reading upon poultry management. Persons who have made poultry-raising a specialty for years have gained a knowledge that is valuable to the beginner. They may, by reading a few pages, learn what experimenters acquired by years of work and study, and often at the expense of hundreds of dollars. The raising of poultry, to be taken off by disease whenever circumstances direct such a fate, is not in the least encouraging to those who would engage in the business. As to those who are not thoroughly posted, they stand as if their hands were tied, powerless to do anything to protect their flock. Thus hundreds of persons are, each year, cleaned out of fowls, and discouraged in making further attempts. A good book on poultry diseases should be in the hands of every poultry-raiser, and fewer failures would happen.

[We shall be glad to have an article from Mr. Lenton on the subject of "How shall the flock be managed to make it most profitable?" and something touching upon the more common diseases, such as cholera, roup, canker, etc.—ED.]

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### Pointers on Turkey Culture.

Willett Randall, in *Interstate Poultryman*.

Why is it that this beautiful and useful bird is not more extensively reared on our farms at the present day? Is it because they are so delicate and difficult to raise, or because they devote a good share of their time to wander-



ing, or both? Yes, we know they are tender; but, if the right course is taken, they can be raised almost as easily as chickens. Now, if my turkey friends will listen, I will tell them how I hatch and raise turkeys.

First, I will start with the parent stock. They should be the largest, earliest, best shaped birds in the flock. They should be well wintered, so that they will begin to lay early in spring. Many people make a great mistake by keeping those small, late birds that are too small to sell at Thanksgiving. Ask them why they keep those weak little things, and they say, "Why, they will lay just as well as any." Yes, they will lay, but what are the eggs good for? If they hatch at all, the turks will be weak, puny little things, that will peep around a few days, and then "go over to the majority." One of my neighbors kept eight of these late birds, and has got only twenty turkeys from the eight; another friend kept three, and has, in *all*, but five young ones. I told them last fall they were making a mistake, but they didn't agree with me, but have found to their sorrow that they were wrong. The *very best* are none too good to fill the important office of breeders. For market purposes alone, I prefer pure bronze hens mated with a white Holland tom. This mating gives a good fair-sized bird, that will weigh from ten to twenty-two pounds, according to sex and mode of rearing. Of course these are not extreme weights for turkeys, but birds that will dress from ten to sixteen pounds sell much better than larger ones, and, as some one has rightly said, the day for the enormous gobbler has passed.

Don't sell the old hens, because they are better breeders than young ones; they lay a much larger egg than a young hen, though not quite as many in number, but the young poults are stronger. Old hens are very fond of stealing their nests away, where they are not easily found, but a little pains at the start will save all this unnecessary trouble. In the spring, as soon as the snow begins to disappear, I take some old sugar or flour barrels and give them a good coat of paint (this prevents them from falling down); these I take a short distance from the house, and place them flat on their sides in the bushes in the direction where the turkeys usually go. I always put some leaves or straw in, and partially cover the opening; this is sure to catch the eye of the turkey hen, and nine times out of ten there is where she will deposit her eggs. It is well to have one or two nests more than

there are turkeys, as this prevents two from laying in one nest, as they sometimes will. The laying season usually begins about the middle of the month of showers, and, if the hens are not disturbed, they will be sitting by the middle of May. Some hens lay much earlier than others. We had one this year that laid March 17th; but this is unusual. The time differs greatly in different localities, and the way in which the turkeys have been wintered. As soon as the hens commence to lay, it will be announced by their continual calling, and the importance and pride of "Uncle Tom." As soon as the hen has finished her litter, which is usually from twelve to twenty-five eggs, she should be removed to a room by herself, which, by the way, all turkey raisers should have. This room should have the earth for a floor, as turkey eggs hatch much better on the ground. Cover this floor with clean straw, to the depth of six or eight inches. In each corner should be a nest. Don't set the hen-turkey in a box or anything of the kind, simply give her one corner of this room to sit in. Give her from fifteen to twenty eggs, according to her size, and then let her alone to enjoy herself. If she has been carefully handled, there will be no further trouble, and you can go to bed, and rest assured that skunks and foxes are not disturbing her. Turkeys will usually do no harm if all are set in the same room, and, if not set too close together, each will soon learn which is her own nest. They should be provided with a pan of whole corn, a dish of gravel, and some fresh water, every day. The date should be set down when each is due to hatch. As soon as the day arrives for the young poults to come forth, you should have a pen ready to receive them. This pen should be about eight by ten feet, and one foot high, with a shelter over one corner to protect them from rain.

While the turkey is hatching keep away, and don't be too anxious to know how she is coming on. We find they do much better, as frequent visits only make her uneasy, and she is liable to kill her poults. Keep them in this pen until they are able to fly out, then let them go and enjoy their liberty. As to the mode of feeding, I will let you follow your own course, as authorities greatly differ in regard to feeding young turkeys. Now, this is the way I feed mine, and I have not lost a single one this season: Feed nothing for the first twenty-four hours after hatching, as the first food of turkey, chick, or duck, is provided within the

egg. First, I give them curd made of sour milk; in this I put some fine gravel (not dirt), as gravel is something that should not be overlooked in the turkey's bill of fare. I also feed onion tops chopped fine, and wheat bread moistened with sweet milk, but no boiled eggs, as many recommend. This constitutes their whole feed for the first month; after this they are fed a little whole grain each morning and evening, just enough to call them home at sunset. Do not let them roost away from home, but bring them in at a regular hour each night and they will soon learn to come at supper time. This is all that can be done on your part until the time for fattening in the fall, when they should be confined for about three weeks, and enjoy a happy feasting time. Cornmeal and cooked vegetables or buckwheat are among the very best foods for fattening them. They should have all they will eat, four or five times a day. This will put them in fine shape for Thanksgiving, which we think by far the best time for selling.

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### Washing Fowls.

By JOHN J. LENTON, Oshawa, Ont.

As the fair season is here again most poultrymen are thinking of showing their birds. At this season most fowls are very dirty, and to look well must be washed, and well washed. As we see so many half-washed birds at the fairs, perhaps it may be a good idea to give a few hints on how the operation is performed successfully.

Washing is very simple and easy, yet many spoil their birds by only half carrying out the operation. They fear they may damage the plumage or wet it too much, or that they will be unable to get the soap out, or to properly dry the feathers, and thus scores of birds are ruined in appearance by only partially cleansing, when they would have looked better if they had been left untouched.

Birds should be washed two or three days before they are wanted for show, and our favorite time for tubbing is when the sun sets: then the birds are more docile and likely to be quiet. Care must be taken that the tubs are free from grease. Cans impregnated with iron must on no account be used. Rain, spring, or clear pond water is the best. Provide white cured soap, a wooden nail brush of fair size, a sponge, some clean soft towelling, and a good open fire which can be kept for the birds exclusively for the whole time of drying.

Put in one tub of warm water a good lump of soft soap to make a tub of suds; melt up every atom of soap. Then, if the water is not warm enough, pour in hot water to obtain a comfortable temperature; then place in it the cleanest bird and soak it from head to foot. Rub the suds under the wings, in the thick featherings, round the back, and in the neck hackles; do it thoroughly, make the bird look like a drowned rat; take the sponge, and with the cured soap make a lather and go over all parts carefully, but thoroughly. With nail brush wash the legs and feet, and then, with sponge in hand, rub over and over again the whole body from head to tail. Fear nothing with a big fowl, so long as his head is above the suds. Then, when all is clean, extract a feather from such part of the bird as was the dirtiest, and, rinsing it in cold water, see if it is clear and white; if so, stop; if not, repeat the washing until the plumage is pure.

Next, put the bird in the second tub which has been filled with lukewarm water, and wash out every particle of soap. When this is apparently done, pull out a feather and place it in the mouth; should it give a soapy flavor, rinse again; but if it tastes quite clean, the bird is placed on an upturned basket to drip, and the second cleanest bird goes through the same process, and, by the time that is completed, the first is ready to dry.

The drying operation is quite simple, but requires great care. Take the bird firmly by the thighs, and, with a sudden swing, hold it in the air and it will stretch out its wings, and, flourishing them about, will shake itself several times. Then place it on something clean, and gently rub with the towel from head to tail; then one more good shake and the bird goes to the fire. Do not let the bird dry too hastily, or the feathers will not lie straight.

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### A Simple Cure for Roup.

Mr. E. H. Sanders, of Watford, gives the following as a quick and sure remedy for roup or cold, and it certainly has the merit of simplicity. He says: "I bruise onions to a pulp, and then squeeze out the juice. With a syringe I force the juice into the nostrils and into the throat three times daily. I also make a pill of equal parts of the pulp and bread, and give it to the sick fowl. Three or four days of this treatment will prove a sure cure." —*Report of the Poultry Manager, Dominion Experimental Farms, Ottawa.*

## Buff Leghorns.

By E. P. SHEPHERD, Croton Falls, N.Y.

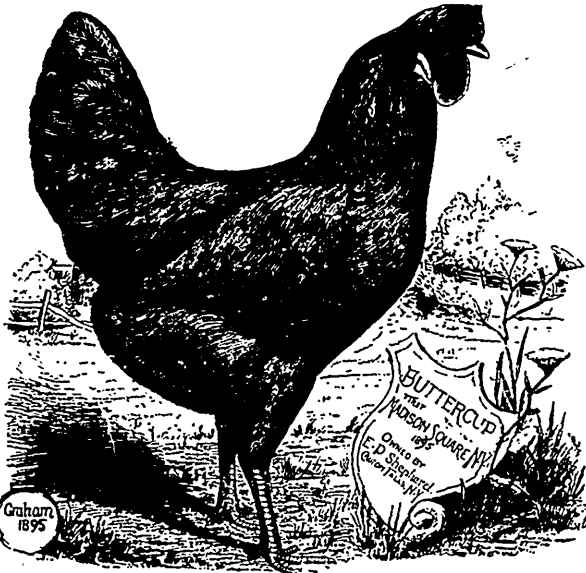
Although this variety of the Leghorn family have been in this country but a few years, they have won favor with many of our leading fanciers. The great improvement made in perfecting the breed has been wonderful, considering the foundation stock that the American breeder had to build from. Probably only a few saw the first importations. Well, they were hardly fit to be called anything but scrubs; but to-day we have specimens that are worthy every bit of the name given them, and in color they compare favorably with our old-time breeds, the Buff Cochins. At the leadingshows we have seen specimens that were the equal in surface color of any Cochin shown, while the females still lack the deep, rich buff under-color. The improvement in this direction is expected to be quite marked this year. A few of the males shown at last season's shows were all that one could wish for, both in surface and under-color. Every difficult point to get, as white or black, is continually cropping out. Many breeders are losing sight of the Leghorn type. There are too many male birds shown that are of Plymouth Rock shape, viz., having broad backs and breasts and short sickle feathers. Such birds are only Leghorns in other characteristics. It is hoped that they will soon disappear, for the fancier must not forget that the true Leghorn style of bird will win, with many judges, over the coarse type, even though he may not be so good in color.

Again, there is plenty of room for improvement in getting more daylight under the birds. More length of leg will give the fowl more of

a rangy appearance, and such birds are the best layers. In building up my strain of Buff Leghorns I never lost sight of selecting only the true type of Leghorn.

When first handling this variety I was breeding the Whites, Browns, and Blacks, and thus I took for my ideal shape for the Buffs the best types of birds I could find in the other varieties, and, since fixed, I have stuck to it.

Buttercup, the cut of which is shown, is the finest specimen of her kind I have seen yet, and, in the hottest competition at New York, Troy, and Newburgh, she was awarded first honors, and acknowledged by the best of authority "the finest ever seen." She is the



**BUFF LEGHORN PULLET**

First at New York, Troy, and Newburgh, 1895.

product of years of careful breeding to prove that she was not a lucky shot (as we sometimes find in the poultry yard). I beg to state that the first cockfel at Newburgh and Troy, and cockerel second at Troy and third at New York, and pullets second at Newburgh and Troy and first at Danbury, Ct., and pullets in first

pen at New York, were own sisters and brothers to her, the style and color of Buff resembling her very much. This season I look for some proud specimens of this variety in our leading shows, that will eclipse anything shown yet, and be as far ahead of last year's product as last year's best birds were ahead of the previous year's showing. Remember, there is always room for improvement.

### A Wise Hen.

"Do shut up your noisy head!"  
The mistress to a pullet said,  
"Caderick! Caderick!" the hen replies;  
"Pray, tell me, madam, do, I beg,  
How you would know I'd laid an egg  
If I did not advertise?"

—Printers' Ink.



Conducted by "AGRICOLA."

### A Cart on Every Farm.

There should be a cart on every farm as soon as the farmer is in a position to afford such a luxury. A cart, with cart harness, an old stand-by of a horse, and a good active boy, make quite an institution. There is no season in the year except the winter when it cannot be utilized to advantage. It is so convenient, if a few bags of seed grain are to be taken to the field, if a little manure is wanted in the garden, or if wire and other trappings are to be taken to the fields to build or repair a fence. In fact, there is no day, scarcely during which the cart will not be in demand where its great value has been ascertained. It is easy to load up, as the axle should not stand high, and it is marvellously easy to unload. A man may dig potatoes during the day and load them in his cart and bring them home at night. He can take up his vegetables for winter, and put them in a cart. When weeds are to be taken off the garden, they can go in the cart at once to the compost heap. Of course, these things can be done with a wagon and two horses; but when one horse can do the work that without a cart would take two horses, the expense of the work is very much lessened. We can no more afford to keep two horses doing the work of one than we can afford to keep two men doing the work that one ought to do. The principle is the same. Those farmers who have never used a cart upon the farm can scarcely appreciate its value.

### The Value of Turnip Tops.

The tops of turnips and other roots are commonly left on the field to be turned under with the plow, and ordinarily, where roots are grown in large quantities, they cannot be put to a better use. They improve the land not only by the plant food which they contain, but more, perhaps, by the mechanical influence which they exert upon it. They make it more

porous, and they also enable it to hold more moisture. But farmers may be so situated that they can use a large proportion at least of the tops grown as feed for stock. When they can, it will probably pay to do so. They can be drawn and fed to cattle or other animals. Where the farmer has lots of good diligent boys, one of them can spend a part of the day in doing this work, and the others may sometimes help him. One of the little fellows can drive while an older boy pitches on the tops. Good boys will not complain when they have such work to do. "Agricola" often drew turnip tops to the cattle when he was a boy. But they should not be fed to cattle without discrimination. If large quantities are given at first, purging will follow. But a few pounds of tops per head per day given to cattle on old pastures will do them good. They will prove to them both a tonic and a food. And remember that they are fine for the calves and the pigs.

### Neatness Around the Dwelling.

How very beautiful our farm homes may be made, if only we desire to have it so! And to make them beautiful we do not need to go to any great expense. A home may be simply charming, though the dwelling should be made of logs from the forest. Climbing plants will cling to the walls of such a home just as truly as to the brightest palatial mansion that wealth may build, and they adorn it even more, for the contrasts in the first instance are greater. Weeds and long grass in a dooryard are unseemly in front of the lowliest dwelling, and a little time spent in using the scythe will soon cut them down. Broken, shattered fences are not excusable because the farm home is unpretentious. Broken boards and rubbish here, there, and everywhere disfigure any home, and those who want to have it otherwise can, as a rule, do so, if they only try. I do not like to speak so plainly, but, farmers, isn't it true? Now, be honest in your

answer. Spend just a little while in the evening in trimming up a bit about the home, and see if you don't enjoy it more and more as time goes on. You will soon take a pride in your home, such as you never felt before. I know that one feels a bit weary on the farm when evening comes, but a little done each evening in the line pointed out will not be burdensome if taken in moderation. We are always ready to make excuses for work not done; but excuses which are not valid are of less value than no excuses. If we want to have things neat around us, we can; and if we want to have it otherwise, we can. It is not a question of money, but one of will. One man will not be neat in costly clothes. His wardrobe will never be in order. Another man will be as neat as a pin with several patches on his clothes. Boys and girls, "Agricola" cherishes the hope that you will read this. A boy is no better nor braver whose hair is nearly always in a tangle than one whose hair is nearly always smooth and nicely parted. And a little girl with dirty face and undressed hair—oh, what a picture! Depend upon it, neatness is a matter of will rather than of opportunity.

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### Shredded Corn Fodder.

The world is moving. The activity manifest everywhere in these modern days is simply marvellous, and nowhere do we find the spirit of invention more active at the present time than on the farm. Almost every week we are treated to something new in the line of invention, something fresh in the direction of progress.

One of the newest inventions which promises to be greatly useful is known as the corn shredder. It is a machine through which corn fodder, unhusked or husked, may be run much on the same principle as grain is run through a threshing machine. When unhusked corn is fed into it, the corn is husked, and falls on to a carrier which conveys it into a wagon, if so desired. The straw is torn into shreds or strips, and is conveyed by a carrier or by carriers into a mow, if it is thought best to store it there. And the straw may be put through the machine in the same way, after the corn has been husked, to prepare it for being fed to greater advantage. But there would seem to be no good reason for husking the corn by

hand when one can get it done by such a machine, and done just as perfectly as when it is done by hand labor.

The advantages claimed for the machine include the following: First, there is an immense saving of hand labor in the husking. Second, the stalks are so torn and shredded that they will be eaten up by the cattle with but a small percentage of loss. And, third, it enables the farmer to store a large quantity of fodder up in a mow or to put it in any convenient receptacle for future use, and it enables him to do it on a wholesale scale and in a very short time.

But it should be borne in mind that while this machine may become a great boon to western farmers, where the weather is such that corn fodder gets a great deal drier than in Ontario, it may never be of the same advantage to us. A farmer in the west may run a large acreage of corn through the shredder, and store it in an immense loft and have it keep until it is all fed out months later, but the same thing could not be done with us. Our climate is much more moist, and in consequence the corn would not dry out in the fall, so that it could be thus stored away. Even in the west we find instances of the heating of such corn straw, sometimes to the extent of producing spontaneous combustion.

Another objection to the use of the shredder with us would be found in the amount of snow and rain which falls in our climate. In many sections of the far west a farmer may hitch a chain around a large corn stook, and draw it to the stable, the corn being still in fair condition where it has been well soaked. So little rain falls, in many instances, that the corn preserves perfectly outside. But, with us, rain and wind and snow make great havoc sometimes with a crop of corn.

While it is not safe to say that there is no place for the shredder in our country, it is safe to say that it is not likely to be so useful here as in the Western States of the American Union. In these, or in many of them, the silo makes but slow progress, while with us it is moving on apace. Let us go on, then, and build silos. With the market that we have for dairy products there is a great field for further extension in this line. And no better or more useful plant in furnishing food for dairy stock has ever come to us than corn, unless it be clover. In the meantime, then, we can afford to go on our way without allowing ourselves to become unduly excited about the corn shredder.

### Repair the Breaches Promptly.

This question is one of great moment to the practical farmer. In every business it is greatly important that the breaches be promptly repaired, but it is particularly important in farming, since, when work is done there which relates to crop production, it should be done with great promptness, and, if it has to be done with implements not in repair, the loss resulting may be serious.

It is well, then, to keep a sharp lookout for the first indications of waste or decay, and to have repairs made before the wear or worn part has given way. Such repairs would be more cheaply made then than later, for breakages take place when implements are in use, and then time cannot be well spared for making such repairs, and there is the further loss from delay in the accomplishment or furtherance of the work in hand. It would be well, therefore, to look carefully over farm implements in the fall when they are put away, and to have them promptly repaired before the time comes when they will be wanted for use. Where the repairs can be made at home, they should by all means be done in the slack time of the winter season. Where they have to come from the machine shop, they should by all means be bought in good time. To leave their purchase till the last moment means delay, it may be, in beginning the work that is waiting to be done. It means loss of time, it may be, in getting the repairs made, or in obtaining the supplies wanted; as, at such a time, very many persons are seeking supplies, so that orders cannot be filled with the same promptness.

The same line of reasoning will apply with reference to repairs in fencing and in the buildings of the farm. It may be that the top rail is decayed on one panel of a fence. The owner sees the broken rail, but he concludes that at some other time he will repair the break, and it is finally forgotten. Some time in the season one animal in the herd finds the low place and jumps over into the adjoining field. A second rail is broken in the act of going over, and, it may be, that the whole herd follows, and much damage is done to the crop. The breach is then repaired, it may be in a very busy time, and when the labor can ill be spared. But the repair has been too long delayed, for then the leader in the mischief that has been wrought finds out its power. It jumps again, and successfully, where there is no breach, and more mischief is done to the

crop. The animal has then to be restrained, it may be, by keeping it confined. Now, all this would have been prevented had the broken rail been repaired when it was first noticed.

Thus it is that a common illustration has much point when applied to this question. We refer to the illustration of a leak which has sprung in the dam of a river. At the first a very little would repair the breach. It may be that the work of an hour or less would suffice. But the breach is not repaired, it quickly enlarges, and in time it sweeps the whole embankment away.

And with animal life it is quite as important that any ailment must receive attention at once. Just a little extra care at the time would probably stay the progress of the ailment. But the attention is not given because of the pressure of other work. The ailment grows worse, and the animal is lost. It is even doubly wise in dealing with animal life to give careful attention to anything that may have gone wrong with the greatest of promptness. Such life is more easily injured than other forms of life; hence we require to deal tenderly with it.

Farming is a business that requires constant thought and watchfulness. It calls for the exercise of much forethought and great promptness of action. The man who is to succeed will have to give the closest of attention to his work. Every feature of his work will have to be carefully surveyed. He will try to keep a sharp outlook for indications of wear in things inanimate, and of ailments in things animate, rather than shut his eyes to these things, and, however much inclination may pull him in other directions, he will be prompt to try to right at once whatever he finds going wrong.

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### The Value of Coal Ashes.

A ton of coal ashes contains about seventy-five pounds of lime, thirty-six pounds of potash, and five pounds of phosphoric acid. Taking the ashes simply on the basis of the fertilizing ingredients which they contain, they would be worth considerable in promoting plant growth. But we do well to remember that of the thirty-six pounds of potash not more than two pounds are available. The intense heat of the coal in burning has changed the potash with sand into a sort of glass, which even boiling acid will not dissolve. Over 1,800 lbs. of the ton of coal ashes consist of earth reduced to a fine dust or powder by the action of fire. Coal ashes contain much less

fertilizing matter than wood ashes, although they are organic in their origin. The vegetation of the carboniferous era contained more silica than that of our era. And very much of the soluble potash and phosphoric acid in the vegetable matter of which the coal is composed has been washed out of the same by the leaching to which it was subjected during the passing of the ages.

It is therefore apparent that coal ashes are not possessed of much value as plant food, and yet they have been applied to soils frequently with much apparent advantage, and, in consequence, the belief has gained currency among those who may have used them that they are capable of furnishing plants with a considerable proportion of nutriment. It has been noticed, and more especially in connection with light soils, that clover grows more freely after they have been applied than before. But it would be a mistake to suppose that the plant food furnished by the potash is the cause of the increased growth of the clover. It is rather owing to the mechanical influence of the wood ashes on the soil, as will be apparent after the explanations given below.

Fertilizers have, to a greater or lesser extent, a threefold action when they are applied on soils. First, they feed plants directly. Wood ashes when unleached have a large percentage of soluble potash. This soluble potash is taken up directly by the plants, and, in consequence, a rapid growth is stimulated. But very little of the potash in coal ashes is available, and, in consequence, the plants cannot get it. Second, they act chemically upon the soil, and cause it to yield up certain forms of plant food which would not become available but for the action of the fertilizer. The potash and lime in wood ashes have a very considerable chemical action on the soils to which they are applied, but the chemical action of the coal ashes is not very marked, for the reason, first, that they do not possess great quantities of lime and potash, and, second, that much of the potash especially is in the inert form, and so does not act chemically on the land. And, third, they act mechanically upon the soil. The mechanical action of fertilizers is the effect which they produce upon the soil in making it hard or soft, wet or dry. When farmyard manure is applied to stiff soils while in the fresh state, it improves the tilth by keeping the particles of soil further apart than they would otherwise be.

The mechanical action of coal ashes is

marked under some conditions. When applied on light sands the finer particles of the ashes help to fill the interstices between the particles of sands; hence such soils are enabled to hold more water. When rain falls it does not leach down into the subsoil so quickly, and when ground moisture ascends it does not escape to so great an extent into the air, and the dry atmosphere does not so readily pass between the particles of the soil, so that there is less loss of moisture through evaporation. For these reasons, then, the sandy soil is rendered capable of retaining considerably more moisture, and the influence upon vegetation is sometimes considerable. But we must not run off with the mistaken idea that the result is due to the plant food in the ashes.

When coal ashes are applied to stiff soils, the mechanical effect is just the opposite. They tend to render them more friable. The particles of the coal ashes are probably not as fine as those of the clay, and they are not so adhesive. When, therefore, they are applied on clays they make them more porous, and, in consequence, air and water can pass more readily through them for the benefit of the vegetation grown upon them. When freely applied as a mulch to small fruits, the effects are usually advantageous to the bushes. The ashes tend to keep down grass and weeds, and they also act as a mulch in the sense of preventing the escape of moisture by undue evaporation. But when coal ashes are applied on land in this way, the coarse portions should be first sifted out, or they may become impediments to cultivation.

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### Storing Cabbages for Winter Use.

A goodly supply of cabbages for the winter means a great deal to every farmer's table; and why should they not be found on every table in the country, whenever it may be thought best to have them? They are so crisp, and tender, and nourishing, and to very many they are also appetizing. It is not difficult to grow them, nor is it difficult to preserve them for winter use.

A very common way of storing them consists in digging a trench wide enough for a triple row of heads. It need not be deeper than a few inches, but it must be in land with good natural drainage. In this place a triple row of cabbages, with the heads downwards, and then cover them with earth. They can

be dug out as wanted. This system does fairly well in localities where the winters are not exceedingly severe. Where they are, the ground would remain so hard that the cabbages would not be accessible in the winter season. This difficulty could be measurably met by covering the earth with coarse litter after it had become just a little frozen.

A second way would be to tie the roots of the cabbages together in pairs, and then suspend them over a pole just high enough to admit of the heads resting on the ground. The pole could be sustained by crotches, or any kind of supports that would keep it high enough from the ground. There would be no trench dug in this case. Then cover the cabbages with boughs or coarse straw. Rye straw would be excellent; so would old native grass cut from fence corners. Then put three or four inches of dirt over the cabbages, except the roots, which may be left bare. It may be advantageous sometimes, also, to cover with litter of a coarse character, but in sections where the cold is not extreme this will not be necessary. When cabbages are thus stored, they are easily accessible, and they keep perfectly. They may even be kept thus without being suspended on the pole. But in either case it would be advantageous to draw the roots of the cabbages together by tying them.

By a third method they are stored in the cellar. When thus stored, the following plan may be adopted among others: A row of cabbages may be placed against the wall of the cellar, or of a part of it, with the roots downward. Then another row may be placed in the same way against the second, and also against the third, until as many rows have been stored away as may be desired. When there are tiers of shelves against the wall, the cabbages may be similarly stored on these. But care must be taken to have the cellar kept cool, down as near to freezing point as possible, without actually admitting frost. And much care should be taken to have the cellar well ventilated, as cabbages very readily imbibe the taint of mustiness, and, in fact, of other odors. The heads should be upward to prevent mould, but this position is not so necessary when the heads are on shelves. This method is more particularly applicable to the storing of the plants that are wanted for use in the early part of the winter. Through the whole of the winter they cannot be kept so nice and fresh in the cellar as when stored outside by either of the methods given above.

Cabbage's should be left in the ground as long as possible before lifting them. In no other way do they keep so well. And when they are lifted, the leaves should not be removed, whatever be the method of storage adopted. Of course, it is not necessary to leave on every spreading leaf, but all the leaves should be left on which adhere firmly to the stalk around the head. When thus protected the heads not only keep much better, but when mould appears it will rest upon the exposed portions first. And the outer leaves also tend to shield the heads from dirt which may adhere through the process of pitting the cabbages.

We oftentimes notice that as the season advances there is a tendency in the heads to burst open. This tendency is greatest in those plants which are the largest and most vigorous. This is only natural, for it is the outcome of a continuance of exuberant growth. It may be, at least, partially prevented, and it is important that it should be prevented, for the bursting open of the head renders it much more susceptible to the influences which produce decay. It may be greatly hindered by simply loosening the hold which the roots have upon the soil without removing them from the soil. This may be easily done by the use of a long, narrow, and strong spade. The spade is sunk in the ground under the taproot of the cabbage, and then pressed backward. Growth is thereby checked in the plants. But care must be taken not to loosen the plants too early or too much.

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### Forest Fires.

It is seldom that a season passes without a number of forest fires. These do their destructive work sometimes in one place, and sometimes in another. In some forests they are more destructive than in others, much depending on the kind of wood, the extent to which the drought is prolonged, and the character of the soil. But, as regularly as the season comes, the same mournful tale is told by the newspapers. They are ever and anon filled with headings underneath which is chronicled the fearful extent to which property has been sacrificed by means of forest fires.

But the loss of the timber is not the only loss. The surface of the soil is burned over, and, as a result, the humus which has been gathering for centuries is burned off, and the



result is that only the ashes are left. This, viewed from the standpoint of the agriculturist or the forester, is a grievous loss. In marshes, for instance, the waste of fertility is very great. Sometimes the equivalent of what would make many inches of soil capable of sustaining plants for a long time is turned to ashes. It goes away in the form of smoke.

In very many instances such lands do not soon re-clothe themselves with forest, even though they should not be cultivated. The soil is poor, and, in consequence, young trees will not readily grow on it. It may be that they have enough fertility to grow weeds; hence they become covered with weeds, and these are, in turn, followed, but slowly, by some kinds of timber.

The sources from which forest fires emanate are various. Some of them are started by the carelessness of settlers in burning the debris on their lands which may impede cultivation. Some are the result of camp fires left by hunters, which have not been properly extinguished, and some come from the engines of locomotives. To lessen the danger, the legislation on these points should be much more severe than it ever has been.

The first source of danger would be the most difficult for the law to deal with. There is some reason as to why the settler should have a chance to clean his lands from impediments to cultivation. But still, while doing so, he has no right to imperil the property of his neighbor. No person rightly constituted would think of doing so. But it is sadly true that very many are not rightly constituted; hence legislation has a right to deal with this class of offenders also. The laws which may exist on this point should certainly be enforced.

The second class are entirely without excuse. There is not even a shadow of reason in their leaving a camp fire unquenched which may become the means of destroying what is worth millions and millions of dollars. The measures for dealing with those men cannot easily be made too severe. Hunting, at the best, does not seem to add much to the wealth of the nation. As a pastime and a recreation no one can say a word against it, when the law is not transgressed, and when valuable time is not wasted. But when it becomes the agency by which great properties are destroyed, then the strong arm of the law should so regulate it that men will be careful as to how they conduct themselves while thus engaged.

Nor is there any reason why railways every year should be the medium of transmitting fire to field and forest. If such transmittal can be prevented, it certainly ought to be; and, if it cannot, then the inventor should be called in to devise some means of preventing the barbaric waste that is caused by railway fires. There should be no great difficulty in tracing the origin of a fire which originates in the sparks or coals coming from an engine on a railway track. If railway companies are to be the medium of burning up the country, they should be made the medium of paying for the same.

It is singular that men are so prodigal of the sources of wealth, when these may be plentiful. It is always so, but it is more surprising that they should be so prodigal of the same when these are becoming scarce. Our forests will soon be gone, and we do not seem to realize the fact. It reminds one of the man sadly in need of the physician, and yet he does not know that he is ill.

When it is too late, we shall wake up to the realization of the fact that our forests are gone. Though this may not be so grievous in our day, it will be in that of our children. It may be said that it matters little to us how much or how little timber will be left to our children, but no man will talk thus who feels that he has a stake in the country.

Many speakers and writers wax eloquent over the wisdom of planting trees. They are right. Many reasons may be given showing why we should plant trees. But it does seem, notwithstanding, as though it would be wiser to stop the leak in the vessel before pouring water into it. We shall not gain on the whole by planting out trees, so long as we allow a far greater number of trees to be burned every year by forest fires.

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## The Weather in the Northwestern States.

The weather in this northwestern country would be considered peculiar, viewed from the standpoint of Ontario conditions. On the whole, the extremes are greater than in Ontario, and the changes are even more sudden. There is less of moisture in the atmosphere, summer and winter, and there is more of sunshine in the Northwest, particularly in the winter.

The springs are somewhat earlier with us than in Ontario, more especially in Minnesota

and South Dakota. The precipitation being light in winter, the soil is soon ready to work in the spring. Sowing grain in southern Minnesota oftentimes begins as early as the closing days of March, but sometimes not so early. Soon after the snows have melted, the bright suns dry the surface of the ground, and the farmer can set to work to sow his seed as soon as the frost has been far enough removed so that he can cover it. The frosts are sometimes severe, but probably not more so than in Ontario. The dry weather of early spring is favorable to early sowing; hence the farmer who is diligent seldom gets behind with his spring work. The rains come later, and if there is enough of rainfall a good harvest may be depended on with no little certainty. But in some instances there is wet weather in the early spring, and, when such is the case, it is unfavorable to the work of the farm, but not so much so as in Ontario, as much of the soil here is more open in texture.

The summers are usually drier than in Ontario; sometimes there is too little moisture, and when such a condition of weather prevails the crops suffer. The air of summer is usually warm in the day, and in some instances hot and enervating, but it is seldom that the atmosphere is not refreshing at midnight. The winds are sometimes warm and dry, and, when they blow thus for two or three days in succession, they drink up much of the moisture in the crops. But these seldom do very serious damage in Minnesota. Some parts of Kansas suffer more from them. When rain falls in summer, it is usually in the form of showers, more or less local in character. The three days' northeastern rain is all but unknown in this country. The newspaper reports convey an exaggerated impression of the frequency of cyclones in the west. It is true, doubtless, that several of these may occur in a season in all the west, but think of the immense size of the country. Since my lot has been cast in this state, there has only been one cyclone of a very serious character; that is to say, one in the space of two years.

In autumn the weather is usually dry. Rain seldom gives much trouble in harvest. The grain may usually stand for weeks in the harvest without taking serious damage, but the want of moisture in the autumn is hurtful to pastures. But supplemental soiling crops may be easily grown, and to any extent desired. Because of the dry weather in autumn, not a few of the farmers have fallen into careless methods of storing their crops

but the autumn weather is very favorable to the pursuit of farm work. The plowing, which is usually done in the fall, can go on uninterrupted until the ground is frozen by the advent of winter.

In winter the temperatures are low, but the weather is usually bright—in fact, delightfully so. Disagreeable winds blow sometimes, but usually the weather is bright and clear, and much of the time it is not windy, at least not disagreeably so. The winters of this state are singularly favorable to sheep husbandry, they are so filled with sunshine. The snowfall is usually not heavy, and where the snow does fall it is so light that it drifts easily. There are blizzards sometimes, but the idea of these is exaggerated in the minds of people living to the east. Since I came west there has not been one blizzard in Minnesota, in the true sense of the term. There have been cold, driving storms, which it would be imprudent to face in the sense of attempting to journey while they were raging; but there has not been one blizzard during the two years which has proved fatal to human life, so far as known to the writer. But sometimes they do happen. During December and January the temperatures are decidedly low, but to one in warm clothing, and in the presence of friendly sunshine, the cold seems even less annoying than in Ontario.

The climate of the Northwest is very healthy. The air, during at least nine months in the year, is decidedly bracing, and during the period of hot weather the nights are usually comfortable. But many of the days are decidedly warm in summer. The fresh, bracing air fills one with life and energy. Such diseases as fever and ague are unknown in this western country, and this is all the more remarkable when we remember that Minnesota is filled with basins which hold water and have no outlet. There are no fewer than 7,000 lakes in this state, and many of them have no visible outlet. No better evidence could be furnished of the uncommon salubrity of the climate. Its sudden changes are probably its worst feature. These are, of course, the result of distance from large bodies of water.

The partial lack of moisture in some seasons will be much less felt by the farmers in the future, as soon as they are able to introduce more varied crop production. Corn will grow abundantly anywhere in the state. It may not mature well up near the Canadian boundary, but it may there be grown in abundance

for fodder uses. When corn is well cared for, it will produce a good crop in almost any season. Potatoes grow singularly well in this state, and the same is true of mangels. Sorghum is also much at home in this favored country. When cultivation, therefore, becomes more varied, the variety of the crops grown will prove a safeguard against the vicissitudes of season. The season of 1894 was phenomenally dry. The oldest inhabitant never saw such a season. And yet, in 1894, I have in mind a crop of fodder corn that produced fairly well, although not a single shower fell on it during the entire term of its growth. Can a better illustration be furnished of the wonderful producing power of the soils of the prairie?

THOMAS SHAW.

University Experimental Farm,  
St. Anthony Park, Minn.



Answered by Prof. Thos. Shaw,  
St. Anthony Park, Minn.

### Sowing Grass Seeds.

Editor Farm Department, FARMING:

Subscriber, Waterdown: Will it answer to sow grasses other than timothy in the fall? How about sowing clovers at that season?

ANS.—Other grasses in addition to timothy may be sown in the fall, but when thus sown they should be early in the season. If not sown as early, for instance, as the middle of September, they do not become firmly rooted in the autumn; and if an open winter follows, with alternate freezing and thawing, they are apt to perish. Orchard grass and meadow fescue would probably be hardy enough to stand the winters, if sown early in the autumn. But with clovers it is always hazardous to sow them at such a time. There is no plan, probably, that will give better results than sowing the grasses named along with winter wheat when they are sown in the autumn.

### Renovating Lawns.

Editor Farm Department, FARMING:

H. H. D., Wheeling, Va.: Is there any way by which large lawns can be renovated without plowing and re-seeding them? Our lawn is getting filled with plantain, garlic, broom and sage grass. If sheep were used in renovating it, they would have to be confined. How could they be managed? The lawn is several acres in extent.

ANS.—Such a lawn may be renovated by pasturing it with sheep. The flock need not be large—in fact, it should not be. The sheep would, of course, have to be confined in movable hurdles. And of these the least noticeable would be made of netted or woven wire with iron posts at the corners. Some oil cake should be fed to the sheep when on the pasture, and, if need be, some additional green food grown for them. In the climate of Virginia, sorghum would answer best. In the fall or early spring, after the whole lawn has been gone over in the manner described, sow some grasses upon it, such as do well in your country, and these will crowd the weeds spoken of, until, for a time, at least, they will disappear. The lawn should be harrowed when the grass seeds are sown.

### Grasshoppers.

Editor Farm Department, FARMING:

Alma, Ont.: The grasshoppers were very troublesome last season in this part of the country, and also in other parts. Can anything be done now to reduce their numbers next season?

ANS.—Yes; very much can be done. The eggs of grasshoppers are now deposited, mainly in the stubble fields, and but a few inches below the surface of the ground. If the fields where they are found are plowed a short time before winter, the eggs will be brought to the surface and the cold will destroy them. The plowing should not be too deep. In sandy soils the eggs will also be buried in the pastures, and these also should be thus plowed. Several counties in Minnesota were troubled with grasshoppers last summer. Professor Otto Luger, of our station, backed by the legislature, had 400 hopper dozers made. These, in brief, are boxes on wheels which hold a preparation of kerosene, and are drawn by one horse. They are made on the plan of a dust pan, of tin, and sit on three runners. A fan is attached. They are drawn over the pastures. When the grasshoppers leap into the air, the fan blows them into the box. After they get the oil bath they never take more than one good leap, and then die. The hopper dozers are cheap. The crops in these counties were saved by their use. Prof. Luger claims that with his 400 machines he killed off an average of 800 to 1,200 bushels of grasshoppers every day.



Conducted by "DAIRYMAN."

### Jottings.

RAISE your calves right or veal them. Decide which you will do at the beginning, and act accordingly.

THE young heifer should be given good treatment, especially for a time before calving. It is very important that she be kept thrifty, if she is to make a good start towards being a valuable dairy animal.

THE study of the bacteriology of cheese making and curing offers a very attractive field to the bacteriologist. The trouble is that the farther he gets into it the broader the field becomes, and if he keeps on he not infrequently passes out of sight.

EVERY dairyman should have a Babcock milk tester, and test his individual cows. Find out what each cow will do, and if she is not profitable dispose of her. In these times of low prices, the farmer cannot afford to keep a poor cow.

THERE is always room at the top. The fancy butter market is never crowded, nor is it likely to be for a while. Those who make fancy butter, as a rule, do not rely on butter dealers for a market, but usually sell to some private customer, who guarantees a fixed price for a fancy article during the year, and expects to get it.

**STREAKED BUTTER.**—Streaked butter indicates a retention of the buttermilk. It may be prevented, says a writer, by adding a quart of water to every two gallons of cream after the granules of butter begin to appear, and before churning is completed. Washing the granulated butter in the churn with cold water several times after drawing off the buttermilk is also a cure. Streaks sometimes result from uneven mixing in of the salt. Re-working after the salt has dissolved will help this.

### Airing Fall Milk.

Many patrons of cheese factories feel that during the fall they may relax their efforts along the line of airing milk thoroughly as soon as it is taken from the cow. This part of the work of caring for milk is just as indispensable during October and November as during the earlier months. The animal heat should be taken out as soon as the milk is drawn from the cow. This can be done by thorough airing or dipping. If it is not done, these animal odors will become part of the milk and lend their peculiar characteristics to it.

During the fall the food that a cow gets gives a more or less foreign flavor to the milk. This can be largely taken out by thorough airing after milking.

### The Cheese Market.

This is a very difficult subject to write about. Many persons intimately connected with our cheese trade prophesied, early in the season, that, when the product of the first few months had gone forward, prices would go up, and that the early fall would see the patrons of our cheese factories receiving good figures for their product. But these prophecies have not been fulfilled. The prices offered at present for August goods are even lower than what June and July goods were sold for; and, though the market is a shade brighter during the past few days, there does not appear to be any indication that prices will advance very much higher than they are at present. The ruling prices in the markets just now range from  $7\frac{1}{4}$  to  $7\frac{1}{2}$  cents. These are very low figures, and, when the cost of manufacturing is deducted, the farmer receives a very small figure for his milk.

It scarcely appears necessary to give the cause of these low prices. Overproduction seems to explain it all. Last year the output of cheese all over the world was considerably increased. The old country dealers bought in

large quantities of this at high prices. During the winter prices began to wane. Holders held on, thinking that there would be a rise, and, consequently, a large share of last season's make was held over and put upon the market when this year's make was beginning to go forward. This had the effect of glutting the market. Besides, the holders of this old stock, who are the principal importers of our cheese, were loth to send over orders till their old goods were disposed of, so that the early make this season had to be sacrificed at low figures. It was felt by many that, when this old stock was disposed of, the prices for new goods would improve, but such has not been the case. In fact, they are not quite as good as they were when the old stock was on hand. This may be accounted for from the fact that there was considerable speculation going on with a view to the prices going up. As soon as the market failed to respond to these higher prices, speculation ceased, and the market receded to its normal condition.

It is difficult to forecast the future. But it may be that we have reached an era of low prices for cheese that may continue for a while. The year 1879 is often referred to as the shipper's season. During that year the prices for summer cheese fell as low as 5 cents. Speculators bought up the goods at these low figures and held them. In the fall, prices went up, so that they were able, in many cases, to double the money invested, and the late fall makes were sold as high as 13 cents at the factory.

The conditions that existed then do not seem to hold good this season, however. This is an age of cheap food products, especially cheap meats. Since 1879 Australia, New Zealand, and the Western States have gone into the fresh meat business, and are sending their products in large quantities into the British markets. The British consumer can now procure these meats at comparatively low prices. When he can do so, he will retrench along some other line. If he eats more meat, he will not eat so much cheese, and *vice versa*. Besides, it must be recognized that as the consumption of fresh meats increases among the working classes they will acquire a taste for them, and will be loth to give them up, even if they come a little higher than other foods. Consequently it may be that the cheese producer will have to be contented with a somewhat lower price for his goods than he has been in the habit of getting for some time past.

The effect of the low prices here will be to curtail the output. We have heard of a number of factories that closed operations at the end of August. Besides, many patrons of factories will withdraw their milk and make butter, or use it at home. The output being materially lessened in this way, dealers may begin to feel that the large stock expected is not to be had, and prices may advance considerably before September and October makes are ready for the market.

These extremely low prices must eventually have the effect of lessening the cost of production. If many farmers were barely making dairying pay when the prices were high, they will have to lessen the cost of production considerably in order to come out even at present prices. There is a profit in the cheese business for the farmer at present prices, but it can only be obtained by keeping the very best cows, and feeding and caring for them in the very best way.

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### Adulterated Cheese.

Not long ago the cheese trade of this country was startled by a statement which appeared in a London, England, evening paper "that considerable cheese from Canada is really made from separated milk fattened with oleomargarine, which is very difficult to detect." This wholly unwarranted statement has met with an emphatic denial by persons at home and abroad who are intimately connected with our cheese trade, and recently the *North British Agriculturist* has withdrawn the statement by stating that it had been totally misinformed, and that the item in reality referred to some cheese from the United States that in some way was reported to be Canadian.

Though Canadian dairymen had not much to fear from such a false statement, yet it will be a relief to know that the report is utterly without foundation. It was, indeed, startling just at this juncture, when the price of cheese is ruling so low, to have a statement that would lessen the value of our cheese in the minds of the British consumer going the rounds of the press.

Ignorance of our conditions and the rigidity of our laws against spurious dairy products must be pleaded as the reason why such an item should be given space. It is well known that our laws forbid the manufacture of oleomargarine or the mixture thereof in any shape or form. The penalty attached to such an offence is of the severest kind. Besides, *oleo*

is not allowed to be imported into the country. Very little, if any, skim milk cheese is made in Canada, and what there is is sold or used locally, and not exported.

It is well that the high reputation which Canada has for honest dairy products is so well established in Great Britain, or her cheese trade might have suffered an almost irreparable loss by the publishing of such a statement. Canadian dairymen have acquired this reputation in the past by honest and persistent effort, and the watchword is still, "Honesty is the best policy." May it continue to be so, not only in reference to our dairy products, but in reference to every other article manufactured inside our borders!

The question of spurious dairy products was settled long ago by the Canadian dairymen. What is of vital importance to them at this juncture is the keeping up and improving the quality of her cheese and butter. The competitors of the Canadian dairymen seem to be increasing in number; hence the importance of manufacturing an article of cheese and butter that will be second to none in the market. Though the quality of our cheese is recognized to be good, yet there is room for improvement in many factories along the line of making a more uniform article. This will apply to butter also.

### Dairy Products at the Industrial.

We had the privilege of examining some of the cheese and butter while visiting the Industrial Fair last week. There were over five hundred boxes of cheese and a large quantity of butter on exhibition. If the quality were judged from outside appearances alone, it might be considered very fine, as the general appearance of the whole exhibit was commendable. But on closer examination with the cheese and butter trier, the quality of some of the lots was found to be not perfect. The judges stated that the quality of both the butter and cheese was on the whole not equal to other years. Both the cheese and butter seemed to be lacking in flavor. The other points of quality, such as texture, grain, etc., were considered to be good. The inferiority in regard to flavor is claimed to be largely due to the peculiar season, which has not been the best for making a fine article of cheese and butter.

There were cheese on exhibition from Quebec, Manitoba, and all parts of Ontario; the exhibit being, therefore, a fair representation of the cheese industry of Canada.

### A Fine Dairy Herd.

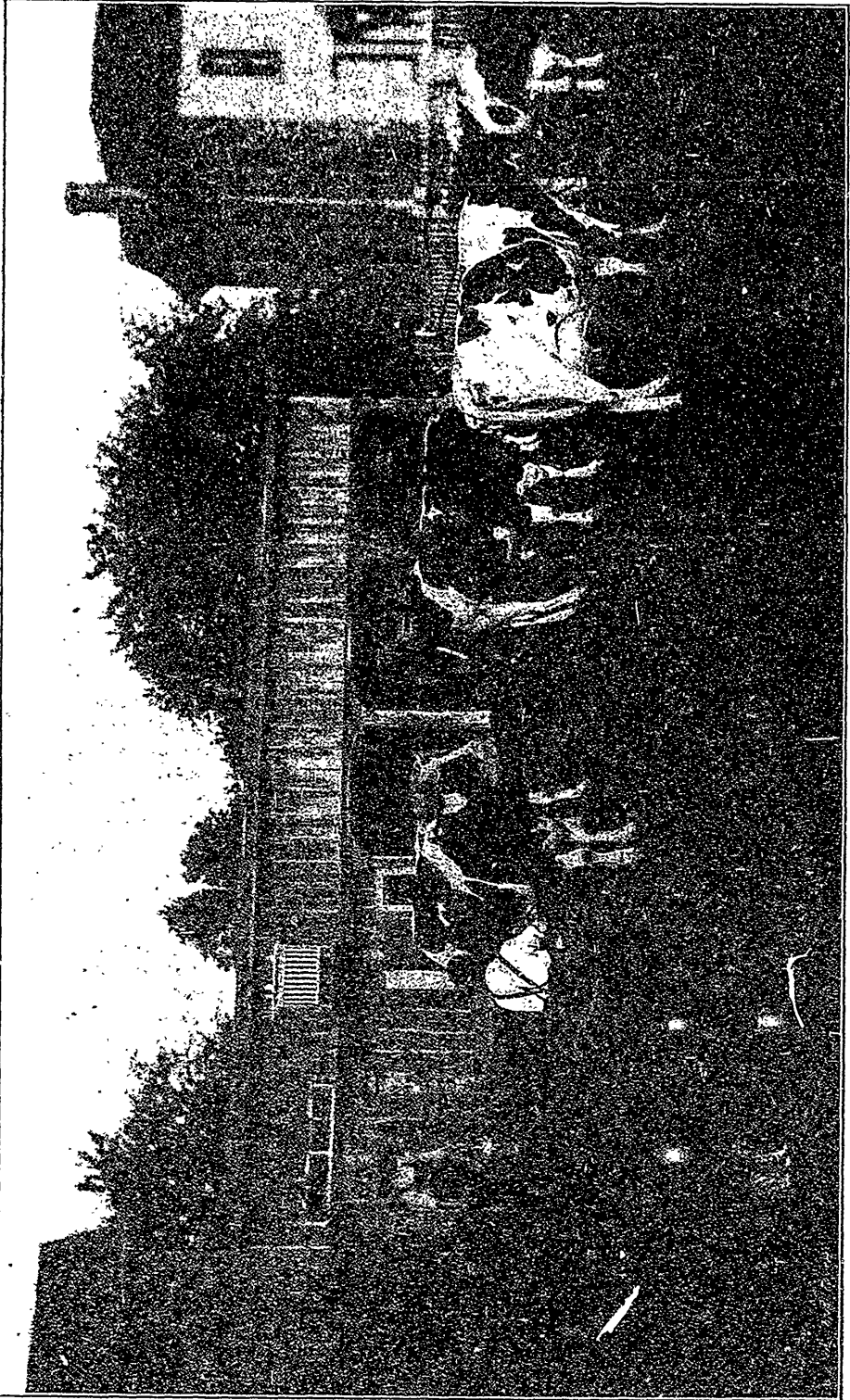
Our illustration gives a view of a portion of the fine dairy herd of Holstein-Friesian cattle owned by Messrs. Ellis Bros., Deer Park, near Toronto. The cows of the herd, of which fuller particulars will be found in our Special Stock Reviews for this month, have been carefully selected for business capabilities, and their products are sold in the neighboring city of Toronto. Not only are the cows good performers at the pail, but they also hold their own well in the show ring, and Messrs. Ellis are justly proud of their achievements in both lines.

### Fixing the Price of Butter in Copenhagen.

The variations in quotations made by different manufacturers of butter in Denmark led to a combination between a large number of the manufacturers, and resulted in the appointment of a committee of eight members who meet at Copenhagen every Thursday and fix the wholesale price for the ensuing week. Their quotations are official, and on their figures the whole trade in Denmark depends, and not only that, but the prices paid to the patrons who furnish milk to the various factories are governed by the butter quotations made by this butter committee at Copenhagen. Most of the milk is bought upon the basis of the price of a pound of butter for so many pounds of milk, ranging about twenty-five pounds. In this way there is practically a uniform price established for milk furnished to the creameries all over the country.

This committee does not act as a board of trade, excepting on the basis that the product for the week is furnished by different creameries, and the sales that have been made giving to a certain extent an idea of the amount of stock on hand and likely to be ready for the next week's shipments. The practice of shipping every week, as in the Elgin district, is held to be the only way to handle the product, and in that way the consumer gets his goods practically fresh and in the very best possible condition for consumption.

The members of this committee are all connected with practical operating creameries, and the result is that prices are kept very uniform and at the best possible figure for the patrons of the factory of which the butter was to be sold in the markets to which it was shipped.—*Dairy Report.*



**SOME FINE HOLSTEIN-FRIESIAN COWS**  
The property of Messrs. Ellis Bros., Deer Park, Ontario.

### Preventing Mites in Cheese.

Prof. Segelcke, of the Danish State Agricultural Councillors, gives the following method for preventing mites in cheese: The ceiling, walls, floor, and shelving of the curing-room are whitewashed several times until the mites are destroyed. The cheese is first placed in a brine bath for twenty-four hours, and then in the curing-room for fourteen days, during which time it is wiped off daily. After fourteen days it is thoroughly scraped and washed in lime-water, placed on shelves and kept clean; if a layer of slimy mould should again appear, the cheese must again be scraped and washed with lime.

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### A New Method of Examining Butter.

C. Killing, of Germany, has devised what he claims to be an easy method for the examination of butter mixed with foreign fats. The method is based on the determination of the viscosity of butter, for which a special apparatus has been invented.

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### Cleanliness in Milking.

A German scientist, in an address before a convention of co-operative creamery delegates of his country, stated that all the results of scientific investigation "are almost entirely ignored in milking." This ignoring, this scientist asserted, was due more largely to the disregard of cleanliness than any other thing. This uncleanness, he stated, pervaded nearly every stage of milk, and resulted in an inferior product. He cited cases in parts of Bavaria where creameries decline strained milk, as it does not permit them to determine the degree of cleanliness exercised in the stables of patrons. This unstrained milk, the scientist told the convention, was cleaner and kept better than the carefully strained milk received at the average of creameries represented by the delegates. He stated that this condition was arrived at because of the strict enforcement of the rule forbidding straining, as it necessitated perfect cleanliness of stables, cows, and milkers, and this resulted in an untainted article, that in turn permitted the making of the highest grade of product when the milk was not consumed in its fluid state. One of the things this scientist protested against was the style of milking that permits the fluid to

come in contact with the hand, and cited with approval the Swiss method of milking with the bent thumb and first two fingers as a means of overcoming the objection. Another thing that he disapproved of and regarded in the light of a serious error was allowing milk to stand in the cleanest stable after milking, and the mistake was intensified if it was cooled there. According to the dictum of this scientist, neither cows, milkers, nor stables can be too clean, if the highest quality of products is desired, and the man that gets closest to these things is the most progressive.

Absolute cleanliness in handling and caring for milk is a necessity. The majority of dairymen do not fully realize this. Our German friend's statements on the subject are very pertinent. To forbid straining of milk in order to detect the amount of cleanliness practised by milkers is a new idea. It is true, however, that if perfect cleanliness were strictly observed by those doing the milking and who look after the milk, there would be no need to strain it before sending it to a cheese factory or creamery.

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### Brining Butter.

This is a point on which many people differ. It is difficult to lay down a hard and fast rule, says an ex-dairy teacher in *London Dairy*, as to the strength of the brine. In its use a dairymaid ought to make the brine of the strength best calculated to suit the market to which she sends the butter. Should only a very slightly salted butter be required, as for the London market, one pound of good salt to a gallon of water, left on the butter for about ten minutes, will be sufficient; enough brine should be used to cover the grains thoroughly.

As a general rule, a little less brine than the quantity of cream put in the churn should be used. If a more fully salted butter be desired, the amount of salt to the gallon should be increased and allowed to remain a longer time on the grains of butter—say, twenty minutes to half an hour. I certainly consider salting by means of brine the best method if carried out with judgment.

I find there are many who have tried brine and given it up because they fail to get the butter sufficiently salt; and on inquiry I generally find the butter is churned into lumps before brining. Done in this way it is useless, as it would be hours before the salt had penetrated to the centre of each lump, while the exterior would be too salt, that failing to effect



that uniformity which should be the aim and object of all good litter makers.

On the other hand, if the grains are no larger than wheat at the time of brining, the salt will quickly penetrate, distributing it far more evenly than by dry salting, and also, in my opinion, improving the color, flavor, and texture. Should the dairymaid be churning daily, and desire to be economical, she can with safety, if the brine be clear when drawn off, use it again for her next lot of butter—of course adding a little salt to make up for that incorporated in the previous day's butter.

It is important that only a pure dairy salt should be used in preparing the brine, and that the water used should be pure.

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### How to Milk the Cow.

To milk the cow intelligently, a man must do so from the side of the question that has to do with the animal as a mother. To milk the cow is to usurp the place of the calf and secure for commercial purposes the liquid called milk that nature provides for the offspring. This operation, then, becomes a method of treaty with the cow, and the inducement for her to continue the supply of milk, and even prolong it beyond the time set by nature. The operator should so proceed that the milking is a pleasure to the cow, and one in which she realizes, as nearly as possible, the emotions of pleasure that she exhibits when the calf draws the milk in nature's way. The best milker is the man who establishes a sort of sympathy with the cow, and bestows a form of caressing that appeals to her in turn to bestow, in her way, a form of bovine affection. If the milking is a quiet, painless manipulation of the udder, and a soothing sensation follows the relieving of the glands in connection with it, nature pours out its abundance alike to calf and man, and the cow is well milked.

It is now pretty well settled that milking is a result of nerve force, and that all the nerve energy expended in other directions than the elaboration of milk causes a proportionate loss of milk, and the worried and fretted cow gives less and even inferior milk to what she would give if she had quiet and restful conditions. Thus, the milking should never be of a character that irritates the cow, or distracts her attention from the fact of milking; the milker should, with quiet movement and assuring way, take his place at the side of the cow, and, after a preliminary handling of

the udder, take firm and square hold of the teats, without tugging or jerking, and, with a gentle pressure, draw the milk. The plan of milking out all the milk of the quarter before changing over is not a good one. The four quarters should be as nearly even as possible—a sort of round and round movement—until the udder is emptied. The operation should close with milking round twice with the other hand. The gentle handling of the udder stimulates the nerve glands to renewed action in milk secretion; and it is in this way that one gets still a little more milk. It is this that helps to prolong the milking season, a fact that is emphasized by the poor milkings and faulty milking out of the strippings, by the indifferent owner or help, which results in the early drying off of the cow, and puts her, often unjustly, in the non-paying class of cows.

Cows, of course, should be milked at regular intervals and in regular order. While milking, the cow-shed should not be a place of strange noises, or of strange people, and one person should, at each time, milk the same cows, only on extraordinary occasions milkers being changed or new ones substituted. The individuality and heredity of men are not more marked than in what are known as dairy animals. He who deals with men has not greater need of mastering the peculiarities of those with whom he is brought in contact than those who have a herd of cows to care for, the perfect care and handling of which constitute what is called advanced dairying. The dairyman who recognizes these peculiarities in his herd best ministers to these notions and whims, and turns each and all of them to profitable account. In no place is greater judgment to be used than when man, cow, and pail are brought into contact.—*London Dairyman*.

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### New Way of Testing Milk.

Here is one way of testing milk, which will not come into general practice. This one is called the *Nahm* milk test, and is described in the *Milch Zeitung*. "In this method, which is said to be new, 100 cubic centimetres (nearly four ounces) of milk are boiled for twenty-five minutes with a mixture composed of four and a half parts of potassium hydrate, fifty-six parts of alcohol, fifteen and a half parts of amyl alcohol (fusel oil), and twenty-four parts of thirty per cent. ammonia, and the fat separated read off on a scale. The construction of the tubes is somewhat peculiar.

The bottom of the bulb is a rubber cap, which is compressed to raise the fat up into the neck, where it is read off. When the column is adjusted, a cock, at the top of the tube, is closed to hold it in place. The scale reads to hundredths, and gives the percentage of fat directly. The tubes are heated in a water-bath and shaken every five minutes. It is said that eight tests can be made in an hour and a quarter. In all comparisons with chemical analysis the largest difference was .055 on a sample with 1.5 per cent. of fat, and the average difference was .012 per cent."—*British Dairy World*.

### Relative Value of a Cow for Cheese and Butter Making.

In a bulletin issued by the Vermont Experiment Station, the results of some tests in comparing the Jerseys, Ayrshires, and Holsteins, as to their merits as cheese and butter cows, are given, as follows:

The different cows in the station herd show great variations in the quality of their milk; they include the Jersey, which is claimed by its friends to be the breed pre-eminent for butter; the Ayrshire, that has been always claimed to be the best cheese cow known; and the Holstein, that is put forward by its friends as the general purpose cow, good for both butter and cheese.

Let us study the records of the best cows of each of these breeds in the station herd, and see what the comparative results would have been had the milk of each been made into cheese instead of butter.

Breed.	Milk for One Year.	Per cent. of Total Solids.	Per cent. of Fat.	Lbs. of Solids.	Lbs. of Fat.
	Lbs.				
Jersey	7,130	15.01	5.39	1,070	384
Ayrshire	8,055	12.81	3.90	1,025	314
Holstein	9,810	12.55	3.60	1,230	353

According to the best light now attainable from Dr. Van Slyke's results, 100 pounds of the Jersey milk containing 15.01 per cent. total solids, and 5.39 per cent. of fat, would make 14.01 pounds of green cheese, while the Ayrshire milk, with 12.81 per cent. solids, and 3.90 per cent. of fat, would make 10.47 pounds of green cheese, and the Holstein milk, with 12.55 per cent. solids and 3.60 per cent. fat, would make 9.70 pounds of cheese to each 100 pounds of milk. If 100 pounds of butter fat is considered as making 110 pounds of butter, the three milks would make

5.93, 4.29, and 3.96 pounds of butter, respectively, from each 100 pounds of milk.

Breed.	Milk for One Year. Lbs.	Product from each 100 lbs. of Milk.		Total product from the Milk.	
		Cheese Lbs.	Butter Lbs.	Cheese Lbs.	Butter Lbs.
Jersey	7,130	14.01	5.93	998	422
Ayrshire	8,055	10.47	4.29	843	345
Holstein	9,810	9.70	3.96	952	388

If two and a half pounds of cheese are considered to be equal in market value to one pound of butter, which are fair average market conditions, then for every \$100 obtained from the Jersey milk made into butter there would be received \$95 if the milk had been made into cheese. In the case of the Ayrshire milk, the relation would be as 100 to 97, while the Holstein milk would give \$98 worth of cheese for each \$100 worth of butter.

It will thus be seen that the thinner Holstein milk is a little better adapted to cheesemaking than the richer Jersey milk, but the differences are not large. The most important fact brought out by the comparison is that *they are all good for butter and all good for cheese*.

But if that is true for these cows, it is true for nearly all cows, since the range of composition here includes the great bulk of dairy cows. The logical conclusion, then, is that the so-called "cheese-cow," *i.e.*, the cow which is good especially for cheese rather than for butter, does not exist, and that wherever a cow is found that is good for cheesemaking purposes the milk of that cow is equally good for the manufacture of butter.

### One Day's Testing of Cows Valueless.

The World's Fair dairy tests held at Chicago have demonstrated, beyond possibility of question, the absolute unreliability of a test by churn or oil test for one single day as an evidence of the capacity of the cow for, say, a week or a month. The data obtained in these tests clearly show that a cow which was making an average of two pounds per day, without the slightest evidence of any cause therefor, will make as high as 2½ to 2¾ lbs., and sometimes close to 3 lbs., in twenty-four hours. There is no apparent reason why such should be the case, but there are always causes for results in dairy cows. It may be the forerunner of some sickness, something that has excited the cow, which causes the

butter fat to be abnormally great upon that particular day; it may be a sudden change in feed which disturbs her, and, while such change may not prove beneficial, the result of it is that for that particular twenty-four hours it does not decrease the flow of milk, but, being a disturbing element, increases the fat in the milk.

It was very noticeable that when a cow was shipped by express to the barn, and was tested the day following her reaching there, she almost invariably gave a larger percentage of fat than at any time subsequent. The question that arises is, How far are tests that have been conducted at fairs throughout the country of any value as a criterion of the butter capacity of the cows? Cows are at times shipped some considerable distance, and are tested the next day, and, if not tested on that day, then within a few days after arrival. All the time the cows are subjected to excitement and other disturbing causes, which would certainly have a tendency to the production of an excess amount of fat in the milk, as compared with their normal condition. For these reasons it is claimed that a one day's test of a cow is practically valueless as a basis for judging her capacity for any more lengthened period, and the facts of the World's Fair dairy tests bear this out.

### Does Lightning Sour Milk?

It is a well-known fact that milk is especially apt to sour during the prevalence of a thunderstorm, and from this it has been surmised that the electric discharge held some mysterious sway over the lacteal fluid. An Italian experimenter, one Professor G. Tolomei, has been making trials of various sorts, the object being to throw some light on electric influence over milk molecules. In his first experience he passed an electric discharge from a Holtz machine between two balls of platinum hanging two inches apart in a bottle containing a quart of fresh milk; secondly, by sending a current between two strips of platinum at the bottom of a V-tube filled with the same fluid; thirdly, by subjecting milk in a test tube to the action of a strong battery current through a silk-covered copper wire wound spirally around the tube. In each one of these experiments, which were as thorough as any lover of science could wish, it was proved that acidulation of the milk was delayed instead of hastened, as had been ex-

pected. Three equal portions of milk from the same milking thus treated began to grow acid on the seventh, the ninth, and the sixth days respectively, while other portions of it which had not been treated with electricity were rankly acid on the evening of the third day. Having thus disproved the popular theory of lightning being the direct cause of the acidification of milk, Professor Tolomei tried ozone, and found therein the mystic agent of milk-souring. In his second trial of ozone he brought the surface of a quantity of milk close to the two balls of the machine used, and the fluid almost instantly became acid in consequence.—*The Dairy*.



### Cream for Churning.

Editor Dairy Department, FARMING:

Subscriber: How long should cream be kept between churnings?

ANS.—During the summer, cream should not be kept longer than a couple of days, but in winter it may be kept a day or two longer. If kept too long, the butter is apt to become bitter. It is better, if you have not enough cream to churn properly, to add a little skim-milk and then churn.

### A Question on Butter.

Editor Dairy Department, FARMING:

Enquirer: How long should butter stand after churning before it is packed or put up in prints?

ANS.—It is considered to be the better practice to pack or put butter away as soon after churning as possible. If well washed with brine before salting, it may be worked and packed at once, providing good salt is used. The butter will not be injured much if covered up and set away for three or four hours before working and packing.

### Yield of Butter from a Cow.

Editor Dairy Department, FARMING:

Producer: How much butter should a cow make during a year to be profitable?

ANS.—This will depend largely upon the price of butter. At present prices a cow should give at least 250 pounds of butter a year to be profitable. Many cows run over the 300 limit. A good profitable cow should give at least 5,000 pounds of milk during a year.



Conducted by E. J. McINTYRE, St. Catharines, Ontario.

What wonderful progress has been made within recent memory in the art of horticulture! Methods crude and toilsome, if not erroneous and unprofitable, have given way. Varieties of fruits and vegetables more luscious and wholesome than any of our predecessors could have imagined are now the commonest of their kind.

Men of science all over the world are investigating the conditions of life of plants and animals that form the care or the concern of the horticulturist. Their experiments and conclusions are within reach of all, while their work is in the highest degree practical and useful. Formerly, we were helpless before the ravages of insects and pests. If the season favored the spread of fungous growths or the multiplication of insect pests, we were unfortunate. If the weather were unfavorable to our enemies, we were fortunate. That was all that could be said or done.

Some near-sighted and unthinking men speak against higher education as being unpractical and useless. They see no good in children being taught a smattering of Latin, and algebra, and poetry, and similar ornamental superfluities. Reading, writing, and a little bookkeeping suffice, in their minds, for any ordinary man's education. But a little reflection will show that the cultivation of intelligence should be general, in order that scientific efforts should be appreciated; and scientific effort or research is impossible except on a basis of general intelligence. Where ignorance is, whether in the city or the country, there will be found unsanitary homes and unambitious lives, farm houses devoid of comforts, ill-kept orchards and gardens, if any at all. How is it that, while simple methods have been obtained of keeping in check almost every pest that troubles the farmer, many diseases and pests are still prosecuting their ravages undisturbed? The black knot alone has destroyed immense value in plum and cherry trees, and yet the black knot may be kept under control with the ut-

most ease. The efforts of science, even the most directly and noticeably profitable in money returns, cannot be appreciated by a community where intelligence is not generally diffused and education encouraged.

#### THE POTATO SCAB.

A simple illustration will show more clearly the practical results of such scientific work. Every potato grower is more or less annoyed year after year by uneven, scabby potatoes appearing abundantly in his crop. He cannot sell them readily at any price when the market is well stocked, whereas, no matter how plentiful the supply may be, he can always obtain good prices for large, clean skinned, smooth potatoes. Why is it that so many are covered with blotches and scabs? Can a crop be obtained of clear and smooth tubers? Is it all a matter of chance, of season, rain, drought, or what? This question has been investigated elaborately, and definite and reliable results have been obtained. I have before me the report on the potato scab of the North Dakota Experiment Station. It was at this station where methodical investigations and experiments on this subject were first instituted. In the New England stations, notably in that of Connecticut, similar experiments were prosecuted, and the results in all cases amply confirmed those obtained by the North Dakota professor. The results are substantially as follows:

- (1) The potato scab is due to the growth of a fungus.
- (2) If the potatoes planted are scabby, the crop will, under ordinary circumstances, be scabby upon any kind of soil, and the extent of scab in the crop will be proportionate to the seed.
- (3) If the seed tubers are free from the disease, and the soil is uncontaminated, the crop will be perfectly sound.
- (4) Smooth potatoes selected from a scabby lot are not to be considered free from the fungus.
- (5) The germs remain for a number of years in old potato ground.

(6) Barnyard manure may contain the fungus germs, especially where scabby potatoes have been fed to the stock.

(7) A weak solution of corrosive sublimate is a complete disinfectant of this fungus.

These results have each been determined by elaborate and conclusive experiments. Now follows the practical application :

(1) Select, if possible, clean land, that is, land which has not previously borne a scabby crop of potatoes, beets, or turnips.

(2) Select only the cleanest seed for planting.

(3) Avoid the use of barnyard manure on potatoes, if practicable.

(4) In any case, and especially if barnyard manure or scabby seed must be used, treat the seed with corrosive sublimate, as follows : Dissolve all the chemical needed in a few gallons of hot water. Prepare a large barrel or hogshead for the solution, and a loosely woven sack for the potatoes, which are to be previously washed free of dirt. Pour the hot water solution in the hogshead at the rate of  $2\frac{3}{4}$  oz. to 15 gallons of water. Dip the sack of potatoes in the mixture, and keep them immersed for  $1\frac{1}{2}$  hours ; then dry them quickly, and cut and plant as usual.

Corrosive sublimate costs ten or twelve cents an ounce. It is a poison, and must be handled with great care. Three ounces will be enough for five acres.

By following these directions, good, clear, healthy potatoes will be secured that will sell for five or ten cents a bag more than scabby ones. The main difficulty will be concerning the manuring of the crop. If a rich sod land is convenient, no manure will be needed, but potatoes require food as well as a human being requires potatoes, and the manure put on the land must be free from the germs ; or, better still, commercial fertilizers should be used. I think the latter course would pay well, especially in the vicinity of cities ; not only will the crop be larger, but better prices can always be obtained for potatoes when it is known that they have been treated with commercial fertilizers rather than with barnyard manure.

Thus a common annoyance and source of loss may be prevented in a simple and effective manner by following the directions of the scientific investigator. Hundreds of subjects involving similar prevention of loss or acquisition of profit are daily undergoing investigation. All over the whole field of horticulture and agriculture the man of science is helping with a willing and faithful hand.

## Here and There.

Potash is the food material that orchards are most likely in want of. Keep all ashes for the trees.

An orchard uncared for will surely be unprofitable.

Toads, frogs, and lizards are among the gardener's special friends. So are most lacewing insects, such as the dragon flies.

It is not well to plant a large block of trees of one variety of fruit. An intermixture of different varieties ensures fertilization of the blossoms.

Have the majority of your trees of the old, well-tried varieties.

Do not allow trees or bushes to carry any dead wood.

An orchard cannot be put out once for all. Trees will die, or lose their usefulness. Remove such promptly, and plant again in their place.

Plant those kinds and varieties of fruit that are adapted to your locality.

How a well-kept garden simplifies the perplexing problem of an attractive dining table !

With proper protection, peaches can be grown much farther north than the present peach belt.

Of perishable fruit, that grown near at hand is much to be preferred over that imported from abroad. Home-grown berries, peaches, plums, pears, and grapes retain their fresh, invigorating qualities. They are eaten when well ripened. Imported fruit of these kinds are liable to be half decayed or immature. Home-grown fruit is more tasteful and wholesome.

The pear tree is a greedy absorber of nutriment, and responds gratefully to liberal feeding. Give it an annual banquet of ashes and bone dust, bring it up in a cradle of crimson clover, and prepare for a bountiful reward.

The black rot of tomatoes is doing considerable damage this year. There is no effective remedy recommended so far. On examination, the rot has been found to be much like, some think identical with, the early blight of potato leaves. The early blight obtains lodgment only on dead tissues of the leaf, almost invariably from the puncture of the flea-beetle. There is probably some other decaying source beside the fungus at work on the tomato. Fortunately, some of the best varieties are comparatively free from the dis

ease. Next year care should be taken to plant only such varieties as are free from it.

Cane rust of raspberries can be prevented by spraying the canes once with a solution of blue vitriol before the buds open, and two or three times, after the leaves appear, with the Bordeaux mixture.

Tomatoes, it has been found by experiments, ripen sooner when exposed to electrical influences.

The better classes of soils receive a slight benefit in actual increase of nitrogen from having a clover crop plowed into them; the poorer classes receive a much greater; and all kinds of soils are improved in mechanical availability for succeeding crops.

Reports of trials of crimson clover from Michigan indicate that it is less hardy there than common red clover. It succeeds best on sandy soil and rolling land. Alternate freezing and thawing in early spring are liable to do it more injury than a cold winter.

In cultivating an orchard care should be taken that no part of the horses' harness injure the trees. Bridles without projections, narrow whiffle-trees, or, if possible, one common chain for the horses, leather loops rather than rings for the reins, collars and hames as low and close as possible, are the best for such work. A tree should be protected from injury in branch, trunk, and root.

The busy bee is an invaluable servant of the fruit-grower. Many varieties of fruit are utterly helpless to reproduce themselves without its help; and most flowering plants are to some extent dependent upon it. Consult the apiary department of FARMING.

Now is the time to cut out black knot from the plum and cherry trees. This fungus produces two crops of spores, one in winter, another in early summer. The winter dissemination of germs will be prevented. Burn all cuttings.

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### Fruit Crop of 1895.

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The fruit crop of 1895 in Ontario has been a comparative failure. In the spring the trees were plentifully covered with blossoms, and an abundant yield was promised; but several successive frosts in May all but ruined the fruit-grower's hopes. Apples, with irregular exceptions, are a light crop both in Ontario and in New York State. Peaches were almost a total failure. Plums were quite scarce. Pears

are more plentiful; but their appearance is somewhat spoiled by a rus-et band that encloses the blossom end of the fruit. This is the effect of the frost, which touched that end while it still pointed upward. The quality of the fruit is, however, not in any degree impaired. Grapes are more abundant than it was expected they would be, and are this year remarkably free from mildew. Early in the season the supply of small fruit was not equal to the demand, and good prices were realized.

The apple crop of England, and Europe generally, is reported to be the largest and best in many years. But this need not deter us from expecting a good price for ours; because the crop here is short, and because European apples are mostly earlier than our standard winter varieties, and are out of the market when ours are ready.

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### Setting Out an Orchard.

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It is said of the training of a child that it should begin at least a generation before the child is born. The training of a tree is quite analogous. It should begin at least a year before the tree is planted at all.

It is preferable to put the ground selected into some hoed crop the season before, in order that the soil may be made mellow for the trees. If there are any spots where the drainage is not naturally good, it is well to tile-drain them; if the subsoil is hard, it must be plowed deep and well. All lumpy soil must be broken fine, and it goes without saying that all weeds should be thoroughly eradicated. The location and mechanical condition of the ground must be satisfactory, or it is idle to plant an orchard. Much after-labor in cultivation is obviated, where cultivation among trees is difficult at the best, by care of the soil previous to the setting out of the orchard.

Then comes the question of the kinds and varieties to plant. I do not know a better course to follow in this matter than to consult a reliable nurseryman, who will know from the qualities of the soil and climate the sorts most likely to succeed.

If one is really intent on having a good, well-kept orchard, there is no farm, I think, but will, with proper care, grow some good variety or other of apple, pear, plum, or cherry, to say nothing of the berries and currants that are hardy everywhere; and I think, too, that the grape, peach, and apricot can, with a little special care, be made to bear in

places hitherto thought quite beyond their sphere. Only it is essential, and cannot be too strongly urged, that the soil must be thoroughly prepared for the new crop of trees.

There is but little fall-planting done. Because, I suppose, the trees can be looked after better in the nurseryman's cellars or rows than in open fields exposed to mice, rabbits, and to the unsettling and upheaving of the hard frosts of winter; but if the soil is well drained, and the ground in good condition, and if the trees are sturdy—and these things are only what they should be—there are many advantages in fall-planting. There is more time for the work, the trees get a better start in the spring, the weather is more favorable, and the nursery stock affords a better choice.

In any case, it is better to place your order with the nurseryman in the fall. It often happens that the stock of desirable varieties is sold out before spring.

The nursery catalogues will tell you at what distance apart trees should be planted. The planter must be careful to resist any temptation to plant the trees too close.

Plant the trees on a level, harrowed surface, in holes dug with the spade. The holes should be broad and deep, and the soil rather dry and crumbly. The trees should be set firmly, and the soil well worked into the roots and packed. Before setting the tree, any injured rootlets should be clipped off or cut neatly, and the branches should be trimmed, but not, by any means, wholly removed, even in the case of the peach.

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### Evaporators.

In a few days the evaporating of apples will be in full operation. There is but little of this work done by private persons; but every canning factory, as a rule, has an evaporating adjunct, and, as soon as the tomato season is over, the apples are attended to. It is customary for apple-growers to divide their produce into four classes: The first class, free from blemish and of good size, to be exported or kept for special orders; the second class, of good-sized but wormy or otherwise blemished apples; the third class, a grade slightly lower, with bruises allowed; and all the rest, apples for cider or stock. Class I. is sold for \$1 to \$1.25 a barrel, on the trees; class II., for 50 cents to 75 cents; class III., for about the same, hauled to the factory; class IV., unestimated.

Evaporated apples sell, on an average, at about 7 cents a pound, wholesale. From 5 to 7 pounds of evaporated fruit can be made from a bushel of apples. One can see, then, that in an ordinary season classes II. and III. can be made as valuable as class I. When one considers, too, that all the work necessary can be done at home, one cannot but be convinced of the utility of evaporating machines.

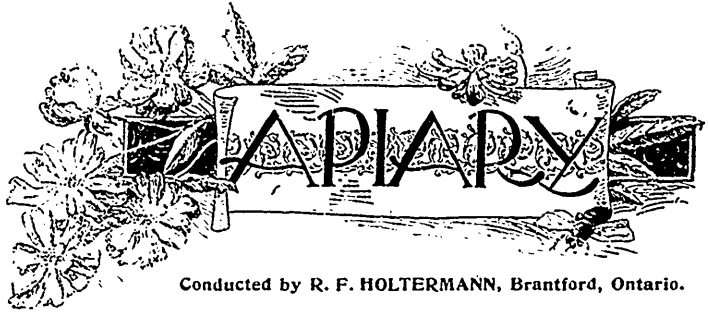
In factories the evaporators are operated by steam. The heating is done by steam pipes, and the output may be from 30 to 100 bushels a day. But each apple-grower can now have an evaporator of a size suited to his wants, and at a cost well within his means.

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### An Idea.

Recent successful experiments have been made on the Pennsylvania railroad for the extermination of weeds by the agency of electricity at high voltage. The idea has occurred to me that this method might be applied to the extermination of weeds in vineyards and orchards, and, indeed, on farms generally, more particularly the ragweed, thistle, and couch grass. The other evening, a friend of mine, who is an electrical engineer, and myself, worked out the following plan—at least, I told him the case, and he did the working out. Experiments on the Pennsylvania railroad show: first, weeds are easier to kill in the spring than in summer or fall; secondly, the pressure required to kill weeds varies from 10,000 volts in spring to 40,000 volts in September; thirdly, the grasses are the hardest to kill; fourthly, the weeds are burnt clear to the roots.

The problem for the engineer was, then, to construct a portable and practical apparatus for this purpose, and to estimate its cost, and the expense of running it. The apparatus should not weigh more than 1,500 pounds, and should be capable of producing a current at a potential of 20,000 volts. The details of my friend's report convinced me that the plan is a feasible one, and the cost of operating the apparatus is not high. Think of burning quack grass to the utmost root! Would not a weed-worried farmer be glad to employ the help of the "Exterminator" (shall I call it?) as he does that of the separator? The idea that I had in view in writing this article is that a constant demand for such a machine would arise in every township. Twenty acres a day could be gone over. Who will put \$1,000 into the venture? There is money in it.



Conducted by R. F. HOLTERMANN, Brantford, Ontario.

## Apiary Exhibits at the Industrial.

The honey exhibit at the Toronto Industrial Exhibition showed good evidence of the bad season that the past one has been for honey-making. While, however, the quantity was considerably less, there was some very choice honey shown, and the usual interest was shown in the exhibits by visitors. This year the management gave the honey exhibitors a building to themselves, which was much appreciated by them.

The following exhibitors were present: Goold, Shapley & Muir Co., Brantford; Geo. Laing, Milton; H. N. Hughes & Bros., Baine; R. H. Smith, St. Thomas; and J. W. Sparling, Bowmanville. The former firm, as usual, had a good average display of honey and beekeepers' appliances, while their competitors were not far behind. The Brantford company won first for the best 500 pounds of comb honey, for the best foundation for brood chamber, for the best new invention for beekeepers, for the largest and most tasty display, and for the best display calculated as a public educator. The other first prizes went about equally to R. H. Smith and J. W. Sparling. The prize for the exhibitor taking the largest number of first prizes was divided between the Brantford company and Messrs. Sparling and Smith.

## Where to Keep Comb Honey.

Multitudes of the toilers of the world who labor faithfully to secure a harvest, in their vocation in life, fail to receive the just reward of their labors, on account of not properly caring for their crop when it is within their own hands. Thus we find butter selling at half price after it is made, through carelessness and neglect between that and the marketing, eggs becoming stale after they have been produced, vegetables rotting in the cellar after they have been gathered, and honey depreciating in value after it is taken from the hive;

and so on throughout the varied lines of production. Would it not be better to spend more thought on how to care for the crop we have than to ransack the earth and rack our brains with the one object in view to produce the greatest possible amount? These thoughts have been brought up by receiving the following from a correspondent: "Why does honey ooze out of the comb after it is taken from the hive and stored away?" This is a question which is often asked, and one which has confronted every comb honey raiser, sooner or later. Some seem to suppose that the cause of this state of affairs is that the bees do not thoroughly ripen the honey before capping it. A little thought must show the fallacy of this, for, whether ripened or not, the honey can only ooze from the cells after being capped, on account of a larger bulk of liquid being in the cell afterwards than there was at the time the bees sealed the cell. This can come only from one source, which is always brought about by either cool, damp weather, or a non-circulation of air, or both. Honey only swells as it becomes damp, and the first that will be seen of that dampness will be in the unsealed cells, where the honey will have become so thin that it will stand out beyond the cells, or, in other words, the cells will be heaping full. If the dampness remains, the sealed honey will soon become transparent, while the honey from the unsealed cells will commence to run out, daubing everything below it, and eventually, if the cause is not removed, the cappings of the cells will burst, and the whole will become a sickening, sour mass. While in New York City I once saw several thousand pounds of such stuff, which was once as nice comb honey as could be procured, but it had become unsightly and spoiled by being stored in a damp, cool cellar. The cappings to the white combs were ruptured, with the honey oozing out of the cells, to such a degree that the nice white cases were all soaked with it, and which, with large puddles on the floor, gave off a sickening smell which, with the



unsightly appearance, caused one to think of honey as only something to be loathed. The commission merchant asked me what was the matter with the honey. I told him that the damp, cool cellar was what was the matter, but he could not believe it until I caused him to confess that the honey was all right before it was placed in that cellar six or eight weeks previous. When I first commenced keeping bees, I stored my honey in a tight room on the north side of the house, where it usually remained from four to six weeks before crating for market, and some of the first sections remained much longer than this. In crating this honey, I always found the centre and back side of the pile watery and transparent in appearance. As that which was stored first was always the worst, I thought that it must be owing to that being the poorest and least ripened honey, until one year I chanced to place this honey by itself in a warm, airy room, when, to my surprise, I found, upon crating it, that this first honey had kept perfectly, while the later, stored in the old room, was as watery as ever. This gave me the clue to the whole matter, so when I built my shop I located my honey room in the southwest corner of the building, and painted the south and west sides a dark color, to absorb the heat from the midday and afternoon sun. On two sides of this room I fixed a platform one foot from the floor, so arranged that the sections rested on the edges of strips  $1\frac{1}{2} \times 3$  inches, which were long enough to hold 28 sections. The sections were often piled on these strips until they were fifteen or twenty feet high and thirty wide, making a cube, as it were, containing from three to six thousand pounds of honey on either side, yet the whole was so piled that the air could circulate between each and every section. During the afternoons of August and September days, the temperature of this room would be raised to 100° and above, which would warm the pile of honey to nearly that degree of heat, and as this large body of honey, once heated, retained the same for a great length of time, the temperature in this room would be from 85° to 90° at six o'clock next morning, when it was as low as 40° to 60° outside. By this means the honey was being ripened each day, and that in the unsealed cells growing thicker and thicker, when by September 10th, or after being in the room from four to six weeks, the sections could be tipped over, or handled as carelessly as I pleased, without any honey running from the few unsealed cells which the

bees often leave around the edges of the section boxes. By having the doors and windows open on hot, windy days, so as to cause the air to circulate freely through the pile, I found that it took less time to thoroughly ripen the honey than it did where all was kept closed. In doing this, of course, it is necessary to have screens up so as to keep the flies and bees out of the honey room. If I wish to keep honey so late in the fall that the sun fails to keep the room sufficiently warm, or from cool, cloudy weather the temperature of the room falls below 80° for any length of time, I place an oil stove in it, and, by regulating the flame to suit the circumstances, a temperature of about 90° of heat is always maintained. In this way honey can always be kept in perfect condition for any length of time, and when sent to market it will stand much abuse before it will begin to ooze from the cells or sour. What we want to strive for most is, not to see how large a quantity of honey we can produce, no matter in what shape it reaches the consumer, but to see how good a quality we can secure, looking well at all times to the enticing shape in which it is put upon the market. This will help us much in establishing a staple market for our production, and earn ourselves a reputation which will sell our goods at an advance in price over a poorer article.

Borodino, N. Y. G. M. DOOLITTLE.

### Getting Bees into the Sections.

I have one colony of bees that seems determined not to go up into the super. They have the outside brood-frames full of honey, and all capped over, and all the rest the same excepting the lower half of each frame for about half the length; the upper half and down each end is honey all capped, and it seems to me that it is not giving the queen room enough to rear what brood she ought to be rearing. What shall I do?

AMATEUR.

ANSWER.—Put in the super a section containing comb, either empty, or, perhaps better still, with brood in it. Better put it near the centre of the super. Uncap some of the honey in the brood-frames, where you think the queen ought to lay.—*American Bee Journal*.

SWEET CLOVER has yielded honey unusually well this fall. Plenty of moisture is evidently what it requires.

# RECENT INVESTIGATIONS

Conducted by "ENQUIRER."

## Crimson Clover.

Bulletin 125 of the Michigan Experiment Station reports the results obtained by some forty farmers of that state from sowing crimson clover. As the climate of Michigan is somewhat similar to our own, the bulletin is not without interest. Not more than two of the trials reported were successful, while a few others were fairly satisfactory, though the past winter is reported as having been favorable to clover and winter wheat. The freezing and thawing during the spring seems to be fatal to the plant, and, though the clover came through the winter satisfactorily in many cases, it perished in the spring.

The report concludes as follows: "Crimson clover is apparently less hardy than common red clover, though there appears a difference of opinion on this point. Its success or failure, however, does not rest on that fact alone. Red clover is sown in the spring over most of this state, and has time to become well established before winter, while crimson clover, to succeed, must be sown in the fall or summer. A moderate development in autumn, probably two to three inches in most localities, seems most favorable to its passing the winter, though a smaller growth will winter safely when covered with snow. Plants, however, which are small in the fall do not attain a full development in our climate, but run rapidly to seed in the spring, with single or but few stalks. Judging mainly from the experience of the past season, it seems probable that over most of the lower peninsula of Michigan crimson clover will not prove to be a satisfactory crop; though for certain locations, particularly along the western part of the state, it seems worthy of further trial. Under ordinary circumstances, a smaller growth is to be expected here than in warmer climates."

This Michigan experience seems to agree very closely with the reports which come from all the states north of the great corn belt. In a few favored localities in our province it might be grown with more or less success, but it would be well for farmers to experiment very carefully with crimson clover. Our common red clover has the advantage of being a biennial, and, therefore, it may be

sown in the spring, thus allowing it to obtain a good foothold before going into the winter. Crimson clover, on the other hand, is an annual, and if sown in the spring it goes to seed and dies the same season, giving a very scanty crop. It, therefore, must be sown in the fall, just as winter wheat is sown in the fall, but it does not seem to possess the vitality of winter wheat.

## Time for Sowing Clover.

The same bulletin of the Michigan Experiment Station gives the results of sowing common red clover during every month of the year, the sowing being done during the last ten days of each month, and the seed applied at the rate of twelve pounds per acre. The only months which gave good results were February, March, April, and December. The best results were obtained from the March and April sowing, and there was a gradual falling off from that to June. All the clover which started before July was vigorous enough to winter safely. The later sowing did not germinate until the late rains came, and the plants were not strong enough to stand the winter. The December- and February-sown seed succeeded much better than that sown in January, a fact which is difficult to explain. The results support the general practice of sowing clover seed as early as possible in the spring.

## Alfalfa.

The following points regarding alfalfa, or lucerne, as given by A. A. Crozier, of Michigan, are worthy of notice:

- (1) It is especially adapted to withstand dry weather.
- (2) It has no serious insect or fungous enemies.
- (3) The seed costs no more than clover seed.
- (4) It starts in spring with more certainty and greater vigor than clover.
- (5) It is more particular than clover in regard to soil.
- (6) The soil should be deep, well drained, and naturally fertile, or fertilized at the time of seeding.

(7) The seed should be sown in the spring without any other crop, in the same manner as the ordinary spring grains.

(8) The field should be mown about the first of July, or when the alfalfa has about ceased growing, and before the weeds have ripened their seed.

(9) Each year thereafter, the alfalfa should be cut as often as it comes into blossom.

In connection with the above points, it may be noted that on soils particularly well adapted to growing alfalfa, it may be sown along with a grain crop just as common red clover is sown, especially when it is mixed with other clovers and grasses. In fact, in some rather light, dry soils, such as rich sandy, or gravelly loams, it is more difficult to kill alfalfa than it is to get it to grow. On heavier soils it requires more care, and it is utterly useless to sow it on land that is not thoroughly drained. The last point should be emphasized. If alfalfa is cut too late, it makes woody, indigestible hay.

### Experiments with Winter Wheat.

Bulletin 100 of the Ontario Agricultural College, by C. A. Zavitz, B.S.A., experimentalist, furnishes much valuable information regarding the tests of winter wheat which have been conducted by the institution. In addition to the tests of varieties, the bulletin deals with different dates of seeding, methods of seeding, different quantities of seed per acre, the yield and quality of wheat as affected by cutting at different stages of maturity, and the value of grain for seed as affected by cutting at different stages of maturity.

The value of the work in testing varieties is greatly increased by the system of co-operative experiments conducted by farmers in different parts of the province, since by this means the different varieties are tested upon a great many kinds of soil.

The conclusions, as given in the bulletin, are as follows:

(1) The average results of winter wheat grown on the experimental plots, for six years in succession, are as follows: Weight of grain per measured bushel, 60.6 lbs.; yield of straw per acre, 2.5 tons; and yield of grain per acre, 38.2 bushels.

(2) Dawson's Golden Chaff gave the largest average yield of grain per acre among fifty-three varieties of wheat grown at the Ontario Agricultural College for four years in succes-

sion; also among nine leading varieties tested over Ontario in 1894, and among eleven leading varieties tested over Ontario in 1893.

(3) The varieties which possessed the stiffest straw among fifty-three kinds of winter wheat, grown for four years in succession, were Dawson's Golden Chaff, American Bronze, Fultz, Velvet Chaff, and Red Russian.

(4) The varieties of winter wheat which proved the hardiest in 1895, among one hundred and two varieties tested, were Dawson's Golden Chaff, Stewart's Champion, Siberian, Jones' Square Head, Turkish Red, and McPherson.

(5) When winter wheat was sown later than September 9th, the crop was much poorer than when the seeding took place on or before that date.

(6) In 1895, the varieties of wheat possessing bald heads and white grain gave an average of 4.3 bushels of grain per acre more than the varieties possessing bearded heads and red grain, but in average weight per measured bushel the latter surpassed the former by 1.3 pounds.

### Valuing Fertilizers From Analyses.

R. C. Kedzie, in Bulletin 126 of the Michigan Experiment Station, gives rules for valuing a commercial fertilizer from its chemical analysis. The only substances taken into consideration are potash, phosphoric acid, and available nitrogen. The market value of these substances varies from year to year, but this season the value of nitrogen estimated as ammonia is 16 cents a pound; of available phosphoric acid, 8 cents a pound; of insoluble phosphoric acid, 2½ cents a pound; and potash is worth 6 cents a pound.

Since there are 20 times 100 pounds in a ton, if we multiply the value of one pound by 20, we find the value of one per cent. of any material in a ton. One per cent. means 20 pounds in a ton, and, if the material is worth 8 cents a pound, then each per cent. equals \$1.60 for a ton. Hence, to find the value of a fertilizer:

Multiply the per cent. of available phosphoric acid by.....	\$1.60
Multiply the per cent. of insoluble phosphoric acid by.....	.50
Multiply the per cent. of ammonia by.....	3.20
"    "    "    "    potash by.....	1.20

The sum of these products will give the market value of a ton of the fertilizers.



## FARMING

AN ILLUSTRATED MONTHLY MAGAZINE DEVOTED TO FARMING IN ALL ITS BRANCHES.

Succeeding *The Canadian Live Stock and Farm Journal*.

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Matter of any kind for publication must reach us by the 15th of the month preceding date of publication.

W. W. CHAPMAN, Representative for Great Britain and Ireland,  
 Fitzalan House, Arundel St., Strand, LONDON, ENG.

We are fully aware of the injustice and annoyance caused subscribers by the publishing of unreliable advertisements. We are also aware that good advertisers do not keep company with those of the "fake" class. Therefore, for the benefit of subscribers and advertisers, and, of course, of ourselves, we will take pains to exclude all advertisements of a doubtful nature. Any cases of fraud or misdealing on the part of advertisers that is reported to us will be promptly investigated. Subscribers will confer a favor, if, when writing to an advertiser, they will state that they saw the advertisement in **FARMING**.

"PEOPLE love to be humbugged." This was a saying of the great circus man, the late P. T. Barnum, and in a certain sense it may contain a great deal of truth. It is a fact, however, that people *do* appreciate honest methods, and they *do* recognize true merit. Nowhere is this more apparent than in magazine publishing. We have always had a great deal of faith in the policy adopted for **FARMING**, but we hardly expected that its first number would have met with such a warm reception. The September issue has met with nothing but compliments. Every one has had some praise for it, and from quarters where we least expected it there have come criticisms of the most favorable nature. This gives us much encouragement. We are now assured that our subscribers are in sympathy with our course, and we can proceed with more confidence than heretofore.

If there is any one in doubt as to whether he will receive one dollar's worth of pleasure and profit from the reading of twelve numbers of **FARMING**, let him pay thirty cents, and we will forward the magazine for three months. That should be considered a fair trial. If at the end of that time the subscriber finds that he has received no valuable information from it, or at least not thirty cents' worth, we shall be quite content to send it no longer. If, on the other hand, he is pleased with it, and would like to continue his subscription, he can do so by paying seventy cents for the remaining nine months of the year. Our agents are provided with blank forms for the accommodation of subscribers of this class.

## Special Stock Reviews.

### Bedford Park Holsteins.

Messrs. Ellis Bros., who are engaged in business in Toronto, also contrive to find time to oversee a particularly neat herd of Holstein cattle. The herd was originally bred up from purchases made from Messrs. Folger, of Kingston, to which choicely-bred cows and heifers have been added from time to time, until these gentlemen find themselves proprietors of a choice herd of goodly size.

On entering the stable, we were first presented to four handsome cows of large size whose choice, capacity udders betokened performers of no ordinary character. Nor was it merely outside show, for as the pails were filled that morning the scales gave evidence of business performances that would make a dairyman break the tenth commandment.

A careful record is kept of each cow's milk throughout the year, and, therefore, there is no guesswork at Bedford Park, and by referring to this we find that Clarabel Sjute, a four-year-old cow, has already given 8,333½ lbs. of milk during the first six months of this year, while she gave as much in July as in February. Last year, as a three year-old, she gave 10,950 lbs. in ten months. Clarabel Sjute was sired by Mink Mercedes Baron, and has been wonderfully successful in the show ring. She started off as 1st as a calf at Toronto; 1st as a yearling at Montreal, Toronto, and Ottawa; and 3rd as a two-year-old at the World's Fair, Chicago.

Standing next to her was Maud Tensen, whose showyard winnings have been at least equal to any cow in Canada, having won many prizes. She was sired by Duke of Edgely, while her dam is that celebrated cow, Cornelia Tensen, which has carried off so many winnings to the credit of the herd of Messrs. Smith Bros., Churchville, and has a record as a three-year-old of 428 lbs. of milk and 18 lbs. 12 oz. of butter, both in seven days.

Princess Lida, the third of the first-mentioned, is also four years old. She was bred by Mr. A. C. Hallman, and sired by his Netherland Statesman's Cornelias. She won 2nd as a yearling, 1st as a two-year-old, and 1st as a three-year-old, all at Toronto.

Rideau Gretque, another four-year old, is a cow of very large scale. She was sired by Jamaica Prince, whose dam, Jamaica, gave an average of 100 lbs. of milk in 21 consecutive days, and 98 lbs. in 31 consecutive days.

There are a number of other choice cows, all of which are giving grand milk yields, as the private dairy record will convince any who may take the trouble to look it up. Four yearling heifers are very promising, and look just now as if they would quite equal their illustrious dams. The bull in use is Sir Archibald Mascot, sired by Sir Archibald, dam, Lutska 3rd, all being of a capital milking strain.

There are a number of exceedingly promising young bulls, including two from the cow Rideau Gretque, among which there is quite a large choice, as the present year's crop is principally bulls.

## Western Fair.

When two prominent exhibitions are held at the same time, they are bound to militate against the success of one another to a certain extent. When London and Montreal elected to hold their exhibitions in the one week, ending September 21st, neither gained, and both lost, by the arrangement. However, with the weather on its good behavior, and a grand agricultural country to draw from, the Western Fair of 1895 may be handed down to history as a success.

### Horses.

As usual, at London, horses made quite a display, but there was a decided absence of many first-class animals in the heavy draught sections, while of the light-legged sorts there was a better representation.

**THOROUGHBREDS.**—These were not to be found in large numbers, yet some useful specimens had been forwarded. In the ring for aged stallions, George Hendrie, St. Marys, showed the black-brown horse, Temple, by Tremont, which is not only bred on speed-producing lines, but has size and handsome conformation to boot. L. Meredith, London, forwarded his imported bay horse, and J. Martin came 3rd with Ranelagh 2nd. In the mare and filly sections, Nelson Sage, Adam Beck, T. D. Hodgins, all of London, exhibited specimens, in the pedigrees of which the names of many past racing celebrities were prominent.

**CARRIAGE HORSES.**—This class was fairly well represented, but only a few of the aged stallions with any pretensions to fill the requirements of the day could be found among them. David Carrol, Westminster, had a good-looking black horse, by Mambrino Patchen, which had many good points. R. Smith, Ettrick, showed a bay three-year-old stallion colt by imported Falconer, and Charles Scott, White Oak, had a handsome brown bay, the same age, by the same horse, that looks well in harness. John C. McCarty, Newmarket, brought out a good two-year-old chestnut son of Firefly that had carried off winnings at Toronto. In mares and fillies, and geldings, T. Hardy Shore, Glanworth, carried off four prizes with a coaching mare by imported Sir John Stevenson, and three of her progeny of different ages. The first of these latter is a handsome bay filly by The Marquis (imp.); while a beautiful yearling, with capital conformation, and this year's foal, both by Fred. Row's Ambassador (imp.), a Yorkshire coacher, that won first in the three-year-old class at Toronto in 1892, look like making a matched team in the future.

**ROADSTERS** were well represented by full entries in all the sections, and the driving horses, both single and double, were an improvement on those shown last year.

**STANDARD-BRED TROTTERS.**—G. J. Fitzgerald, London, led off with his aged horse, Wisdom, by Mambrino King, dam Hamora, the dam of Phantasy, with a record of 2:16. Wisdom is a horse of good size and handsome conformation. In the same class E. Hanham, St. Marys, and H. James, Mitchell, had entries.

**HACKNEYS.**—A. G. Bowker, Woodstock, carried away what was offered in stallions with his two imported horses, The Shah, by Adonis, a black of neat cobby type, and Coker's Nelson, by Rattler 2nd. J. Holderness, Toronto, carried away 1st and 2d in Hackney mares with Cherry Ripe and Wild Foam (imp.).

**CLYDESDALES** were numerically weak, and many of the entries were but medium in merit. P. D. McCallum, Forest, gained a red with Craigievar, an imported son of Maclellan, and James Henderson carried off 2nd with Reform, a horse that frequently won in his younger days in the hands of John Duff, of Rockwood, his importer. S. McArthur, Oro Station, came out 1st in the three-year-old class with Grand National, by imp. Tannahill, and also carried away sweepstakes. John Oliver, Duncriff, had a neat two-year-old colt by the prize-winning horse, Wigton Lad, dam an imported Macgregor mare, which was awarded a 1st in his class. Andrew Scott had forwarded an imported mare by Macgregor, with foal by her side, which carried away the red ticket. J. W. Robertson, St. Marys, drove out a thick, useful pair, bred from a pair of imported mares, and he also had some likely youngsters in line, which had plenty of substance. Hider & Parkin, Oxford Centre, as usual, were on deck with some big ones which look like plenty of work in heavy harness. They had them in all ages.

### Cattle.

**SHORTHORNS.**—There has always been a great interest taken in the Shorthorn class at the Western Fair, and this year was no exception to the rule. From the time the first animal was led into the ring until the last one was judged the interest was kept up. Owing to other fairs going on at the same time, there was rather a smaller exhibit in this class, but the quality was very good. Among the number there were some extra good herds, and there was not a poor animal shown in any of the sections. The principal exhibitors were T. Russell, Exeter; R. & S. Nicholson, Sylvan; H. Gaunt & Sons, St. Helens; H. & W. Smith, Hay; George Dickie, Hyde Park, and others. In aged bulls there were three very good ones, and it took good judgment to know where to place the tickets.

The 1st was given to E. Gaunt & Sons for Earl of Moray, a grand, well-finished bull with a splendid front and a grand quarter. T. Douglas & Sons won 2nd with a large, smooth fellow, very even on top, with a good under line and a well-sprung rib. R. & S. Nicholson won 3rd with Norseman, a thick-fleshed fellow with lots of quality and substance. In two-year-olds there were only three shown. First went to H. & D. Smith for Abbotsford, a bull with a splendid front and very even top. He also took sweepstakes for best bull of any age. George Dickie, of Hyde Park, took 2nd with Red Jumbo, who was not in high fettle, yet showed some very good points. The 3rd went to E. Gaunt & Sons, of St. Helens, for a nice, even fellow with lots of size. The yearling class was small. The 1st went to George Dickie's Clinton Victor, a very growthy bull, with a grand, rich, mellow skin and well-sprung ribs. T. Douglas & Sons took 2nd with a very nice, even bull of nice quality. T. Russell took 3rd with a very neat animal. Bull calves were the strongest ring of any, there being twelve present, and not a poor one amongst them. T. Russell's General Havelock, a very large, smooth, well-built calf, came 1st; R. & S. Nicholson's calf, which some thought ought to have taken the red, 2nd; and 3rd went to H. Fairbairn's Wide Awake, a very nice, toppy fellow with lots of quality. There was a very weak ring of cows this year, there being only one in each class. T. Russell & Son took 1st and sweepstakes for aged cow and 1st for three-year-old cow, and also 1st for two-year-olds, 2nd and 3rd in this class going to Capt. T. Robson, Ilderton, for two very nice, thick heifers, although they were not in show trim. There were only five heifer calves shown, but they were good. R. & S. Nicholson were 1st with a beautiful rich red; Hugh Thompson, St. Marys, 2nd with a calf of extra fine finish; and H. Fairbairn 3rd with a very even calf of nice quality. The silver medal for the herd was won by T. Russell & Son.

**GRADE CATTLE.**—James Yule, Elder's Mills, was the principal exhibitor in this class, he having some animals that would have given the Shorthorn a hard rub, especially his aged cow, Lady, which is an exceedingly well-finished cow, large and very smooth, for which he took 1st. He also won 1st for two-year-old heifers and 1st for yearlings.

**HEREFORDS.**—The only exhibit of Herefords was that of the Stone Estate, Guelph, which brought out a number of fine animals.

**POLLED ANGUS.**—Walter Hall, Washington, was the principal exhibitor of this breed. In aged bulls he took 1st with a bull of very nice, even form, with a deep body; 1st on a yearling bull, also a good one of fair size and quality; the 2nd going to T. Maxwell, of Sarnia. Walter Hall took 1st and 2nd for cows and 1st and diploma for two-year-old heifers, all being of splendid quality and grand substance. His yearling heifers were also nice ones. He took 1st for a heifer calf, and also the silver medal for the herd.

**GALLOWAYS.**—Messrs. A. M. & R. Shaw, Brantford, were the only exhibitors of this class of cattle. They showed fifteen head, among which were some very fine animals. They were very good representatives of the breed, being very easy keepers, very low-set and blocky, making them very profitable to raise for beef.

**JERSEYS.** Several excellent herds were represented, being those of J. H. Smith & Son, Highfield; Humpidge & Laidlaw, London; Wm. Bacon, Orillia; John O'Brien, London, and a few exhibitors who brought out one or two animals. In aged bulls John O'Brien's was placed before J. H. Smith & Son's Hugo Alpha of Oaklawn and W. Bacon's Kaiser Fritz. There were just two bulls in the two-year-old class, and the honors were divided between J. H. Smith & Son and Humpidge & Laidlaw in the order named. Yearling bulls were a particularly good ring. Wm. Bacon carried away the red and blue, while Humpidge & Laidlaw were given 3rd. In bull calves 1st and 2nd were given to Humpidge & Laidlaw, and 3rd to Geo. Hill, Delaware. A neat ring of seven aged cows came forward, in which J. H. Smith & Son were declared 1st and 2nd on Signal Rosa May and Cantata of Oaklawn, while T. H. Smallman, London, came 3rd with a neat little cow which looked like business. The section for three-year-old cows brought out six useful-looking animals. J. H. Smith & Son scored another red, followed closely by two cows exhibited by Humpidge & Laidlaw, which took 2nd and 3rd. In two-year-olds, of the seven entering four were in milk. To Humpidge & Laidlaw were sent 1st and 2nd, and to John O'Brien 3rd. J. H. Smith & Son had the best two yearlings. In heifer calves Humpidge & Laidlaw and J. H. Smith & Son had the best of it, taking 1st and 2nd in the order named, while a neat entry of A. B. Smith, Arkona, was awarded 1st. J. H. Smith & Son's Signal Rosa May won the sweepstakes for females, and their two-year-old bull, King of Highfield, that for bulls, while the herd prize and that for the best five calves also went to them.

**AYRSHIRES.** The herds of James McCormack & Son, Rockton, and Kain Bros., Byron, were supplanted by fresh arrivals in the herds of Nichol Bros., Plattsville, and Michael Ballantyne, St. Marys. Three aged bulls appeared for inspection at the hands of Joseph Yuill, Carleton Place, whose duty it was to place the awards. James McCormack's Sir Laughlin, Kain Bros.' Cattle Douglas, and an aged entry of Nichol Bros., were assigned prizes in the above order, while

James McCormack brought out Jack Morton, the only one in the two-year-old section. Kain Bros. had the winning yearling, J. A. James 2nd, and Col. Peters 3rd; while in bull calves M. Ballantyne, Nichol Bros., and J. McCormack won an entry each in the order given. Nine aged cows formed by far the best ring that, as yet, had come forward. James McCormack & Son were awarded 1st with Primrose 3rd, and Kain Bros. Jeanie of Auchenbrain, a grand old cow, now thirteen years old, was placed 2nd, the latter 3rd, so winning 3rd. In a ring of three three-year-olds the judge found a 1st in Kain Bros.' Linda of Petite Côte, by imported Chiefstain of Barcheskie, while James McCormack & Son's Nellie of Rockton and Teena of Rockton were placed 2nd and 3rd. In the section for two-year-olds Kain Bros. scored another red, M. Ballantyne 2nd, and Nichol Bros. 3rd. Eight yearlings made up a nice ring, in which the honors were decided as in the previous section, while James McCormack & Son won sweepstakes on their bull, and also 1st for their herd.

**GUERNSEYS.**—This breed has only recently had a place in the prize lists here, but came forward in good numbers this season, there having been three good herds of this handsome dairy sort exhibited at London, that of W. H. & C. H. McNish, L. J.; J. A. James, Nilestown; and Isaac Holland, Culloden. In aged bulls Isaac Holland repeated his Toronto exploit by winning 1st on May Rosebery, the 2nd being sent to W. H. & C. H. McNish for Presto of Elm Grove. In two-year-olds, J. A. James' entry was put before Isaac Holland's Toronto winner, which was here placed 2nd. The only bull calf was shown by W. H. & C. H. McNish, who were awarded the red, the sweepstakes going to the two-year-old entry of J. A. James. In the section for cows over four years, J. A. James was given the red, and the entries of W. H. & C. H. McNish 2nd and 3rd; the prizes in the three-year-old section being similarly awarded. W. H. & C. H. McNish had the best of it in two-year-olds, while J. A. James scored another red on yearlings, the McNish herd carrying 2nd, and all that was offered in the heifer calf section. To J. A. James was awarded sweepstakes for the best female and the herd prize.

**HOLSTEINS.**—Holstein-Friesian breeders divided their forces at the conclusion of the Industrial, and the contingents from the herds of A. & G. Rice, Curries, and A. C. Hallman, New Dunlee, elected to come to London, the two herds making a good showing. In the section for aged bulls A. C. Hallman's Netherland Statesman's Cornelius and A. & G. Rice's Siepke 3rd's Mink Mercedes Baron won in the order named. In yearlings the same herds had one each, in which A. C. Hallman carried the 1st and Rice 2nd, while in bull calves Messrs. A. & G. Rice led, the 2nd and 3rd going to A. C. Hallman. There were four entries in aged cows, two from each of the foregoing herds. A. & G. Rice carried 1st with the handsome cow, Lady Dew Drop, and 3rd with Eunice Clay, while A. C. Hallman's Phoebe Zeeman was placed between them. In three-year-old cows A. & G. Rice showed Catholine 5th and Lady Pieterje, and A. C. Hallman Ideal's Netherland, the winnings being awarded in the order named. The two-year-old winners were all found in the herd from Curries, A. & G. Rice also winning the herd prize.

### Swine.

The Western Fair always has a thoroughly good turnout in swine, and this department at the late show was no exception to this rule, there not only being a large number of entries, but the quality was exceedingly good throughout the classes.

**BERKSHIRES.**—H. J. Davis, Woodstock, led in numbers, having twenty head of beautifully finished specimens of the different ages in his pens, and he succeeded in carrying away no less than three 1sts in the sections for boars, three 1sts for sows, besides a number of 2nd and 3rd prizes. T. A. Cox, Brantford, had a choice entry, comprising a round dozen of different ages. His aged boar, Bright Prince, by Enterprise (imp.), which he had brought out in nice breeding form, was placed 2nd, while a capital thick, useful pig, under six months, carried a like honor. The prize for boar and three sows, any age, was also awarded to T. A. Cox, and in aged sow and in the section under six months he scored a blue in either case, while he was awarded first for sow and fourth of her offspring, bred by exhibitor. D. A. Graham, Parkhill, had a good string of Berkshires of the proper type, but in several of the sections his pigs were too young for the class in which they had to compete, hence they did not show to advantage. His aged boar, Victor Chief, is a good one, with plenty of size, while a fourteen months' pig, by King Lee, is nicely proportioned, and has plenty of size for his age. In aged sows, he won 3rd prize, and 2nd on a particularly neat one under six months. The balance of the Berkshire exhibit was made up by Simmons & Quirie, Ivan, who had sold their best show pigs early in the season, while John Ackland, Delaware, and D. DeCourcy, Bornholm, contributed a few that won some of the prizes.

**YORKSHIRES.**—H. J. Davis, Woodstock, again carried the heavy end of the winnings. For boar over one year, and also for boar between six months and one year, he scored a couple of 1sts, and for boar and three sows he was awarded the winning card, while for sow between six months and one year he carried off a blue, and took a 1st and 3rd for sows under six months, together with the prize for sow and fourth of her offspring. The bulk of Jos. F. Atherton's herd had been sent

to Montreal, but in the few sent here he came 1st for boar under six months, and for breeding sow, and 2nd for sow under six months. Richard Gibson had forwarded some particularly neat, well-developed youngsters. In the section between six months and the year he scored a red with a handsome daughter of Holywell Thistle (imp.), by a son of 'Sultan (imp.) and carried away a like honor with a sow under six by Oak Lodge Diamond, out of a daughter of Holywell Thistle. A capital pair of boars under six months, and other sows, completed a select collection of pigs of the most approved type. John Ackland, Delaware, brought in a few good boars of different ages, and W. Goodger, Woodstock, also had some nice specimens upon exhibit.

**CHESTER WHITES.**—This was a capital class, showing plenty of size and nice, even quality. D. DeCoursey, Bornholm, had forwarded a choice lot of pigs of different ages, on which<sup>1</sup> carried away two 1sts for boars, including the section for aged boars and that under six months, also winning the 1st for boar and three sows; he carried away a 1st for sow under a year, and in the section under six months he was both 1st and 2nd, while the prize for sow and four of her offspring was also awarded to him. R. H. Harding, Thorndale, was second on his aged boar, Cleveland, while a son of Cleveland in the section between six months and one year placed a red to his credit. His aged sow, Bessie, came 1st in her section, while several young sows carried other honors to the herd. J. H. Clark, Calton, had forwarded a neat exhibit of Chesters, winning therewith several of the ribbons with well-developed specimens.

**POLAND-CHINAS.**—There was a smaller representation of this breed than usual at London, which fact may be accounted for by the bulk of W. & H. Jones' herd having been sent to Montreal. Fred. Row, representing the estate of the late Frank Row, exhibited two good boars between six months and one year, on which the red and blue tickets were placed, while a like honor was placed on two neat good ones from his pens under six months; he also showed some good sows of different ages. A contingent from W. & H. Jones' capital herd, consisting of one aged boar, two sows over the year, two sows between six months and the year, and two sows under six months, were well brought out, and carried 1st in each of the sections named, together with the prize for boar and three sows, and sow and four of her offspring.

**TAMWORTHS.**—There were five exhibitors of Tamworths at London, and although we missed the good herd of H. George & Sons, Crampton, the capital herds of Walter Elliott, Hamilton, and that of the estate of the late Frank Row, were supplemented by a fine lot of pigs of all ages forwarded by John C. Nichol, Hubrey, and a few entries each by J. H. Clark, Calton, and David Carrol, Ealing. Walter Elliott's Glen Sandy, certainly one of the best boars of the breed, was again awarded 1st. Fred. Row taking 2nd with a good deep-sided pig, and John C. Nichol 3rd on a good, lengthy pig, rather younger than either of those first mentioned. In the sections under the year, John C. Nichol had a capital lengthy pig, with good deep ribs and smooth, even finish, while Walter Elliott was given 2nd and 3rd. The honors for boar and three sows were awarded to Walter Elliott. There was a close fight for honors in the breeding sow section. Fred. Row had a capital specimen of the breed, to which the judge sent the red card; while a beautiful sow brought out by Walter Elliott was rather young for the section. In sows under the year, of ten good entries, prizes were awarded to John C. Nichol and Fred. Row in the above order; while Walter Elliott had the best sow under six months, in which section J. C. Nichol also had a capital 2nd and 3rd. To Walter Elliott was sent the prize for sow and four of her offspring.

**DUROC-JERSEYS.**—The only breed represented was that of Tape Bros., Ridgeway, which contained the same pigs shown at Toronto.

### Sheep.

The sheep department was well filled with a good representation of all the mutton breeds, as one might expect, situated as London is in the centre of one of the first sheep-breeding sections of the province.

**SHROPSHIRE.**—D. G. Hamner & Son, Mt. Vernon, were to the front with seventeen entries, with some splendid animals among the number which showed careful breeding. They combine size and good quality of wool. Although Canadian-bred, they compared very favorably with imported stock, judging from the number of premiums they won. They carried off all the flock prizes, and a large share of the other red tickets. James Cooper & Son, Kippen, Ont., had seventeen entries. Their sheep were very large and of excellent quality, just what is wanted at the present time—the demand being for large sheep with good quality of wool, and well covered on the head, and thick fleshed on the quarter. They won a good share of the prizes, taking 1st on their shearing ram, an extra good sheep for his age; 2nd on the Association prize for ram and four ewes; and 2nd on the Association prize for four lambs. Richard Gibson, Delaware, was well represented with thirteen entries, among which were some very useful sheep, especially his rams. His aged rams were very good, with excellent quality of wool, well covered over the head, showing good

breeding, and lots of size and good quality, one of which took 1st. He also took 1st on ram lambs. W. H. Beattie, Wilton Grove, had some very good sheep of excellent quality of wool; although they were not in very high condition, they showed very good points of the breed. He won some of the prizes. Win. Wright, Glanworth, had a number of good ones, showing careful breeding. This flock has always done well in the show ring.

**OXFORD DOWNS.**—Smith Evans, Gourrock, Ont., had some splendid specimens of this breed. We would draw special attention to the ewes, they being very large and well proportioned, with excellent quality of wool. He was very successful in the ring, carrying away all the flock prizes and most of the red tickets in the other sections. James Tolton, Walkerton, has a very useful flock of Oxfords, of which he showed seventeen head, among the number being some very choice ones, with plenty of size and quality, and good coats of wool. They won a number of prizes.

**SOUTH-DOWNS.**—There was a larger number of this breed than of any other, there being four full flocks shown, and there were some beauties among them—many of them looking as though they had been made in a mould, so neat were they. Among the principal exhibitors was T. C. Douglas, Galt, with seventeen entries, and he certainly had some beauties, especially in rams. He took first in all these sections, and also took all the flock prizes. R. L. Burgess, of Burgessville, showed fourteen, among which were some excellent sheep which won honors. A. Telfer & Sons, Paris, exhibited thirteen. Their ewes were of very nice quality, and were good enough to win a share of the prize money. George Baker, Simcoe, made fifteen entries. He had a flock that would be a credit to any one, showing very careful breeding. He also took quite a number of prizes, and his sheep were well worthy of it.

**LEICESTERS.**—There were rather a small number of this breed, but they were well up in quality, there being some magnificent sheep among them. James S. Smith, Maple Lodge, took the lion's share of prizes in this class, his sheep being very well fitted, and of excellent quality, with good size. E. Gaunt & Sons, St. Helens, also had some very good ones. They showed some very fine shearlings, taking 1st for pen of five. They also had a grand ram lamb, which took 1st, a large fellow, and very well woolled.

**LINCOLNS.**—Quite a number of entries turned out in this class, Wm. Oliver, Avonbank, being the largest exhibitor. His aged ram, which took 1st, was a very fine sheep, as were his ewes, for which he took 1st in two sections. Capt. T. Robson, Ilderton, had a number of good ones, although not fitted for show. They were large, with very good quality of wool. For pen of five shearlings, he took 1st, and also a number of other prizes. Gibson & Walker also showed a very fine shearing ram, for which they took 1st, and also 1st on ram lamb, an excellent one.

**COTSWOLDS.**—There were only two full flocks in this class exhibited, but they made it up in quality. The increase in price of wool is helping to make the long wools more popular at present. The principal exhibitors were T. Hardy Shore, Glanworth; Heber Rawlings & Sons, Ravenswood; George Weeks, Glanworth; Wm. Jackson, Wilton Grove. In aged ram, Wm. Jackson took 1st with a grand imported sheep, large and well built, with splendid quality of wool. H. Rawlings & Sons were 2nd with a very good all-round sheep. The 3rd went to T. H. Shore for a good sheep with a capital coat of wool. H. Rawlings & Sons took 1st and diploma on a good shearerling with lots of size, and very even on top. H. Shore was 2nd with a very lengthy, deep sheep. Messrs. Rawlings were 1st again with a very nice ram lamb; H. Shore taking 2nd and 3rd. H. Shore was 1st with a grand pair of aged ewes, showing lots of quality and well up in all points; the 2nd & 3rd to George Weeks for a very fine pair of even sheep, with good quality of wool; and 3rd to H. Rawlings. H. Shore had a rare good pair of shearing ewes, which took 1st. H. Rawlings & Sons had a very nice pair that took 2nd. H. Shore had a beautiful pair of ewe lambs with grand quality of wool, and he also carried away all the flock prizes.

**DORSET HORNS.**—R. H. Harding, Thorndale, and R. & S. Wood, London, were the leading exhibitors of this class of sheep, the former winning most of the first prizes.

### Poultry.

Too much credit cannot be given the directors of the Western Fair for the efficient manner in which they handled their poultry exhibit. Most of our readers are doubtless aware that this association was so unfortunate as to lose by fire their poultry and carriage buildings a few days before the opening of the display of poultry.

Immediately after the fire, the superintendent, Mr. J. H. Saunders, was despatched to Toronto to confer with Messrs. McNeil, Bogue, McCormick, and Oke, who were exhibiting at the Industrial. These gentlemen were members of the Poultry Committee; and after due consideration it was decided to put up a large tent and erect temporary coops. This was on Friday afternoon, and by Sunday afternoon all coops were in place and ready for the reception of the fowl. Too much praise cannot be given to Mr. Saunders for the hard work put in by him to make the display a success, and a success it was.

t certainly must have been with the deepest regret that he was compelled to look upon the destruction of the building, London is noted for the decoration of its poultry building, and this year Mr. Saunders had eclipsed all previous records, and the building was a continuous mass of flags, streamers, colored papers and flowers.

Had the fire occurred a few days later, the damage would have been enormous, as all stock would have been in place.

It is impossible for us to give a detailed account of the exhibit, as space will not permit. Suffice it to say that Minorcas, Rocks, Langshans, Leghorns, and Games were the strongest classes, the birds being of a very high quality.

On the closing day of the exhibition, Mr. J. H. Saunders was presented by the exhibitors with a handsome silver cake basket and silver tea service. "John" unquestionably deserved this, as no one felt the loss of the building more keenly than he, and none worked harder to make the poultry display a success. FARMING wishes long life and prosperity to the only "Jack."

### Toronto Industrial.

The sixteenth annual show, held under the auspices of the Industrial Exhibition Association of Toronto, may be set down as an unqualified success. After years of skillful management, it would be idle to expect large accessions to the yearly gate receipts; yet when we find that over \$2,000 more was paid than in any previous year by those who passed through the turnstiles, together with the fees for admission to the grand stand, the show of 1895 may be said to have surpassed the most sanguine expectations. Doubtless, the results would have been still more gratifying had not two important factors interfered with this year's results. Bad weather on Saturday and Monday, the two days set apart by business men as half holidays to visit the exhibition, naturally affected the receipts, while the unfortunate breakage that occurred in the city conduit during the first week of the fair doubtless kept away intending thousands from taking in this year's Industrial.

The liberal prizes offered in the classes for horses, cattle, sheep, and swine, together with those for poultry and all agricultural products, enabled exhibitors to prepare a better turnout in those departments. That stockmen appreciate the efforts of the management in this particular is evident by the largely increased number of entries, which we give below.

Our American friends who kindly acted as judges in several of the classes were lavish in their praise of the stock department, and expressed themselves astonished at the magnificent display made during the dull times from which some of the varieties are suffering. Such kind words show us that exhibitors have responded heartily to the efforts put forth by Manager Hill, while the visitors have shown by their increased attendance their full appreciation of the liberal bill of fare provided.

Underneath are given the number of entries for the last two years:

	1894.	1895.
Horses .....	875	869
Cattle.....	611	737
Sheep.....	442	447
Swine.....	397	437
Total.....	2325	2499

### Light Horses.

**THOROUGHBREDS.**—These are very properly assigned the place of honor in the prize lists of light-legged horses, and although the show of 1895 cannot be said to lay claim to any special star in the aged sections, yet several old-time show-yard celebrities, and one or two new horses, were forwarded that have much to commend them. In a ring of seven, which is supposed to be devoted to horses of strictly racing type, F. H. Hassard, Millbrook, brought out a fresh horse in Tyrone, a handsome son of Mortimer, to which the judges sent the red rosette. Old Woodburn, by King Alfonso, from the stalls of Brown & Gilkinson, Brampton, claimed second place, while W. J. Thompson's handsome old-time winner, King Bob, by King Pen, was third. In the section assigned to horses best calculated to produce hunters and saddle horses, Wiley Buckles, the handsome big bay that has so often carried winnings to the credit of Quinn Bros., Brampton, again led. Thos. Irving carried the red with St. James, by Downy Bird, and A. Frank & Sons, The Grange, a second in the section for three-year-olds. In the mares, fillies, and foals, Robt. Davies, Toronto, carried the winning colors through all the sections except for yearling fillies, in which section John Dymont, Orkney, won.

**Awards.**—Stallion, four years old and upwards—1st, T. H. Hassard, V.S., Millbrook (Tyrone); 2nd, Brown & Gilkinson, Brampton (Woodburn); 3rd, W. J. Thompson, Orkney (King Bob). Stallion, four years old, best calculated to produce hunters and saddle horses—1st, Quinn Bros., Brampton (Wiley Buckles); 2nd, Dr. J. F. Gallanough, Thornhill (Monotony); 3rd, T. Meagher, Toronto (Gamble D'O'r). Stallion, three years old—1st, T. Irving, Winchester (St. James); 2nd, A. Frank & Sons, The Grange (Briton). S.allion, two years old—1st and 2nd, J. Dymont, Orkney

(Disturbance 3rd, and Solid Silver 2nd). Yearling colt—1st, R. Davies, Toronto; 2nd, A. Frank & Sons (Terryfont); 3rd, J. Dymont (Highcourt). Stallion of any age—1st, H. Hassard, (Tyrone). Mare or gelding, four years old and upwards—1st, R. Davies (Thistle); 2nd, J. Dymont (Lucy Lightfoot); 3rd, G. Kennedy, Oakville (Addie B.). Filly, three years old—1st, R. Davies (Fair Flora); 2nd and 3rd, J. Dymont (Barbara and Cassie). Filly, two years old—1st, A. E. Dymont, Orkney (Terra Nova); 2nd, A. Davies (Music V.); 3rd, A. Frank & Son (Caledon Maid). Yearling filly—1st, R. Davies; 2nd, G. Kennedy (Tone K.); 3rd, J. Dymont (Reformation). Brood mare, with foal—1st, and 2nd, R. Davies (Brilliance and Andante); 3rd, A. Frank & Sons (Jenny Lind). Foal of 1895—1st and 2nd, R. Davies; 3rd, F. Webster, Toronto (Easter Boy). Mare, of any age—R. Davies (Thistle).

**Judges.**—J. C. Patteson, R. Pringle, Toronto; J. P. Dawes, Lachine, Que.

**ROADSTERS.**—Roadsters again led all classes in numbers, 157 having been entered under this heading. Some neat-going pairs and single drivers could be found among the harness sections. J. C. Dietrich, Galt, showed a handsome pair of chesnut geldings by his stallion Axland, that won the red in the class for horses over 15½ hands, and a handsome pair by General Jackson carried out the blue rosette to the honor of H. Cargill & Son, Carrell.

**Awards.**—Stallion, four years old and upwards—1st, G. W. Lang, St. Thomas; 2nd, J. McBride, Newtonbrook (Tony Wilkes); 3rd, J. Cherry, Toronto (Wilmot); 4th, H. Webb, Toronto (Reno McGregor). Stallion, three years old—1st, W. Huar, Myrtle (Victor Wilkes); 2nd, E. Taylor, Toronto (Abdallah); 3rd, J. J. & S. Kiscock, Oro Station (Regulator). Stallion, two years old—1st, Dr. C. H. Brereton, Bethany (Aurelian); 2nd, D. Dalton, Delhi (Charley Duval). Yearling colt—1st, J. B. Cowieson, Queensville (Victor). Stallion of any age—G. W. Lang, St. Thomas. Gelding or filly, three years old—1st, J. W. Paterson, Denfield; 2nd, J. Lawson, Brampton; 3rd, E. Dolson, Alloo; 4th, J. Talbot, Everton. Gelding or filly, two years old—1st, H. Cargill & Son, Cargill; 2nd, W. G. Rudd, Toronto; 3rd, J. Pier-on, Deerhurst; 4th, T. A. Crow, Toronto. Yearly gelding or filly—1st, H. G. Boag; 2nd, J. J. & S. Kiscock; 3rd, W. J. Harris, Woodbridge; 4th, A. Holmes, Beachville. Brood mare with foal—1st, D. Dalton; 2nd, W. Pears, Toronto Junction; 3rd, S. Dolson, Alloo; 4th, W. Sager, Troy. Foal of 1895—1st, J. B. Cowieson, Queensville; 2nd, J. Lawson; 3rd, H. N. Crossley, Rosseau; 4th, W. Sager. Fair matched horses, 16 hands and under—1st, J. C. Dietrich, Galt; 2nd, R. Hutton, Owen Sound; 3rd, J. S. Noble, Cooksville. Pair matched horses, 15½ hands and under—1st, D. Dalton; 2nd, H. Turnbull, Preston; 3rd, J. G. Martin, Stouffville; 4th, W. F. Wilson, Wilsonville; 5th, W. A. Robertson, Oakville. Single horse, 16 hands and under—1st, J. F. Eastwood, Toronto; 2nd, J. F. Orr, Meadowvale; 3rd, T. Bowes, Oakwood; 4th, E. W. Cox, Toronto; 5th, S. T. Clapp, Toronto. Single horse, 15 hands and under—1st, C. A. Burns, Toronto; 2nd, W. B. Moore, Lindsay; 3rd, J. D. Graham, Toronto; 4th, J. Haviland, Wilsonville; 5th, G. Martin, Stratford. Mare, of any age—H. G. Boag (Bella B.).

**Judges.**—J. Willoughby, Keswick; J. D. O'Neill, London; F. G. Hutton, Woodland.

**STANDARD-BRED TROTTERS.**—Forty-nine entries booked under this heading, in which could be found several horses of neat conformation. In a ring of ten aged horses, Graham Bros. showed the Deacon, by Bishop, a beautiful black horse, and H. Cargill & Son, Cargill, forwarded Tolleto, by Damo. **Awards.**—Stallion, four years old and upwards—1st, J. E. Marsh, Markdale (Antillo); 2nd, R. Leary, Ridgetown (Gold Ring); 3rd, D. Dalton, Delhi (Shadeland Duval). Stallion, three years old—1st, H. Webb, Toronto (Baron Brown); 2nd, G. Jackson & Son, Downsview (Sylvio); 3rd, R. F. Dygert, Hamburg (Trustwell). Stallion, two years old—1st, H. Smith, Claude (Bonnie Scott); 2nd, H. Webb (Bordeaux); 3rd, H. W. Lunley, Ridgetown (Henwell). Yearling colt—H. Smith (Bonnie Scott). Stallion, of any age—J. E. Marsh (Antillo). Gelding or filly, three years old—1st and 3rd, H. Webb; 2nd, H. Smith. Gelding or filly, two years old—1st and 3rd, H. Webb; 2nd, M. H. Nicholls, Hamilton. Yearly gelding or filly—1st, 2nd, and 3rd, H. Webb. Brood mare with foal—1st and 3rd, G. Jackson & Son; 2nd, H. Smith. Foal of 1895—1st, H. Smith; 2nd and 3rd, G. Jackson & Son. Pair matched horses—3rd, G. Jackson & Son. Single horse—1st, G. Jackson & Son. Mare, of any age—H. Webb (Alicia Bell).

**Judges.**—D. W. McDonald, Sutton West; M. H. TenEyck, Hamilton

**CARRIAGE HORSES.**—These formed a large class, the breeding sections containing the usual variety of blood elements, which are as difficult to analyze as they are hard to describe; hence the extraordinary lack of uniformity of type which characterizes this class. The Yorkshire coach horse again led off in the aged class, the handsome Prince Arthur, owned by Joseph Manarey, Goring, winning first, Thos. Irving's Bon Ton second, and the German coacher, Adam, of the Woodstock Coach Co., third. Many of the winning colts and fillies were sired by well-known English coachers.

**Awards.** Stallion, four years old and upwards—1st, J. Manarey, Goring (Prince Arthur); 2nd, T. Irving, Winchester



(Bon Ton); 3rd, Woodstock German Coach Co., Curries (Adam); 4th, A. B. Holbert, Woodstock (Kaiser Frederick). Stallion, three years old—3rd, J. L. Reid, Meadowvale (Salesman). Stallion, two years old—1st, W. C. Brown, Meadowvale (Prince George); 2nd, J. C. McCarty, Newmarket (Firebrand); 3rd, D. Dent, Delhi (Cherley Duval). Yearling colt—1st, J. L. Reid (Rainbow). Stallion, of any age—J. Manarey (Prince Arthur). Matched pair, not less than 16½ hands—1st, D. T. Lowes, Brampton 2nd, C. Dennis, Toronto; 3rd, F. Chisholm, Milton; 4th, A. B. C. Tisdale & Son, Bramford. Matched pair, between 15½ and 16½ hands—1st, T. G. Blackstock, Toronto; 2nd, G. Soderham, Toronto; 3rd, D. H. Grand & Co., Buffalo, N. Y.; 4th, J. D. Graham, Toronto. Gelding or filly, three years old—1st, R. I. Job, Everton; 2nd, H. Cargill & St. Cargill; 3rd, G. Jackson, Cooksville. Gelding or filly, two ½, ars old—1st, H. G. Boag, Queensville; 2nd, J. Boyer, Clarendon; 3rd, A. Summerfield, Cashel. Yearling gelding or filly—1st, A. Summerfield; 2nd, G. H. Hastings, Deer Park; 3rd, R. M. Wilson, Delhi. Brood mare with foal—1st, J. L. Reid; 2nd, R. M. Wilson; 3rd, Harris & Reynolds, Oakville. Foal of 1805—1st, J. L. Reid; 2nd, R. M. Wilson; 3rd, Harris & Reynolds. Single carriage horse, 15¾ to 16½ hands—1st, Dr. A. Smith, Toronto; 2nd, D. H. Grand & Co.; 3rd, F. Chisholm; 4th, F. E. Dalton, Niagara Falls South. Single carriage horse, not less than 16½ hands—1st, T. Brownridge, Brampton; 2nd, D. H. Grand & Co.; 3rd, T. Irving; 4th, J. Goodfellow, Toronto. Mare, of any age—R. Talbot (Jennie).

*Judges*.—D. P. McKinnon, South Finch; W. C. Edwards, Rockland.

**HACKNEYS.**—This popular breed becomes more numerous year by year, and when Canadian horsemen realize that the Hackney is the ideal gentleman's harness horse in the park or on the boulevard, and that high-steppers command high prices, then we shall see a couple of hundred tacked on to the forty entries bought out at the late show. To Mr. R. P. Stericker, Springfield, Ill., and R. Gibson, Delaware, had been assigned the task of handing out the rosettes. Five of the seven entries in the aged section answered to the first call for the class. Graham Bros.' Kilnwick Fireaway, by Lord Swanland, was evidently the choice of the committee from the outset. He was in his best form, and plied knee and hock in the most sensational style, and filled the eye of committee and company alike. H. N. Crossley, Rosseau, forwarded Fireworks, by Wildfire, a horse whose breeding and conformation are *git edged*. His action is true and neat, but lacks the brilliant character of the former horse. To him was awarded the blue ribbon. Alex. G. Bowker, V.S., Woodstock, had two Norfolk-bred horses entered. To The Shah, by Adonis, a black horse of cobby type, the committee awarded third. Mr. Bowker's other entry, Coker's Nelson, by Rattler 2nd, has the advantage in height, but does not move so attractively. In three-year-olds, four answered the summons for inspection, and Banquo, R. Beith & Co.'s last spring's sweepstakes colt, by Jubilee Chief, was awarded the red u. ket. The Hillhurst Farm's Royal Dane, by Cannymann, dam to the sweepstakes mare, Princess Dagnar, was placed second, while Lord Rosebery 2nd, by Jubilee Chief, credited another prize for K. Beith & Co. In two-year-olds, H. N. Crossley's Rosseau Performer was the only horse forwarded, and a neat good goer he is. The other entry, the Hillhurst Farm's Barthorpe Performer, unfortunately was an absentee through illness. Yearlings formed a very good ring, in which Hillhurst Farm scored a red with Gentility, a handsome colt, his dam being that grand harness mare, Miss Baker. A wonderful action he has, and plenty of it, too. H. N. Crossley's Rosseau Fireball, by Fireworks, was placed second; and Danish Duke, by Fordham, carried out a third ribbon for the contingent from the Hillhurst Farm. Last spring's decision for sweepstakes stallion was reversed, and Graham Bros.' Kilnwick Fireaway won. Brood mares comprised H. N. Crossley's Lady Cocking, by Royal George, and G. H. Hastings' Soubrette and Miss Noble; Beith & Co.'s Lady Aberdeen unfortunately having to remain in her box. The committee awarded the prizes in the order named. H. N. Crossley's Althorpe Countess won the red rosette for three-year-old fillies, and the beautiful mare, Cherry Ripe, owned by John Holderness, came second. The Hillhurst Farm was adjudged to have the best two-year-old filly. She is Matchless Maid, by Fordham, and Jessica carried a like honor in the yearlings for R. Beith & Co. Miss Baker of Hillhurst Farm carried the sweepstakes for the best mare or filly, and also won the harness prize. In high-steppers, Flirt and Vanity, half-bred Hackneys from D. H. Grand's Buffalo stables, were assigned the red, the Hillhurst Farm's Princess Dagnar and Charwoman third, while John Holderness' Cherry Ripe and Wild Foam carried second.

*Awards*.—Stallion, four years old and upwards—Graham Bros., Clarendon (Kilnwick Fireaway); 2nd, H. N. Crossley, Rosseau (Fireworks); 3rd, A. G. Bowker, Woodstock (The Shah). Stallion, three years old—1st and 3rd, R. Beith & Co., Bowmanville (Banquo and Lord Rosebery 2nd); 2nd, Hillhurst Farm, Hillhurst, Que. (Royal Dane). Stallion; two years old—1st, H. N. Crossley (Rosseau Performer). Yearling colt—1st and 3rd, Hillhurst Farm (Gentility and Danish Duke); 2nd, H. N. Crossley (Rosseau Fireball). Stallion, any age—Graham Bros. (Kilnwick Fireaway). Filly, three years old—1st, J. Holderness, Toronto (Cherry Ripe); 2nd, H. N. Crossley (Althorpe Countess).

Filly, two years old—1st, Hillhurst Farm (Matchless Maid); 2nd, G. H. Hastings, Deer Park (Fanny Bardolph). Yearling filly—1st, R. Beith & Co. (Jessica); 2nd, Graham Bros.; 3rd, G. H. Hastings (Princess of Denmark). Brood mare with foal—1st, H. N. Crossley (Lady Cocking); 2nd and 3rd, G. H. Hastings (Soubrette and Miss Noble). Foal of 1805—1st, R. Beith & Co. (Portia); 2nd and 3rd, H. N. Crossley (Rosseau Victoria and Rosseau Bird). Single horse, not less than 15½ hands—1st, Hillhurst Farm (Miss Baker); 2nd, H. N. Crossley (Lady Bird); 3rd, J. Holderness (Wild Foam). Mare, any age—Hillhurst Farm (Miss Baker). Stallion, bred and foaled in Canada in 1891, 11 and not exceeding 15 hands—G. H. Hastings (Black Nohleman).

*Judges*.—R. Gibson, Delaware; R. P. Stericker, Springfield, Ill.

### Heavy Horses.

**CLYDES.**—The heavy horses at the Toronto show were not largely represented. In many classes there were not enough animals forward to carry away the prize money.

There were no Percherons, nor any draught horses of that class, no Suffolk Punches, and very few Shires. In Clydes there were a capital lot of aged stallions. Many of them were not new to the prize ring, some of them having been winners in years gone by, and all were more or less known to Clyde admirers who have attended our past shows. Notable in this list was D. & O. Sorby's Grandeur [1724], winner of the 1st prize and sweepstakes, a position he also held a year ago. This horse was not out at the Toronto Spring Show, where the honors fell to Esquire of Park [2178], then recently imported by Graham Bros. from the United States. At that show there was a close run between him and Prince of Quality [2173], bred by Col. Holloway, of Illinois, and owned now by R. Davies. He was the winner of 2nd place at the Chicago show in the four-year-old class. This time Prince of Quality was not shown, and Esquire of Park, now owned by Thomas Colquhoun, Gorrie, was placed second to the old champion, Grandeur, who was in capital form; 3rd place fell to John Davidson, Ashburn, for Tofty [2123], and 4th to MacIndoe [2193], owned by Cheyne & Gardner, of Britannia. This was a very good class, and included the old prize-winners, MacIndoe [1117], Lewie Gordon [1602], and other well-known horses. There was a very nice, stylish colt shown in the two-year-old class by Graham Bros., Symmetry 2nd [2091], a light bay with good bone and fine feather, brought out with his skin shining like satin. In the yearling class there was a sharp rush for first place between King's Own, by Queen's Own [1708], out of Candour [1646], by Macgregor [1487], owned by Robert Davies, and Boydston Stamp [2190], owned by James I. Davidson & Son. The latter is a fine dapple brown, ripe as a peach, and as well balanced as a four-year-old, but looking a trifle overdone, which put him second to his rival, a more taking colt, full of promise. There was a nice field of half a dozen yearling fillies, in which D. & O. Sorby got 1st place, and a grand class of mares and foals, in which Robert Davies got 1st with Pride of Thorncliffe [1937], and 3rd with Candour [1646]; Kate Hill 2nd [1923], a smaller, very neat mare, owned by James I. Davidson & Son, and a get of Lewie Gordon, being 2nd. Pride of Thorncliffe is a fine mare, big and loomy, and it in full flesh would weigh over a ton. For mare with two of her progeny, Graham Bros. won with Nellie [1970], dam of the 1st prize foal and of Symmetry 2nd. Robert Davies won with Bar Belle and Nelly in the class for teams, and with his grand mare Nelly, as best mare of any age.

*Awards*.—Stallion, four years old and upwards—D. & O. Sorby, Guelph (Grandeur); 2nd, J. Colquhoun, Gorrie (Esquire of Park); 3rd, J. I. Davidson & Son, Ashburn (Tofty); 4th, Cheyne & Gardner, Britannia (MacIndoe). Stallion, three years old—1st, S. McArthur, Oro Station (Grand National). Stallion, two years old—1st, Graham Bros., Clarendon (Symmetry 2nd); 2nd, W. J. Howard, Dollar (City Boy). Yearling colt—1st, R. Davies, Toronto; 2nd, J. I. Davidson & Son (Boydston Stamp). Stallion, of any age—D. & O. Sorby (Grandeur). Filly, three years old—1st, Graham Bros. (Lady Flashwood); 2nd, J. I. Davidson & Son (Boydston Lass 6th). Filly, two years old—1st, S. J. Prouse, Ingersoll (O.S.a). Yearling filly or gelding—1st, D. & O. Sorby (Lady Annie); 2nd, J. I. Davidson & Son (Kate Hill 3rd); 3rd, J. Watt, sr., Elmbank (Jess). Brood mare with foal—1st and 3rd, R. Davies (Pride of Thorncliffe and Candour); 2nd, J. I. Davidson & Son (Kate Hill 2nd). Foal of 1895—1st and 2nd, Graham Bros. (Queen's Own and Blanch); 3rd, J. I. Davidson & Son (Pride of Balsam). Mare with two of her progeny—1st, Graham Bros. (Nelly). Span of Clydesdales—1st, R. Davies (Bar Belle and Nelly); 2nd, Graham Bros. (Evergreen and Daisy); 3rd, Hendrie & Co., Toronto (Empress and Jasmine). Mare, of any age—R. Davies (Nelly).

*Judge*.—Alex. Galbraith, Janesville, Wis.

**SHIRES.**—Shires were a small class. Horace N. Crossley won in the aged class with Bravo 2nd [250], a horse with considerable masculine quality, and a good mover, and also captured the sweepstakes with him; and 2nd place went to Pride of Hatfield [256], the winner at the Spring Show. The latter is a horse with a good top, short, straight, strong pasterns, and abundance of hair, showing the special Shire tufts. Mr. Crossley won with Queen of Althorpe [110], 1st in the class for brood mares, and also the sweepstakes. Morris, Stone & Wellington won for two and three-year-old fillies, and wit

Elsie Morin [34] for mare with two of her progeny, and for foal of 1895.

**Awards.**—Stallion, four years old and upwards—1st, H. N. Crossley, Rousseau (Bravo 2nd); 2nd, Morris, Stone & Wellington (Weland (Pride of Hatfield)); 3rd, J. L. Clark, Brampton (Lincoln Wonder). Stallion, three years old—1st, J. Gardhouse & Son, Highfield (Duke of Bladgon). Stallion, of any age—1st, H. N. Crossley (Bravo 2nd). Filly, three years old—1st and 2nd, Morris, Stone & Wellington (Beatrice and Bridget); 3rd, H. N. Crossley (Rosseau Queen). Filly, two years old—1st, Morris, Stone & Wellington (Leta); 2nd, H. N. Crossley (Rosseau Propriety). Brood mare with foal—1st, H. N. Crossley (Queen of Althorpe); Morris, Stone & Wellington (Elsie Morin). Foal of 1895—1st, Morris, Stone & Wellington (Major); 2nd, H. N. Crossley. Mare with two of her progeny—1st, Morris, Stone & Wellington. Mare, of any age—H. N. Crossley (Queen of Althorpe).

**Judge**—A. Galbraith, Janesville, Wis.

**HEAVY DRAUGHTS.**—In the class for heavy draughts, Canadian-bred, there was a goodly number of entries, and a very fair class of geldings shown, Hendrie & Co. winning with Douglas. For the best mare in this class, S. McArthur, Oro Station, won with a very nice animal by Montrose Chief. George Moore, Waterloo, showed the winning team of Canadian-bred draught horses.

**Awards.**—Stallion, four years old and upwards—1st, Graham Bros. (Bold Boy); 2nd, J. Vinond, Brooklin (Erskine Style); 3rd, J. Alsop, Glasgow (Lieutenant Georgie). Stallion, three years old—1st, F. W. Wambold, Breslau (Dandy Boy 2nd); 2nd, Laing & Meharry, Port Perry. Gelding—1st, Hendrie & Co.; 2nd, I. Devitt & Sons, Floradale; 3rd, T. A. Farr, Thistleton. Stallion, of any age—Graham Bros. (Hold Boy). Filly, three years old—1st, S. McArthur, Oro Station (Belle of Oro Station); 2nd, J. A. Starr, Pine Orchard (Jessie); 3rd, D. & R. McGeachy, Coleraire (Janet). Filly, two years old—1st, Graham Bros. (Queen of Atha); 2nd, A. Agar, Nashville (Belle); 3rd, J. A. Starr (Bonnie). Yearling filly or gelding—1st, C. Cameron, Thistleton; 2nd, D. & O. Sorby; 3rd, I. Devitt & Sons. Brood mare with foal—1st, F. Fenwick, Coleraire; 2nd, C. Cameron; 3rd, J. I. Balsdon, Balsam. Foal of 1895—1st, J. I. Davidson & Son; 2nd, C. Cameron; 3rd, A. Agar. Mare with two of her progeny—1st, C. Cameron. Span of heavy draughts—1st, G. Moore, Waterloo; 2nd, A. Hewson, Grahamsville; 3rd, I. Devitt & Son. Mare, of any age—S. McArthur (Belle of Oro Station).

### Cattle.

**SHORTHORNS.**—There were 82 entries of this popular sort, and although the class was not numerically as large as we have seen it in the past, yet an impartial judge must admit that there was no lack of good breeding material at Toronto. Especially strong was the class for all ages of bulls, and, although, as usual, a few veteran breeders could be heard remarking that a section was weak, we would ask, when saw we a better lot of bulls of all ages? Just five bulls over four years were present. This ring included W. C. Edwards & Co.'s imported Knight of St. John, a massive, evenly-finished red, of grand length, which for the first time appeared at Toronto, his true Aberdeenshire type and large scale commanding first honors. In Earl of Moray, E. Gaunt & Sons had forward a strong competitor. This bull's handsome form and deep, natural flesh grown upon a frame which is carried upon the shortest of legs, together with a beefing character such as any feeder might covet, proclaim him to be numbered among the very best in many years. The six-year-old heavily-fleshed red from the stables of John Currie & Son, Everton, that has so often won, War Eagle, made a capital third; while T. Douglas & Sons, Strathroy, had a good long and smoothly-finished son of Young Abbotshurn in Abbotshurn's Heir. The remaining bull was Jas. Tucker & Son's Red Emperor, a massive red, not in high condition, but a useful, nicely-finished bull notwithstanding. In the three-year-olds, R. & S. Nicholson carried first with Norseman, a son of Arthur Johnston's Indian Chief, while a grandson of the same bull by Nonpareil Chief, named Crown Jewel, carried second to the credit of Jas. Crerar, Shakespeare. To F. C. Sibbald, Sutton West, was sent the third. A capital ring of five two-year-olds next answered the summons, and a grand class they were. Simmons & Quirie's Barmpton Jr., among the last of old Barmpton Hero's long list of winning sons, caught the judge's eye. He is very like the old bull. He was not shown in high condition, and should make a strong three-year-old next year. The second place was given to Abbotshorn, a handsome, evenly-finished roan, exhibited by H. & W. Smith, Hay. James Rennie's Valasco 22nd was given third, while the exceedingly good entries sent in by Jas. Yule, Elder's Mills, and Jas. Oke, Alvinston, had to go unrecognized. Seven yearlings formed a capital class. Here Jas. Leask's Moneyful Lad, a wonderfully smooth and handsome yearling, was placed first. Arthur Johnston's Indian Brave, by Indian Chief, a beautiful roan with plenty of quality, was given second; while E. Gaunt & Sons' Revenue, a very strong and nicely-fleshed roan, was third. Bull calves were an immense class, in which of the twenty-seven entries eighteen faced the judges. An outstanding first was found in John Davidson's Scottish Leader. Mr. John Miller, Markham, had two good entries in Aberdeen 2nd and Master of Arts, both sired by his

imported bull Aberdeen, which he sold to Green Bros., Indianapolis, Ill. H. K. Fairbairn's Wide Awake, by Great Chief, was given fourth. To Jas. Leask's Moneyful Lad was sent the sweepstakes, the first time it has been awarded to a yearling, in many years. In females, six cows over four years entered the competition. W. C. Edwards & Co.'s Bessie of Rockland was awarded first place. She is a massive roan, heavily fleshed, and exceedingly handsome. J. & P. Crerar carried second and third with Rosabel and Missie of Neidpath, two nicely finished cows of good substance. W. C. Edwards & Co. scored another red with Missie 142nd, the second being sent to J. & P. Crerar's Kirklevington Duchess. Several grand two-year-old heifers were forwarded, in which J. & P. Crerar's Ruby Hill 2nd was declared first. She is a wonderfully thick heifer, with plenty of size, or she could not have beaten W. C. Edwards & Co.'s Lady Fame, which is decidedly a good one. The third was sent to F. C. Sibbald. Jas. I. Davidson & Son's Village Beauty 7th carried first among a class of neat yearlings; W. C. Edwards taking second; and Simmons & Quirie third. Thirteen of sixteen heifer calves came forward, and a good, useful lot they were. Simmons & Quirie came first, John Miller carried a second and fourth, R. & S. Nicholson third, and H. & W. Smith fifth. The silver medal for best female went to W. C. Edwards & Co.'s cow, Bessie of Rockland, and this firm also won first for bull and four females, the second and third going to J. & P. Crerar and F. C. Sibbald respectively. First for cow and two of her produce was won by J. & P. Crerar; while first for the best four calves bred by exhibitor went to John Miller.

**Awards.**—Bull, aged—1st, W. C. Edwards & Co., Rockland (Knight of St. John); 2nd, E. Gaunt & Sons, St. Helens (Earl of Moray); 3rd, John Currie & Son, Everton (War Eagle). Bull, three years old—1st, R. & S. Nicholson, Sylvan (Norseman); 2nd, J. & P. Crerar, Shakespeare (10th Crown Jewel); 3rd, F. C. Sibbald, Sutton West (Mazurka Duke 10th). Bull, two years old—1st, Simmons & Quirie, Ivan (Barmpton Hero); 2nd, H. & W. Smith, Hay (Abbotsford); 3rd, James Rennie, Wick (Valasco 22nd). Bull, yearling—1st, James Leask, Greenbank (Moneyful Lad); 2nd, Arthur Johnston, Greenwood (Indian Brave); 3rd, E. Gaunt & Sons (Revenue). Bull calf—1st, John Davidson, Ashburn (Scottish Leader); 2nd and 3rd, John Miller, Markham (Aberdeen 2nd and Master of Arts); 4th, H. K. Fairbairn, Theford (Wide Awake); 5th, R. & S. Nicholson (Valasco 27th). Bull, of any age—James Leask (Moneyful Lad). Cow, aged—1st, W. C. Edwards & Co. (Bessie of Rockland); 2nd and 3rd, J. & P. Crerar (Rosabel and Missie of Neidpath). Cow, three years old—1st, W. C. Edwards & Co. (Missie 142nd); 2nd, J. & P. Crerar (Kirklevington Duchess 8th). Heifer, two years old—1st, J. & P. Crerar (Ruby Hill 2nd); 2nd, W. C. Edwards & Co. (Lady Fame); 3rd, F. C. Sibbald (Lorna 3rd). Heifer, yearling—1st, J. I. Davidson & Son, Balsam (Village Beauty 7th); 2nd, W. C. Edwards & Co. (Mina 2nd); 3rd, Simmons & Quirie (Daisy of Strathallan 12th). Heifer calf—1st, Simmons & Quirie (Daisy of Strathallan 14th); 2nd and 4th, John Miller (Marvel and Coral); 3rd, R. & S. Nicholson (10th Lenore of Sylvan); 5th, H. & W. Smith, Hay (Freida). Cow and two of her progeny—1st, J. & P. Crerar. Four calves, under one year old, bred and owned by exhibitor—1st, John Miller; 2nd, R. & S. Nicholson; 3rd, Simmons & Quirie. Herd—1st, W. C. Edwards & Co.; 2nd, J. & P. Crerar; 3rd, F. C. Sibbald. Female, of any age—W. C. Edwards & Co. (Bessie of Rockland).

**Judges**—J. C. Snell, Edmonton; J. T. Gibson, Denfield.

**HERE.**—The whitefaces made a capital display this year at 1 into, and, although only two exhibitors had forwarded herds, these cattle were in far better form than we have seen them for several years, making a most creditable exhibit of this prime grazing sort. H. D. Smith, Compton, and the estate of the late F. W. Stone, Guelph, had both forwarded nicely prepared herds. H. D. Smith's bull, Amos of Ingleside, was much admired. He shows wonderful development, and is very smoothly finished. This breeder's cows were also thick-fleshed and handsome, the heifers displayed careful breeding, and were brought out in fine form. Among the females owned by the estate of the late F. W. Stone were some good cows and heifers, and, although not in high flesh, their good, meaty tops and well-fleshed ribs showed that they had been carefully brought out.

**Awards.**—Bull, aged 1st, H. D. Smith, Compton, Que.; 2nd, F. W. Stone Estate, Guelph. Bull, yearling—1st, H. D. Smith; 2nd, F. W. Stone Estate. Bull calf—1st, F. W. Stone Estate; 2nd, H. D. Smith. Bull, of any age—H. D. Smith (Amos of Ingleside). Cow, aged—1st and 2nd, H. D. Smith. Cow, three years old—1st, H. D. Smith; 2nd, F. W. Stone Estate. Heifer, two years old—1st and 2nd, H. D. Smith; 3rd, F. W. Stone Estate. Heifer, yearling—1st, H. D. Smith; 2nd, F. W. Stone Estate. Heifer calf—1st and 2nd, H. D. Smith. Herd—1st and 2nd, H. D. Smith. Female, of any age—H. D. Smith (Josephine 2nd).

**Judges**—A. R. Twilings, Forest; F. A. Fleming, Weston.

**POLLED ANGUS.**—The Aberdeen-Angus exhibit of this year was only deficient in numbers, the quality of the different entries being fully equal to that of past years. It was to be regretted that there was no entry in the class for aged bulls, as we believe this class gives more or less tone to the entire entry. In the two-year-old class the only entry was Wm. Stewart &

Son's Lord Wanton of Willow Grove 18984. He is a very stylish bull, with a fine back and front, but not quite perfect behind. If he improves in these points, he will be hard to beat in his three-year-old form. There were two entries in the yearling class, Mr. Bowman's Lord Aberdeen 3rd 20824, and Messrs. Stewart's Hero of W.G. 18986. Mr. Bowman deserves great credit for the way in which his entry in this class was brought before the judges, and, we may also add, for his entire exhibit. Lord Aberdeen 3rd, as a yearling, is second to none shown at Toronto for a number of years past. He carries a wealth of true flesh, and is beautifully covered on his crops and hook joints. He is excellent in his low lines, with a twist seldom seen at his age, and were it not for a slight unevenness of flesh along his top line we could pronounce him to be an almost perfect bull of the breed. Messrs. Stewart took 2nd place with Hero of W.G., who will improve by next year. He is a strong, useful bull, and has the appearance of growth about him. In the yearling class the same exhibitors came forward again. Mr. Bowman with Bonnie Lad, and Messrs. Stewart with Emlyn of W.G. Bonnie Lad in this case got the red, with Emlyn 2nd. The class for bulls of any age brought together the Willow Grove bull, Lord Wanton, and Mr. Bowman's Lord Aberdeen 3rd. The judges went again carefully over the pair, with the result that Mr. Bowman's fine animal was awarded the medal, with Messrs. Stewart's Lord Wanton a very close reserve. There were four entries, all forward, in the class for aged cows, three being from Guelph, by Mr. Bowman, and one from Willow Grove. The 1st prize in this class was deservedly awarded to Mr. Bowman's Kyma 2nd 13202, a cow that carries her great wealth of cover with style and grace. Her flesh was remarkably even, and she resembles the type most in vogue in the old land at present. A good 2nd was found in the Willow Grove cow, Caroline of Verulam, a cow hard to beat in high condition. Her journey to the Northwest this summer pulled her down considerably, and she was not by any means looking her best. Mr. Bowman's Mysie 2nd of Verulam took 3rd place over the same owner's Kyma 3rd. In the three-year-old class Mr. Bowman was again 1st with Kyma of Tweedhill, Messrs. Stewart's very fine heifer, Emlyn's Favorite, being 2nd. There were four entries in the yearling class, Messrs. Stewart being 1st, 2nd, and 3rd. Two entries faced the judges in the heifer calf class, one by Mr. Bowman and the other from Willow Grove. First prize went to Messrs. Stewart & Son. This decision was rather unpopular. Many held that Mr. Bowman's entry, though small, was the best in every respect. The judges, however, could not see it in this light, and the award was upheld. The herd prize went to Mr. Bowman, Messrs. Stewart taking 2nd place.

**Awards.**—Bull, two years old—1st, Wm. Stewart & Son, Lucasville. Bull, yearling—1st, James Bowman, Guelph; 2nd, Wm. Stewart & Son. Bull calf—1st, James Bowman; 2nd, and 3rd, Wm. Stewart & Son. Bull, of any age—1st, James Bowman (Lord Aberdeen 3rd). Cow, aged—1st and 3rd, James Bowman; 2nd, Wm. Stewart & Son. Cow, three years old—1st, J. Bowman; 2nd, Wm. Stewart & Son. Heifer, one year old—1st, 2nd, and 3rd, Wm. Stewart & Son. Heifer calf—1st, Wm. Stewart & Son; 2nd, James Bowman. Herd—1st, James Bowman; 2nd, Wm. Stewart & Son. Female, of any age—James Bowman (Kyma 2nd).

**Judges.**—A. McNeill, Vellore; J. G. Davidson, New Lowell.

**GALLOWAYS.**—The writer does not remember having seen at Toronto a finer all-round exhibit of this hardy and popular breed of cattle. The late Thomas McCrae, of Guelph, was the founder of the breed in Canada. His son, Mr. D. McCrae, has greatly improved even on his father's system of breeding and feeding Galloways. A look over his herd would at once show a judge of this breed that he is an expert in keeping the long, silky hair on their backs in this trying climate of ours, and the awards in the first class judged bears out the writer's views on this matter. There were three entries in the aged bull class, A. M. & R. Shaw's MacCartney, John Sibbald's Ottawa, and D. McCrae's Canadian Borderer. Messrs. Shaw's bull was a very superior animal, a good handler, and of a type to improve Canadian cattle. Mr. Sibbald's bull was in many respects a better animal than MacCartney, with the one great drawback, want of hair, which is in every country fatal to a Galloway in the show ring. Mr. McCrae's Borderer, in his long, silky, wavy hair, excelled the others. He is of a most attractive type, and shows the best feature of the Scotch character. He is remarkably even in his flesh. He is also an evenly-balanced bull, with great depth of rib and beautiful shoulders and crops, and shows well in walking. His top and low lines are almost perfect, and his broad, double poll stamped him as a champion of his breed. The silver medal for best Galloway bull was "by right his ain," and Mr. McCrae may well be congratulated in possessing such a grand specimen of the Galloway breed. The class for aged cows included nine entries, by Messrs. Shaw, Mr. W. K. Harkness, Mr. Sibbald, and Mr. D. McCrae. After some difficulty a top was found in Mr. Sibbald's splendidly brought out cow, Countess of Glencairn 3rd. Her hair was not quite right, but in other respects she was an outstanding winner, and Mr. Sibbald may well be proud of the shape he brought her into the ring. The remaining prizes were pretty well divided among the above exhibitors, Mr. McCrae taking the largest share. The herd prize, as in the Angus exhibit, was easily decided as to the first place, Mr. D. McCrae's grand four being placed 1st, with Messrs. Shaw 2nd, and Mr. Sibbald 3rd,

and so ended one of the best Galloway contests ever seen in Canada.

**Awards.**—Bull, aged—1st, D. McCrae, Guelph; 2nd, John Sibbald, Annap; 3rd, A. M. & R. Shaw, Brantford. Bull, two years old—1st, D. McCrae; 2nd, A. M. & R. Shaw. Bull, yearling—1st, D. McCrae; 2nd and 3rd, A. M. & R. Shaw. Bull calf—1st, A. M. & R. Shaw; 2nd, D. McCrae; 3rd, John Sibbald. Bull, of any age—D. McCrae (Canadian Borderer). Cow, aged—1st, John Sibbald; 2nd, D. McCrae; 3rd, A. M. & R. Shaw. Cow, three years old—1st, 2nd, and 3rd, D. McCrae. Heifer, two years old—1st, D. McCrae; 2nd, A. M. & R. Shaw; 3rd, John Sibbald. Heifer, yearling—1st, D. McCrae; 2nd, John Sibbald; 3rd, A. M. & R. Shaw. Heifer calf—1st and 2nd, D. McCrae; 3rd, A. M. & R. Shaw. Herd—1st, D. McCrae; 2nd, A. M. & R. Shaw; 3rd, John Sibbald. Female, of any age—John Sibbald (Countess of Glencairn 3rd).

**Judges.**—A. McNeill, Vellore; J. G. Davidson, New Lowell.

**DEVONS.**—As in former years, Devons were shown by W. J. Rudd and Ralph Rudd, of Eden Mills, and between these two the prizes were divided. In the prize list this year, as in the Hereford class, only two prizes were offered in each section.

**Awards.**—Bull, aged—W. J. Rudd, Eden Mills. Bull, two years old—1st, W. J. Rudd; 2nd, R. Rudd, Eden Mills. Bull, yearling—1st, W. J. Rudd. Bull calf—1st, W. J. Rudd; 2nd, R. Rudd. Bull, of any age—W. J. Rudd (Rob K.). Cow, aged—1st, W. J. Rudd; 2nd, R. Rudd. Cow, three years old—1st, W. J. Rudd; 2nd, R. Rudd. Heifer, two years old—1st, R. Rudd; 2nd, W. J. Rudd. Heifer, yearling—1st, R. Rudd; 2nd, W. J. Rudd. Heifer calf—1st, R. Rudd; 2nd, W. J. Rudd. Herd—1st, W. J. Rudd; 2nd, R. Rudd. Female, of any age—W. J. Rudd (Beauty 2nd).

**GRADE CLASS.**—Grade cattle, as brought out at all our leading exhibitions, are sufficient proof of the value of Short-horn blood in improving our beefing cattle. And the high order of merit to be found in this department is to be accounted for by the care which these breeders of grades exercise in the selection of the sires used in their breeding herds. The quartette of showmen that have been fighting for honors in the classes for graded cows, heifers, and steers have no easy row to hoe, as the men popularly known as the four "Jims" fully realize, and when the names of Jas. Oke, Alvinston; Jas. Leask, Greenbank; Jas. Yule, Elder's Mills; and Jas. Rennie, Wick, appear in the entries, there is but spare picking for any one else. Such a ring of aged cows as that led out at Toronto would make Shorthorns look to their laurels, and breeders of some of the other sorts copy their style of showyard fitness. Jas Yule's Lady is a marvel of smoothness, and her handsome form carried on a scale of 2,260 pounds, while she is breeding regularly, placed her before all competitors. The entries of Jas. Leask were only a short distance behind her, built, as they are, up to nearly a ton each. The other sections for heifers, as well as steers, were pretty equally divided among the four exhibitors before mentioned.

**Awards.**—Cow, four years and upwards—1st, James Yule, Elder's Mills; 2nd and 3rd, James Leask, Greenbank. Cow, three years old—1st and 2nd, James Yule; 3rd, James Leask. Heifer, two years old—1st and 2nd, James Leask; 3rd, James Oke & Son, Alvinston. Heifer, yearling—1st, James Rennie, Wick; 2nd and 3rd, James Leask. Heifer calf—1st and 2nd, James Rennie; 3rd, John Currie & Son, Everton. Four females, over one year old—1st and 3rd, James Leask; 2nd, James Yule. Female, of any age—James Yule (Lady).

**Judges.**—J. Miller, Markham; L. Burnett, Greenbank.

**FAT CATTLE.**—Ox or steer, three years old and over—1st, Jas. Oke & Son, Alvinston. Steer, two years old—1st, James Oke & Son; 2nd, James Rennie, Wick. Steer, yearling—1st, Thos. Russell, Exeter; 2nd, M. H. Nicholls, Hamilton; 3rd, James Oke & Son. Steer calf—1st, James Leask, Greenbank; 2nd and 3rd, James Oke & Son. Cow or heifer, four years old and over—1st, James Oke & Son; 2nd, James Yule, Elder's Mills. Heifer, under four years—1st, James Oke & Son; 2nd, James Rennie; 3rd, James Leask. Fair fat cattle, any age—1st, J. R. Caldwell, Fergus; 2nd, James Oke & Son; 3rd, James Rennie.

**Judges.**—C. S. Collard and J. Mallory, Toronto.

**AVRSHIRES.**—Never in the history of the show rings of Ontario has there surer been so choice and large an exhibit of this capital dairy sort as was shown at Toronto, while the event was the more interesting from the fact that many of the best individuals had met for the first time. Once again the difference of opinion as to which type is most valuable added to the uncertainty which hung round the awards in too many of the dairy classes, and, doubtless, this fact was the cause of much criticism freely expressed by outsiders. An entry of 130 animals will give one an idea of the magnificent display made in this class, and the probable work which J. Crosby, Campbellford, and Alex. Yuill, Carleton Place, had laid out for them. It was a splendid array of aged bulls which responded to the first call, comprising D. McLachlan's Silver King, a bull whose wonderful substance, deep ribs, and superb quality have often been described, and as frequently carried him to the front at previous contests, while the fact that he has begotten sons which are proving potent in improving numerous herds of the breed adds materially to his value. R. G. Steacy's Carlyle of Lessnessock, whose style, make-up,

and grand Ayrshire character are all one could desire: Robert Reford's Glencairn III., that all Ayrshire men admire, and not a few placed near the pinnacle of Ayrshire excellence; John Newman & Sons' Glencoe, a deep-ribbed animal, and of surpassing dairy type and quality; Wm. Stewart & Son's White Prince, which has already gained a reputation in the show ring and breeding herd, as attested to by past laurels won by successful sons and daughters; James McCormack & Son's Sir Laughlin, which won the sweepstakes last year; Kain Bros. (Byron) Castle Douglas, which sired many good ones that have been heard from in the highest company; and John L. Elliott's Blake, completed a list of superlative merit, which, as might be expected, proved a tough piece of work for the committee to start upon, and while we do not feel disposed to criticize too harshly their findings, we cannot say we altogether concurred with their judgment. In the section for two-year-olds six entries were forwarded, which were not nearly as strong in merit. Here Jas. McCormack & Son had an outstanding first in Jack Morton, followed by an entry each from the herds of Thos. Guy, John Newman & Sons, and W. Stewart & Son. Six yearlings formed a much stronger ring, in which Alex. Hume & Co. had a beautiful entry in Prince of Barcheskic, to which the committee very properly sent the red, while to John Newman & Son's bull of true dairy type and deep ribs, was awarded the blue, and Kain Bros. had a strong third in Neidpath Hero, while R. G. Steacy was given fourth for a remarkably handsome yearling. The bull calf class contained twenty nicely-finished youngsters. The committee awarded first to a remarkably handsome entry of Alex. Hume & Co.'s, followed by several good ones exhibited by Thos. Guy, W. Stewart & Son, and D. McLachlan. Just two dozen or as handsome Ayrshire cows as anyone ever looked upon appeared in the aged class, and a long hour elapsed before the jury arrived at any decision as to which of the four fortunates would be placed. Mr. Reford's White Floss, the beautiful four-year-old cow that had already won second in this year's milk test in competition with the best of every breed, was given the red. She not only has almost faultless dairy conformation, but her grandly developed vessel and nicely-formed teats placed her a popular first. It will be remembered that White Floss won a sweepstakes among the heifers at the World's Fair, Chicago. R. G. Steacy was awarded the blue, and also the yellow, for the two beautiful imported cows, Lady Diana and White Rose of Altiano, neither of which was in full flow of milk, and, consequently, not in the highest show form. John Newman & Son's imported cow, Beauty of Ayrshire, carried fourth place, the judges lamenting that there were not more prizes to offer in this wonderful class. It was a very nice ring of fourteen three-year-olds, in which R. G. Steacy's last year's sensational two-year-old, imported May Queen, was placed in the lead. She has since developed a capital vessel and nicely-formed teats, as she promised in her two-year form. Thos. Guy was given second and John Newman & Sons carried third with nicely brought out heifers. Wm. Stewart & Son, Kain Bros., John Newman & Sons, and Robert Reford, in the order named, gained the best of it in a ring of twelve select yearlings. The heifer calves were divided into two sections, one under the year, and another under six months, in the former of which sixteen entries had been forwarded, while fifteen came out in the latter. Most promising youngsters could be found in both of these, and our prize list will give the successful exhibitors. To R. G. Steacy was awarded sweepstakes for bulls, with Carlyle of Lessnessock, and Robert Reford's White Floss carried the same honor among the females, the tussle being between her and Mr. Steacy's May Queen. Wm. Stewart & Son won first on the bull White Prince and four of his progeny; Jas. McCormack & Son, second, with Sir Laughlin and four of his progeny; John Newman & Sons, third, with Glencoe; and D. McLachlan, fourth, with Silver King, and their respective families. The herd prize was sent to R. G. Steacy.

*Awards.*—Bull, aged—1st, R. G. Steacy, Brockville; 2nd, D. McLachlan, Petite Cote, Quebec; 3rd, James McCormack & Son, Rockton; 4th, John Newman, Lachine, Que. Bull, two years old—1st, James McCormack & Son; 2nd, Thomas Guy, Oshawa; 3rd, John Newman; 4th, W. Stewart & Son, Menie. Bull, yearling—1st, A. Hume & Co., Burnbrae; 2nd, John Newman; 3rd, Kain Bros., Byron; 4th, R. G. Steacy. Bull calf—1st, A. Hume & Co.; 2nd, Thomas Guy; 3rd, W. Stewart & Son; 4th, D. McLachlan. Bull, of any age—1st, R. G. Steacy (Carlyle of Lessnessock). Cow, aged—1st, Robert Reford, St. Anne de Belle. ue; 2nd and 3rd, R. G. Steacy; 4th, John Newman. Cow, three years old—1st and 4th, R. G. Steacy; 2nd, Thomas Guy; 3rd, John Newman. Heifer, two years old—1st, W. Stewart & Son; 2nd, Kain Bros.; 3rd, John Newman; 4th, Robert Reford. Heifer, yearling—1st and 3rd, W. Stewart & Son; 2nd, W. M. & J. C. Smith, Fairfield Plains; 4th, John Newman. Heifer, calf—1st, James McCormack & Son; 2nd, Robert Reford; 3rd, D. McLachlan; 4th, W. Stewart & Son. Heifer calf, under six months—1st, A. Hume & Co.; 2nd, W. Stewart & Son; 3rd, Thomas Guy; 4th, Isaac Holland, Culloden. Bull and four of his progeny—1st, W. Stewart & Son; 2nd, James McCormack & Son; 3rd, J. Newman; 4th, D. McLachlan. Four calves, under one year—1st, R. Reford; 2nd, W. Stewart & Son; 3rd, A. Hume & Co.; 4th, James McCormack & Son. Herd—1st, R. G. Steacy; 2nd, James McCormack & Son; 3rd, D. McLachlan; 4th, W.

Stewart & Son. Female, of any age—R. Reford (White Floss). *Judges.*—Alex. Vuill, Carleton Place, J. Crosby, Campbellford. *JERSEYS.*—In this class the number of entries totalled 108 head, including representatives from nearly all the leading herds in the province; and although in some of the sections the exhibits were hardly up to what has been seen in previous years, still this was counterbalanced by the presence of several animals that could have held their own in any company. Owing to the absence of Mr. T. S. Cooper, who had been appointed judge, the awards were made by Messrs. F. S. Peer and J. C. Snell, both well known as expert judges of Channell Island cattle. In the aged bull class six were forward, and here last year's conqueror, the well-known Mighty Dollar, had to fall back into 2nd place before the youngest of the two representatives from the Belvedere herd, Lillimur's Rioter, a grand pattern of a dairy sire, a nice handler, and showing a wonderful pair of rudimentary teats, while Prince of Elmbank, winner last year of 1st place in the two-year-old class, came in 3rd, with Hugo Alpha of Oaklawn, the sweepstakes bull of 1893, 4th. Besides these Wm. Bacon, of Orillia, showed a very handsome bull in Kaiser Fritz, and although age is naturally beginning to tell a little on Mrs. Jones' famous old bull, Canada's Sir George, still it was a surprise to a good many that he was not further up. In two-year-olds 1st place went to J. H. Smith & Son's King of Highfield, and a rare good 'un. He is sired by Hugo Alpha of Oaklawn, and out of Signal Rosa May, their famous show cow; while Geo. Smith & Son came in 2nd with a very useful bull by Nell's John Bull, and out of the 1st prize three-year-old cow. Third place went to B. H. Bull & Son, of Brampton, for Sir Ollie. This is a bull we would have liked to have seen placed a peg higher up. He is a most beautiful handler, and his value as a stock-getter is shown by the fact that he sired all four of the 1st-prize calves in section 12. A. McLean Howard, jr., captured 4th place, while Captain Rolph's 2nd-prize yearling of last year was unplaced. In yearling bulls Messrs. G. Smith & Son came in 1st with another son of Nell's John Bull, who further distinguished himself by heading the 2nd-prize herd; 2nd and 3rd going to Wm. Bacon, Orillia, for a nice pair of youngsters that looked like making useful bulls of a good dairy type, the 3rd-prize winner being by Kaiser Fritz, and out of a cow with a 20-lb. record; while the Glen Duart Farm again came in 4th with a son of their stock bull, Orloff of Lee Farm, who added another feather to his cap as sire of the 1st-prize bull calf, a very nice, smooth calf, with every promise of growing into something that will do credit to Glen Duart Farm and its owner, 2nd and 3rd going respectively to J. M. McKay and Mrs. E. M. Jones, the Highfield herd coming in 4th with a calf five weeks old in a class of thirteen. Eighteen aged cows faced the music, and the fact that the winner of the sweepstakes last year, Signal Rosa May, had to content herself here with 2nd place shows the character of the exhibit, 1st place going to Capt. Rolph's Belvoir Pet, a cow whose only fault, if it can be called one, is that she is rather undersized, her show of milk being something wonderful. Mrs. E. M. Jones came in 3rd and 4th with a beautiful pair of four-year-olds, one of these, Miss Satanella 2nd, being out of a dam that has given in a test 20½ lbs. of butter a week for three consecutive months. This cow was far gone in calf, and so did not show to the best advantage. In three-year-olds George Smith & Son were 1st with Kit's Fancy, dam of the 2d-prize two-year-old bull, and J. H. Smith & Son 2nd with a cow that tested 15 lbs. 0 oz. as a two-year-old, 3rd and 4th going to Captain Rolph and W. J. Thompson respectively. In the next two classes, two-year-old and yearling heifers, Mrs. E. M. Jones scored a pair of 1sts, and Messrs. J. H. Smith & Son a pair of 2nds. The 2nd-prize yearling especially took our fancy, showing an exceedingly well-developed udder, with prominent veins. In this class Mrs. Jones showed a heifer that we thought should have had a place, a daughter of that grand old cow, Massena, by the sweepstakes bull, Lillimur's Rioter. This heifer struck us as showing every promise of making a grand dairy cow, although her unfashionable color, fawn and white equally distributed, may interfere with her showyard career. In two-year-olds George Smith & Son and A. McLean Howard, jr., and in yearlings B. H. Bull and Neil Smith, were 3rd and 4th respectively. First for heifer calves under one year went to R. H. Bull for a daughter of Sir Ollie, A. McLean Howard, jr., Wm. Rolph, and J. H. Smith & Son following in the order named. In the class for calves under six months Sir Ollie's get again came to the front, winning 1st and 4th, 2nd and 3rd going to J. H. Smith & Son and Wm. Rolph. We might notice here the fact that the 1st-prize calf in this section is a daughter of the 3rd-prize yearling heifer. The red ticket for four calves bred and owned by the exhibitor went to B. H. Bull, who is to be congratulated on the start he has made in the show ring, J. H. Smith & Son coming in 2nd with four nice calves by Hugo Alpha of Oaklawn, with Captain Rolph 3rd and Mrs. Jones 4th. Six herds competed for the coveted medal, and after a careful examination the judges awarded it to Mrs. E. M. Jones' herd, headed by Lillimur's Rioter, George Smith & Son coming in a close 2nd, with last year's winners from Highfield 3rd, and the Glen Rouge herd 4th. The sweepstakes female proved to be Captain Rolph's cow, Belvoir Pet, and the championship among the bulls fell to Lillimur's Rioter, the 1st-prize aged bull, although Messrs. J. H. Smith's two-year-old, in the opinion of many good judges, ran him very close.

*Awards.*—Bull, aged—1st, Mrs. E. M. Jones, Brockville; 2nd, J. L. Clark, Brampton; 3rd, Mrs. J. McClure, Brampton;

(Continued on page xxvi)

## BIG SALE

AT Isaleigh Grange Farm, Danville, Que., will be held one of the greatest stock sales that have ever taken place in this country. Mr. J. N. Greenshields, proprietor of Isaleigh Grange Farm, and Mr. A. McCallum, of Spruce Hill Dairy Farm, have decided to hold a joint sale on Mr. Greenshields' farm (which comprises over 800 acres) on October 15th, when they will offer an immense herd of purebred Ayrshire and Guernsey cattle, Shropshire sheep, and Yorkshire swine, of all ages and both sexes. It will be a grand opportunity for breeders to secure first class animals of the above breeds at their own prices. The stock contains no culls.

It is proposed to make the sale an annual event, and to conduct it in such a manner as to merit the fullest confidence and support.

Catalogues containing full particulars of stock are now ready, and a copy will be sent free to any one applying to

**T. D. McCALLUM, Manager,**  
**Danville, Que.**

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## Dispersion Sale

WE will sell by public auction on Wednesday, October 30th, 1895, our entire herd of Shorthorn cattle, consisting of thirty-five females and ten young bulls; also eighty Southdown and Leicester sheep, and a number of Berkshire pigs.

Catalogues ready by 10th of September, and sent free on application.

Our herd is of very choice breeding, having used only "Campbell" or "Lord Polwarth" bulls for the last fifteen years.

Sale to commence immediately after lunch at 12 o'clock.

*TERMS—Eleven months' credit on approved notes.*

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# The Great Dispersion

THE Shorthorn Breeders of America and the world are respectfully invited to attend the Closing-out Sale of the entire Forest Grove Herd of Fine Show Cattle and valuable breeding stock, property of the late Col. T. S. Moberley to be held at Richmond, Ky., on Wednesday, October 23rd. The sale will be positive, and will include the renowned bulls, Young Abbotsburn 119679 and Nonpareil Chief 113034, and such cows as imp. Princess Alice, imp. Victoria 79th, imp. Daisy of North Oaks, imp. Orange Blossom 31st, 7th Linwood Golden Drop, Gwendoline 2nd, Isabella 3rd, etc.—generally conceded to be the richest collection of Shorthorn cattle in North America at the present time. The opportunity of a lifetime to secure top cattle.

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**Col. R. E. Edmonson, Auctioneer,**      **N. B. Deatherage, Administrator,**  
**RICHMOND, KY.**

At 9 a.m. some fine young saddle stallions and mares will be sold.  
Cattle sale begins at 1 p.m. sharp.

**WM. CLARK, North Wiltshire, P.E.I.**, offers for sale, at moderate prices, a very choice lot of Leicester ram lambs from prize-winning ewes, and sired by his noted stock ram, McNeil 190. He also breeds Improved Large Yorkshire pigs, and Plymouth Rock poultry.

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Choice Ayrshire bull calf, sire Glencairn 3rd (imp.), dam Nellie Osborne (imp.).  
All young stock sired by imported bulls.

**DANIEL DRUMMOND, Petite Cote, Que.**

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One yearling bull, one two-year-old bull, heifer and bull calves. All from choice milking stock. Prices reasonable.

Address, **WM. KIDD, Petite Cote, Que.**

4th, J. H. Smith & Son, Highfield. Bull, two years old—1st, J. H. Smith & Son; 2nd, Geo. Smith & Son, Grimsby; 3rd, B. H. Bull, Brampton. 4th, A. McLean Howard, jun., Toronto. Bull, yearling 1st, Geo. Smith & Son; 2nd and 3rd, Wm. Bacon, Orillia; 4th, A. McLean Howard, jun. Bull, calf—1st, A. McLean Howard; 2nd, J. M. McKay, Elmbank; 3rd, Mrs. E. M. Jones; 4th, J. H. Smith & Son. Bull, of any age—Mrs. E. M. Jones (Liltmur's Rioter). Cow, aged 1st, Wm. Rolph, Markham; 2nd, J. H. Smith & Son; 3rd and 4th, Mrs. E. M. Jones. Cow, three years old—1st, George Smith & Son; 2nd, I. H. Smith & Son; 3rd, Wm. Rolph; 4th, W. J. Thompson, Orkney. Heifer, two years—1st, Mrs. E. M. Jones; 2nd, J. H. Smith & Son; 3rd, George Smith & Son; 4th, Wm. Rolph. Heifer, yearling 1st, Mrs. E. M. Jones; 2nd, J. H. Smith & Son; 3rd, B. H. Bull; 4th, Neil Smith, Brampton. Heifer calf 1st, B. H. Bull; 2nd, A. McLean Howard, jun.; 3rd, Wm. Rolph; 4th, J. H. Smith & Son; Heifer calf, under six months—1st and 4th, B. H. Bull; 2nd, J. H. Smith & Son; 3rd, Wm. Rolph. Four calves—1st, B. H. Bull; 2nd, J. H. Smith & Son; 3rd, A. McLean Howard, jr.; 4th, Mrs. E. M. Jones. Herd—1st, Mrs. E. M. Jones; 2nd, George Smith & Son; 3rd, J. H. Smith & Son; 4th, Wm. Rolph. Female, of any age Wm. Rolph (Belvoir Pet).

Judges.—F. S. Peer, Mt. Morris; J. C. Snell, Edmonton.

**GURNEYS.** In this class an extra prize was added this year, making three prizes in each section, and, as a result, there was a larger exhibit than hitherto. In the aged bull class, four bulls competed, three of them, curious to say, being half-brothers, all being sired by the fourth, the well-known bull, Ontario's Pride. First place went to May's Rosebery, exhibited by Isaac Holland, Culloden, winner last year of 1st and silver medal; and to Presto of Elm Grove, 1st last year as a two-year-old; while the old bull, Ontario's Pride, who was very sore on one front foot, had to content himself with 3rd. In two-year-olds, there was only one entry, Isaac Holland's Dandy of Oxford, and he was awarded 1st. This bull has improved a good deal since last year. In yearlings the contest lay between Isaleigh May Boy, bred and exhibited by J. N. Greenshields, and King of Oxford, bred by W. H. & C. H. McNish and exhibited by Wm. Butler & Son, 1st going to the latter, Isaleigh May Boy, although larger, hardly showing quite as strong dairy points as his opponent. The contest in bull calves again lay between the Isaleigh Grange and Elm Grove herds, 1st and 3rd going to the latter, and 2nd to the former. Six aged cows met in the next class, each herd being represented by three, Messrs. McNish winning 1st with Ada of Eastview, one of their recent purchases, a good pattern of a dairy cow, although scarcely as large as we would like, and certainly not showing to her best advantage, as she is too far gone in calf; 2nd and 3rd went to May Queen 6th and Little May Queen, respectively, of the Isaleigh Grange herd; Eliza C. 2nd, the sweepstakes cow last year from the same herd, not being placed. In three-year-olds, Messrs. McNish again scored 1st with Belinda of Eastview, and 2nd with Udelta of Eastview, a half-sister to the 1st-prize cow, 3rd going to Isaleigh Grange for Isaleigh Queen, a big, useful heifer, winner of 1st last year as a two-year-old, but too low in condition to show well this year. Messrs. McNish made a

clean sweep in the next class, winning 1st with Colanthe, the 2nd-prize heifer last year, and 2nd and 3rd with a pair of heifers out of their recent purchase. First and 2nd places for yearling heifers went to the Elm Grove herd for a nice pair, got by their stock bull, Florist, although we rather expected to have seen the 3rd-prize heifer, Isaleigh Duchess, by Adventurer, placed higher up. This is a nice heifer, and should make a good dairy cow. Another competitor appeared in the calf class, Robert Moody winning 1st for a daughter of Rosebery Duke and Columbine, a cow purchased some years ago from the Davies herd; 2nd going to J. N. Greenshields for Isaleigh Buttercup, a daughter of Lady Luke, the 1st prize cow at Montreal in 1892; and 3rd to W. H. & C. H. McNish for a calf from the imported cow, Adele 3rd. Only two herds competed for the medals, 1st place going to Messrs. McNish for their herd headed by Presto of Elm Grove, and 2nd to J. N. Greenshields for his herd headed by Isaleigh May Boy. Messrs. McNish won sweepstakes for the best female with their aged cow, and Isaac Holland sweepstakes for best male with the 1st prize aged bull.

(Continued in Supplement.)

## MISCELLANEOUS.

The logo for Windsor Salt features the word "Windsor" in a large, stylized, black, serif font with a white outline. Below it, the word "Salt" is written in a smaller, similar font, also with a white outline. The entire logo is set against a white background with a decorative flourish underneath.

Purchasers of Windsor, Dairy, or Cheese Salt should examine the labels on the barrels to make sure that ordinary fine salt has not been sold them instead of special Dairy or Cheese Salt respectively.

All Dairy and Cheese Salt Barrels are Paper Lined

423

## CREAM SEPARATOR PATENTS

Important Decrees and Injunctions in Centrifugal Cream Separator Infringement Litigation

**"ALPHA" DE LAVAL PATENTS SUSTAINED**

**T**HE DE LAVAL COMPANY, by advice of counsel, begs to announce, for the information and further caution of all whom the facts may concern, several decisions in its pending patent right litigation, of interest and importance to users and intending buyers of Centrifugal Cream Separators.

On June 18th, Judge Cox, sitting in the U.S. Circuit Court for the Northern District of New York, at Canandaigua, N.Y., granted a decree, inclusive of a perpetual injunction, sustaining the material claims of the Von Bechtolsheim patent, better and commercially known as the "Alpha" DeLaval patent, in the suit of *The DeLaval Separator Company, of New York*, against *Samuel Hotchkiss, of Delaware Co., N.Y.*, who had been making and selling a cream separator with an interior bowl device, thus held to infringe the "Alpha" patent as charged by the DeLaval Company.

Following this decision, Judge Wallace, sitting in the U.S. Court at Syracuse, N.Y., on August 20th, granted an injunction against John Houston, of Hamden, Delaware County, N.Y., an owner and user of one of the so-called Hotchkiss separators, which injunction restrains Houston from the further use of such machine.

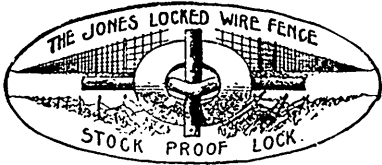
It is not definitely known how broad the scope of the present decisions may be as regards their immediate bearing upon the manufacture and use of asserted infringing machines other than the ones specifically sued upon in these actions, but due and repeated caution is again given in this respect, that no one may have reason for complaint at the possible outcome of such further proceedings as may be necessary in maintaining just and lawful rights and interests.

**THE DE LAVAL SEPARATOR COMPANY**

GENERAL OFFICES:

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Canadian Dairy Supply Co.  
327 Commissioners St., MONTREAL.

74 Cortlandt Street,  
NEW YORK.



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**THE**  
**Locked-Wire Fence Co.**

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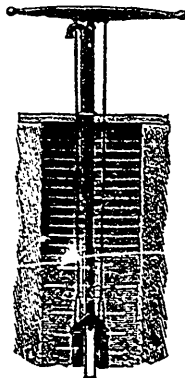
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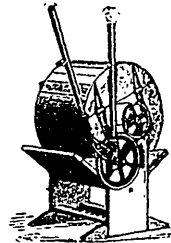


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And washes more clothes at one time than any other machine. Write for prices and terms to

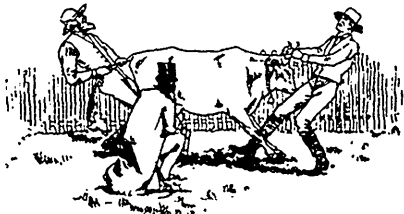
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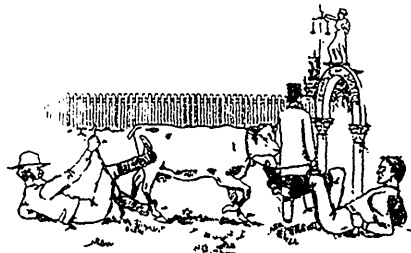
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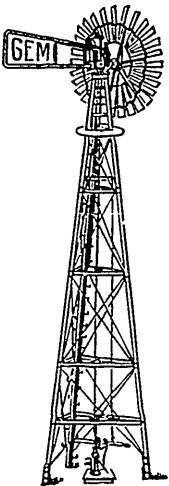
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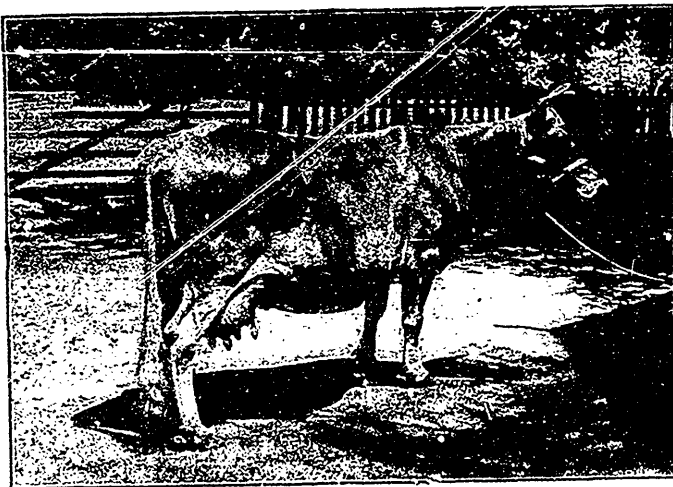
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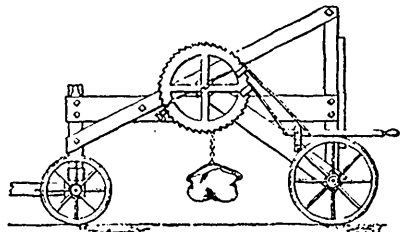
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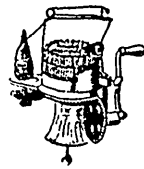
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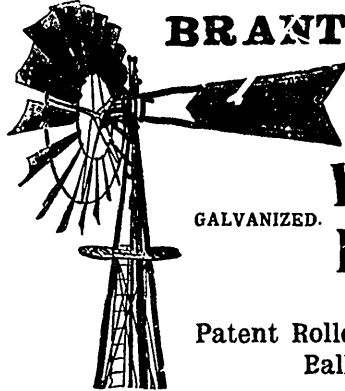
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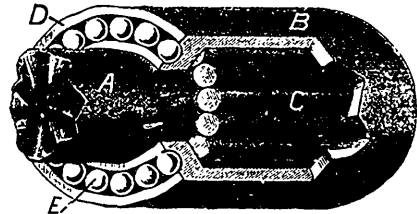
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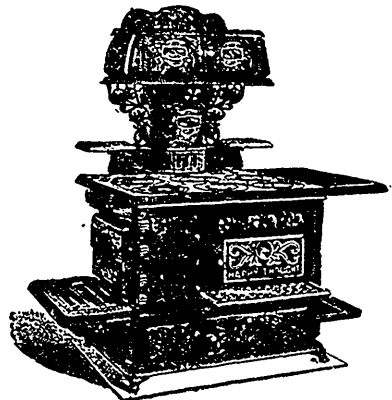


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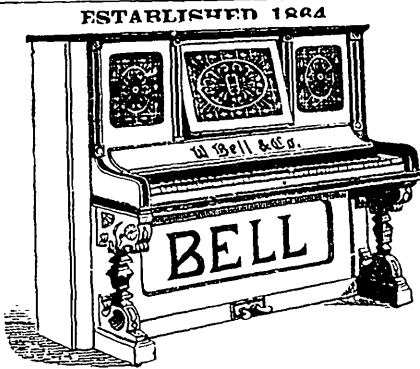
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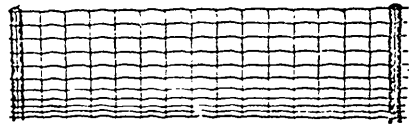
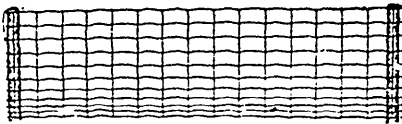
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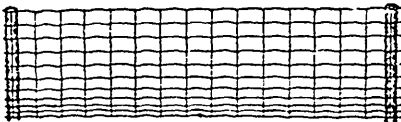
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Yours very truly,  
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### WHAT COMPARISON SHOWS

Progressive farmers are all the time comparing the merits of the different styles of fencing they see, and this is about

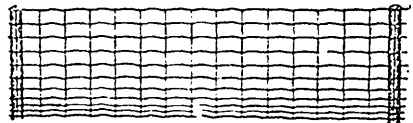
#### What they think of the Page

1. It is most popular where it has been used longest.
2. It successfully overcomes expansion and contraction, and looks as well each spring as it did the fall before.
3. It gives most wires for the money, and has the top wires high enough for horses, while at the bottom they are close enough to stop pigs.
4. The wires are made of the best grade of steel, and have almost double the strength of wires commonly used.
5. The cross wires are but a foot apart, so that small animals cannot spread the wires between stays.
6. It needs but few posts, lasts a lifetime, always turns stock, and is altogether the most economical fence.
7. If you haven't yet, you should at once write to the Page Wire Fence Co., Ltd., Walkerville, for further particulars.

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Our agents have often been accused of gobbling up the best fence trade in a very hoggish way. Recently they have imitated the animal in a still more realistic manner. One 176 lb. agent declared he could crawl through any smooth wire fence where the stays or cross wires were not nearer than two feet. This statement, published in our monthly paper, has set others going, and now in all parts of the country Page men are winning bets and applause by going through the "wide-mouthed" fences. *The Coiled Spring* tells more about it.

The Page Wire Fence Co. (Ltd.), Walkerville.



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There are some townships where we have as yet no agent, and if your boys are running the farm, and you want some additional work to do, you might take an agency. If you want to know a little more about the Page without investing, just send you address on a postal card and we will send you our illustrated monthly paper free.

**THE PAGE WIRE FENCE CO. OF ONTARIO (LTD.)**  
**WALKERVILLE, Ontario.**

# FARMING SUPPLEMENT

OCTOBER, 1895.

## Toronto Industrial.

*JERSEYS.—Continued from page xxvi of FARMING.*

*Awards.*—Bull, aged—1st, Isaac Holland, Culloden; 2nd, W. H. & C. H. McNish, Lyn; 3rd, J. N. Green Shields, Danville, Que. Bull, two years old—Isaac Holland. Bull, yearling—1st, Wm. Butler & Son, Dereham Centre; 2nd, J. N. Green Shields. Bull calf—1st and 3rd, W. H. & C. H. McNish; 2nd, J. N. Green Shields. Bull, of any age Isaac Holland (May's Rosebery). Cow, aged—1st, W. H. & C. H. McNish; 2nd and 3rd, J. N. Green Shields. Cow, three years old—1st and 2nd, W. H. & C. H. McNish; 3rd, J. N. Green Shields. Heifer, two years old—1st, 2nd, and 3rd, W. H. & C. H. McNish. Heifer, yearling—1st and 2nd, W. H. & C. H. McNish; 3rd, J. N. Green Shields. Heifer, calf—1st, Robert Moody & Son, Guelph; 2nd, J. N. Green Shields; 3rd, W. H. & C. H. McNish. Herd—1st, W. H. & C. H. McNish; 2nd, J. N. Green Shields. Female, of any age—W. H. & C. H. McNish (Ada of Eastview).

*Judge*—T. S. Cooper, Coopersburg, Pa.

*HOLSTEINS.*—The breeders of the black and whites were again to the front in great force, and the expert judge, Mr. C. R. Payne, Hamilton, N.Y., was kept busy all day, for it was no easy task to pick the winners in such company. The aged bull class brought out seven competitors, and after a careful examination, 1st went to the silver medal bull of last year, Emery Prince, shown by A. Hoover, Jr. He is one of the largest bulls we have ever seen shown in a dairy class, his weight being no less than 2,250 lbs., and yet he shows his dairy points all over and handles like a glove. Last year's winner in this section only gave place to his younger rival after a close fight, coming in 2nd, while 3rd went to C. J. Gilroy & Son for Inka Kathleen's cow, Messrs. Rice's bull, a 2nd-prize winner at Chicago, coming in 4th. Only two bulls were shown in the two-year-old class, and the red ticket went to G. W. Clemons for Netherland Consul, a son of Netherland Statesman's Cornelius, A. C. Hallman's 2nd prize aged bull. Netherland Consul, who was also awarded the sweepstakes, is undoubtedly a grand bull. He has the wedge shape so indicative of milking properties, and a beautiful yellow skin that handles to perfection. His owner may well be proud of his success when we remember that among the aged bulls he competed with were no less than four former 1st-prize bulls at Toronto. Second in this class went to Ellis Bros. for a very useful bull, a grandson of the famous show bull, Sir Archibald. Four promising yearling bulls in the next class were placed as follows: 1st to A. Hoover, Jr., for Baron Witzdy, a son of the Chicago winner, Siepkje Mink Mercedes Baron, and the 1st prize calf last year. This yearling weighs no less than 1,400 lbs. Second went to A. C. Hallman; 3rd, to McDuffee & Butters for a promising son of their famous Artis Peer; and 4th to A. & G. Rice. Out of sixteen bull calves, in the next class, the winner was found in Messrs. Rice's Sir Paul de Kol Clothilde, imported in dam last year. This calf is a great-grandson of Messrs. Yeoman's famous cow, Pauline Paul. He has a beautiful, rich, yellow skin, and shows every indication of doing credit to his breeding. Second place fell to G. W. Clemons for White Prince, and 3rd and 4th to A. C. Hallman for a very useful pair sired by Netherland Statesman's Cornelius. The class for aged cows brought out eighteen, Messrs. Rice being unable to show their famous cow, Eunice Clay, owing to her having sprained her leg. In her absence the judge had no difficulty in placing the red ticket on McDuffee & Butters' grand cow, Trintje, a winner in Holland in a class of forty. This cow was in good form, and showed a capital udder and well-shaped excutcheon. After some deliberation, the blue went to Maud Tensen, a daughter of the famous Cornelia, shown by Ellis Bros., while Oxford Jewel, the property of C. J. Gilroy, came in 3rd, 4th going to Lady Akkum, recently imported by G. W. Clemons from Messrs. H. Stevens & Son, of Lacona, N.Y. In three-year-olds G. W. Clemons scored 1st with Madge Merton, the 3rd-prize yearling at Chicago, while A. Hoover captured the blue ticket with Emery Beauty, a capital stamp of a dairy heifer with a good excutcheon and what promises to make a fine udder, although she is hardly as good a handler as the 1st prize heifer. Third went to A. C. Hallman and 4th to A. & G. Rice, who also were awarded 2nd in the two-year-old class for a very nice heifer, Jewel Mercedes Artis Queen. This heifer has just dropped her second calf, having given 40 lbs. of milk after her first calf. In this class G. W. Clemons took 1st with a granddaughter of the great De Kol II.; 3rd going to C. J. Gilroy for a small but very neat heifer with a nice vessel, and 4th to Messrs. Rice. Yearling heifers were a large class, sixteen coming forward, the winner being the 1st prize calf last year at Rochester, recently imported by G. W. Clemons; 2nd going to A. C. Hallman, 3rd to C. J. Gilroy, and 4th to Ellis

Bros. for a daughter of Maud Tensen. First for heifer calves again went to the De Kol II. family, G. W. Clemons winning with a great granddaughter of the old cow's; 2nd to Bright Promise, one of Messrs. Rice's 2nd-prize two-year old heifer; 3rd to R. S. Stevenson for a very useful-looking daughter of Royal Canadian Netherland; and 4th to Messrs. Rice. No less than ten herds were entered for the herd prize, and, finally, the coveted honors went to A. Hoover's herd, headed by Emery Prince, G. W. Clemons coming second, Ellis Bros. 3rd, and A. & G. Rice 4th. In the class for bull and four of his progeny any age, 1st place went to A. C. Hallman's grand old stock bull, Netherland Statesman's Cornelius, although R. S. Stevenson pushed him hard with his old stable companion, Royal Canadian Netherland, and four beautiful calves, two of either sex. A. & G. Rice came in 3rd with Siepkje Mink Mercedes Baron, and the Stanstead herd 4th with Artis Peer. G. W. Clemons was fortunate enough to pull off both the sweepstakes for best male and female with the two-year-old bull, Netherland Consul, and the three-year-old cow, Madge Merton.

*Awards.*—Bull, aged—1st, A. Hoover, Jr., Emery; 2nd, A. C. Hallman, New Dundee; 3rd, C. J. Gilroy & Son, Glen Buell; 4th, A. & G. Rice, Curries. Bull, two years old—1st, G. W. Clemons, St. George; 2nd, Ellis Bros., Bedford Park. Bull, yearling—1st, A. Hoover, Jr.; 2nd, A. C. Hallman; 3rd, McDuffee & Butters, Stanstead, Que.; 4th, A. & G. Rice. Bull calf—1st, A. & G. Rice; 2nd, G. W. Clemons; 3rd and 4th, A. C. Hallman. Bull, of any age—G. W. Clemons (Netherland Consul). Cow, aged—1st, McDuffee & Butters; 2nd, Ellis Bros.; 3rd, C. J. Gilroy & Son; 4th, G. W. Clemons. Cow, three years old—1st, G. W. Clemons; 2nd, A. Hoover, Jr.; 3rd, A. C. Hallman; 4th, A. & G. Rice. Heifer, two years old—1st, G. W. Clemons; 2nd and 4th, A. & G. Rice; 3rd, C. J. Gilroy & Son. Heifer, yearling—1st, G. W. Clemons; 2nd, A. C. Hallman; 3rd, C. J. Gilroy & Son; 4th, Ellis Bros. Heifer calf—1st, G. W. Clemons; 2nd and 4th, A. & G. Rice; 3rd, R. S. Stevenson, Ancaster. Herd—1st, A. Hoover, Jr.; 2nd, McDuffee & Butters; 3rd, Ellis Bros.; 4th, A. & G. Rice. Bull and four of his progeny—1st, A. C. Hallman; 2nd, R. S. Stevenson; 3rd, A. & G. Rice; 4th, McDuffee & Butters. Female, of any age—G. W. Clemons (Madge Merton).

*Judge*—C. R. Payne, Hamilton, N.Y.

### MILK TEST.

Special prize of \$100, given by the Exhibition Association and the Holstein Association (\$50 each), for the cow being the largest producer at the fair—1st, C. J. Gilroy & Son (Holstein); 2nd, R. Reford, St. Anne de Bellevue, Que. (Ayrshire).

### Sheep.

*SHROPSHIRE.*—This favorite breed again led in numbers, there being almost 100 entries in the various sections, the Thorncliffe Farm alone having fifty head on the ground. A pleasing feature of this class was that in many of the sections the Canadian-bred sheep were quite able to hold their own against the imported, and it is interesting to note that a large proportion of the homebred winners were the produce of the noted rams Newton Lord and Wool Merchant, probably two of the best breeding rams we have had in Canada. In aged rams last year's winner, John Campbell's Chancellor, by Newton Lord, was again 1st, James Cooper & Son taking 2nd with a useful sheep bred by T. S. Minton, and D. G. Hamner & Son 3rd with a homebred sheep, a son of old Wool Merchant. In the shearing class John Miller & Son won 1st and 3rd places with two of their recent importation, the 1st prize going to a lengthy, even ram with a good fleece and a nice pink skin, bred by John Harding, and winner of 2nd at the Shropshire and West Midland Show; the 3rd-prize ram being one of the highly-commended pen of five at the same show, bred by H. G. Parker. Second place went to John Campbell for another get of Newton Lord, out of a 1st-prize ewe at Chicago. In this class James Cooper & Son were given an H.C. for a ram recently imported from T. S. Minton. This ram, in the opinion of some good judges, should have been higher up. He handles well, has a good back and loins, and a nice fleece. Altogether, he shows plenty of true Shropshire character, and had he been a bit better in his skin, he would have been a dangerous competitor for 1st place. In ram lambs John Miller & Son again scored, winning 1st with a lamb out of Mr. J. L. Foster-Harter's 2nd-prize pen at the Royal, and a rare good lamb he is, the judges declaring him the best ram in the show. He has a grand back and loin, and a capital leg of mutton, meat to his hocks, with a well-covered head and a nice bright skin. Altogether, he is a lamb that is sure to be heard of again, and our only regret is that he is leaving the country, having been sold to John M. Levering. Second and third in this class went to John Campbell for a nice pair of homebred lambs, and 4th to Robert Davies, also for a homebred lamb, of very fine quality, that will make a useful shearing, as he has not, so far, been pushed to any ex-

lent. In aged ewes D. G. Hamner & Son were 1st with a grand pair of ewes, brought out in beautiful shape, Thorncliffe Farm 2nd with a nice stylish pair that had evidently not been pushed very hard, as they both had raised lambs; and John Campbell 3rd with a pair of his own breeding. In the next class John Miller & Son were again to the front with the 3rd-prize pen at the Royal and the Shropshire and West Midland shows; John Campbell 2nd with a very nice, well-matched pair by the Erldy ram, Settler; and James Cooper & Son 3rd with a big upstanding pair of imported ewes from the Montford flock. Ewe lambs brought out some excellent specimens, Messrs. Hamner & Son finally getting the red for what we thought an uncommonly nice pair, sired by old Wool Merchant. John Miller & Son won 2nd with a pair of H. G. Parker's breeding, never shown before, and John Campbell and R. Davies 3rd and 4th respectively. In the open pen class John Miller & Son were 1st with a pen headed by their 1st-prize ram lamb, with D. G. Hamner & Son 2nd, while the 1st prize for the best Canadian-bred pen went to John Campbell, who showed his shearing ram and four beautifully-matched ewes, all by Settler; Messrs. Hamner again winning 2nd with five shearlings, all by Wool Merchant. In the American Shropshire special, any age, John Miller & Son showed their 1st-prize yearling ram, 1st-prize shearing ewes, and 2nd-prize ewe lambs, winning 1st; Hamner & Son coming in a good 2nd with their 3rd-prize aged ewe, 1st-prize aged ewes, and 1st-prize ewe lambs. For the best pair of lambs, American-bred, Hamner & Son came in 1st with four lambs of nice quality; 2nd going to John Campbell, who, by the way, we understand, bred every sheep he exhibited.

*Awards.*—Ram, aged—1st, J. Campbell, Woodville; 2nd, J. Cooper & Son, Kippen; 3rd, D. G. Hamner & Son, Mount Vernon. Shearing ram—1st and 3rd, J. Miller & Son, Brougham; 2nd, J. Campbell, Woodville. Ram, lamb—1st, J. Miller & Son, 2nd, J. Campbell; 3rd, J. Cooper & Son; 4th, R. Davies, Toronto. Two aged ewes—1st, D. G. Hamner & Son, 2nd, R. Davies; 3rd, J. Campbell. Two shearing ewes—1st, J. Miller & Son; 2nd, J. Campbell; 3rd, J. Cooper & Son. Two ewe lambs—1st, D. G. Hamner & Son; 2nd, J. Miller & Son; 3rd, J. Campbell; 4th, R. Davies. Pen—1st, J. Miller & Son; 2nd, D. G. Hamner & Son. Pen, Canadian-bred—1st, J. Campbell; 2nd, D. G. Hamner & Son. Pen (prizes given by American Shropshire Registry Association)—1st, J. Miller & Son; 2nd, D. G. Hamner & Son. Flock-four lambs, one ram and three ewe lambs, American-bred—1st, D. G. Hamner & Son; 2nd, J. Campbell.

*Judges.*—M. Levering, Lafayette, Ind.; R. Gibson, Delaware.

**COTSWOLDS.**—As we should expect, when Ontario's flockmasters gather together, there will be a superb exhibit, and that of 1895 was no exception to this general rule. Perhaps Cotswolds were hardly up to the average in strength as compared with former years. There were only a few newly imported sheep, and the expectation that English wool winners would take the best of it evidently kept several prominent breeders from being present, hence the light showing. W. Thompson, Uxbridge, and Heber Rawlings, Ravenswood, forwarded the heaviest end of the exhibit, and they showed some good specimens of their own breeding. John Miller & Son, Brougham, had an imported ram lamb and two pair of imported shearing ewes, and a pair of ewe lambs, while a balance was made up by the imported shearing ram exhibited by C. T. Garbutt, Claremont, who also showed two aged rams. P. W. Boynton and Alex. Watt also had a few specimens.

*Awards.*—Ram, aged—1st, W. Thompson, Uxbridge; 2nd, C. T. Garbutt, Claremont; 3rd, H. Rawlings & Son, Ravenswood. Shearing lamb—1st, H. Rawlings & Son; 2nd, W. Thompson; 3rd, C. T. Garbutt. Ram lamb—1st, J. Miller & Son, Brougham; 2nd and 3rd, W. Thompson; 4th, H. Rawlings & Son. Two aged ewes—1st, J. Miller & Son; 2nd, W. Thompson; 3rd, H. Rawlings & Son. Two shearing ewes—1st, W. Thompson; 2nd, J. Miller & Son; 3rd, H. Rawlings & Son. Two ewe lambs—1st, J. Miller & Son; 2nd and 3rd, H. Rawlings & Son; 4th, W. Thompson. Pen—J. Miller & Son. Pen, Canadian-bred—1st, W. Thompson; 2nd, H. Rawlings & Son.

*Judges.*—J. Teasdale, Concord; W. Rae, Arkell.

**LEICESTERS.**—Leicesters were the strongest class that we have seen for a number of years. Not only did a number of prominent breeders take part in the competition, but the sheep were well prepared, and plenty of good breeding character was to be found in the specimens on exhibition. John Kelly, Shakespeare, so long noted as a class leader in this well-tried sort, had forward even a better lot than usual. They had good meaty tops, plenty of size, and good coats. E. Gault & Sons, St. Helens, were also exhibitors of some capital sheep, possessing lots of size and grand handlers, and a handsome lot they were. J. S. Smith, Maple Lodge, was also a prominent exhibitor. This flock has always displayed careful breeding, and this year his exhibit was especially strong. William Whitelaw, Guelph; C. & E. Wood, Freeman; and Abram Easton, Appleby, also had some good specimens forward.

*Awards.*—Ram, aged—1st, J. Kelly, Shakespeare; 2nd, J. S. Smith, Maple Lodge; 3rd, W. Whitelaw, Guelph. Shearing ram—1st, J. Kelly; 2nd, J. S. Smith; 3rd, W. Whitelaw. Ram,

lamb—1st, W. Whitelaw; 2nd, 3rd, and 4th, J. Kelly. Two aged ewes—1st, J. Kelly; 2nd, J. S. Smith; 3rd, W. Whitelaw. Two shearing ewes—1st and 2nd, J. Kelly; 2nd, J. S. Smith. Two ewe lambs—1st and 2nd, J. Kelly; 3rd and 4th, W. Whitelaw. Pen—1st, J. Kelly; 2nd, W. Whitelaw. Pen, Canadian-bred—1st, J. S. Smith; 2nd, J. Kelly.

*Judges.*—M. McArthur, Lobo; John Mason, Princeton.

**LINCOLNS.**—This breed made a nice showing, as one might expect when Gibson & Walker and W. Oliver represent this capital long-woolled sort. About thirty-five entries of handsome, nicely-fitted sheep had been forwarded by these two exhibitors.

*Awards.*—Ram, aged—1st, W. Oliver, Avonbank; 2nd and 3rd, Gibson & Walker, Denfield. Shearing ram—1st and 2nd, Gibson & Walker; 3rd, W. Oliver. Ram lamb—1st, 3rd, and 4th, Gibson & Walker; 2nd, W. Oliver. Two aged ewes—1st, Gibson & Walker; 2nd and 3rd, W. Oliver. Two shearing ewes—1st, W. Oliver; 2nd and 3rd, Gibson and Walker. Two ewe lambs—1st, 3rd, and 4th, W. Oliver; 2nd, Gibson & Walker. Pen—1st, W. Oliver; 2nd, Gibson & Walker. Pen, Canadian-bred—1st, Gibson & Walker; 2nd, W. Oliver.

*Judges.*—M. McArthur, Lobo; John Mason, Princeton.

**OXFORD DOWNS.**—Three flocks of this handsome, medium-woolled sheep were on exhibition, and made a nice showing. James Tolton, Walkerton; Smith Evans, Gurook; and Peter Arkell, Teeswater, all had large exhibits. The former had a nice imported ram lamb, which he had recently received from the flock of Mr. Brassey, which won first in his class, while all exhibitors had forwarded nicely prepared sheep, principally of their own breeding.

*Awards.*—Ram, aged—1st, P. Arkell, Teeswater; 2nd, Smith Evans, Gurook; 3rd, J. Tolton, Walkerton. Shearing ram—1st, Smith Evans; 2nd, P. Arkell; 3rd, J. Tolton. Ram lamb—1st and 2nd, J. Tolton; 3rd and 4th, Smith Evans. Two aged ewes—1st, 2nd, and 3rd, P. Arkell. Two shearing ewes—1st, P. Arkell; 2nd, Smith Evans; 3rd, J. Tolton. Two ewe lambs—1st, Smith Evans; 2nd and 4th, J. Tolton; 3rd, P. Arkell. Pen—1st, P. Arkell; 2nd, Smith Evans. Pen, Canadian-bred—1st, P. Arkell; 2nd, Smith Evans. Pen of lambs of either sex (prizes given by the A.O.D. Association)—1st, J. Tolton; 2nd, Smith Evans; 3rd, P. Arkell. Shearing ram—1st, Smith Evans; 2nd, P. Arkell. Pair shearing ewes—1st, P. Arkell; 2nd, Smith Evans.

*Judges.*—S. H. Todd, Wakeman, O.; S. Lemon, Kettleby,

**HAMPSHIRE DOWNS.**—J. Kelly, Shakespeare, first prizes for aged ram, shearing ram, and two shearing ewes.

**SOUTHDOWNS.**—John Jackson & Sons, Abingdon; T. C. Douglas, Galt; A. Telfer & Son, Paris; Robert Shaw & Son, Glanford Station; and George Baker & Son, Simcoe, brought out some seventy head of this capital mutton sort, and they were in great form. Some lambs in every one of the flocks were extra good. Dried-out pastures had not had any effect in keeping back this easily fed sort.

*Awards.*—Ram, aged—1st and 2nd, J. Jackson & Son, Abingdon; 2nd, T. C. Douglas, Galt. Shearing ram—1st and 3rd, J. Jackson & Son; 2nd, T. C. Douglas. Ram lamb—1st and 2nd, J. Jackson & Son; 3rd, A. Telfer & Son, Paris; 4th, T. C. Douglas. Two aged ewes—1st, J. Jackson & Son; 2nd, T. C. Douglas; 3rd, R. Shaw & Son, Glanford Station. Two shearing ewes—1st, J. Jackson & Son; 2nd and 3rd, R. Shaw & Son. Two ewe lambs—1st and 3rd, J. Jackson & Son; 2nd, T. C. Douglas; 4th, R. Shaw & Son. Pen—1st, J. Jackson & Son; 2nd, R. Shaw & Son. Pen, Canadian-bred—1st, J. Jackson & Son; 2nd, T. C. Douglas. Two lambs, one ram and one ewe, recorded in the American Southdown Record—1st, J. Jackson & Son.

*Judges.*—R. L. Burgess, Burgessville; A. Simenton, Blackheath.

**DORSET HORNED SHEEP.**—Twenty-five entries had been forwarded in this class, and when the prolific qualities of these sheep become better known we may expect a larger representation. This variety is noted in England for high-class mutton, while the late Industrial attests to the value of its wool, as the prize for medium wool went to a fleece from a shearing ewe shown by R. H. Harding, Thorndale, who, together with John A. McGillivray, furnished the bulk of the exhibit.

*Awards.*—Ram, aged—1st and 3rd, J. A. McGillivray, Uxbridge; 2nd, R. H. Harding, Thorndale. Shearing lamb—1st, R. H. Harding; 2nd and 3rd, J. McGillivray. Ram lamb—1st and 3rd, J. A. McGillivray; 2nd, R. H. Harding. Two aged ewes—1st, R. H. Harding; 2nd and 3rd, J. A. McGillivray. Two shearing ewes—1st, R. H. Harding; 2nd and 3rd, J. A. McGillivray. Two ewe lambs—1st, R. H. Harding; 2nd and 3rd, J. A. McGillivray. Pen—1st and 2nd, J. A. McGillivray. Pen, Canadian-bred—1st, R. H. Harding; 2nd, J. McGillivray.

*Judge.*—G. Everett, Mt. Vernon.

**MERINOS.**—Merinos were made up of the flocks of W. M. & J. C. Smith, Fairfield Plains, and Robert Shaw & Son, Glanford Station.

*Awards.*—Ram, aged—1st, W. M. & J. C. Smith, Fairfield Plains; 2nd and 3rd, R. Shaw & Son, Glanford Station. Shearing ram—1st and 3rd, R. Shaw & Son; 2nd, W. M. & J. C. Smith. Ram lamb—1st and 3rd, W. M. & J. C. Smith;

2nd, R. Shaw & Son. Two aged ewes—1st, R. Shaw & Son; 2nd and 3rd, W. M. & J. C. Smith. Two shearing ewes—1st and 2nd, R. Shaw & Son; 3rd, W. M. & J. C. Smith. Two ewe lambs—1st and 3rd, W. M. & J. C. Smith; 2nd, R. Shaw & Son. Pen—1st, R. Shaw & Son; 2nd, W. M. & J. C. Smith.

*Judge*.—G. Everett, Mt. Vernon.

**FAT SHEEP**.—Two fat wethers, two shears and under, long-woolled breed—1st, J. Campbell, Woodville. Two fat wethers, two shears and over, short-woolled breed—1st, W. H. B-attie, Wilton Grove. Two fat wethers, two shears and under, short-woolled breed—1st, J. Campbell; 2nd, A. Telfer & Son, Paris.

*Judges*.—C. S. Col'ard and J. Mallon, Toronto.

**WOOL**.—Coarse combing (Cotswold)—1st, J. C. Snell, Edmonton. Medium combing (Lincoln and Leicester)—1st, E. Gaunt & Son, St. Helens. Medium fine (Shrops., Dorset and Oxford types)—1st for teg and ewe, R. H. Harding, Thorndale; 2nd for teg and ewe, R. Davies, Toronto. Super (Southdown)—1st for ewe and 1st for teg, George Baker & Son, Simcoe; 2nd for teg, J. Jackson & Son, Abingdon; 2nd for ewe, T. C. Douglas, Galt. Fine, Merino grades—1st for teg and ewe, W. M. & J. C. Smith, Fairfield Plains. Clothing wool, best 20 fleeces, white, from grade sheep—W. H. Beattie, Wilton Grove.

*Judges*.—Alex. McLean, Carleton; D. McCrae, Guelph.

**Swine.**

This department was, as usual at the Industrial, well filled with prime specimens of each of the numerous breeds.

**BERKSHIRES**.—This famous breed were stronger, numerically, than we have seen them for the last three years, there being some seventy entries, while there was as decided advance in all round quality. Messrs. J. G. Snell & Bro. led off with twenty-four entries, headed by their grand aged boar, Baron Lee 4th. Another right good one is Lord Ross. In yearling boars they showed Regalia, a particularly good one, while in the sections for both boars and sows under six months stock by Baron Lee 4th gave abundance of promise for the future usefulness of this grand boar. They had forwarded two capital sows in Royal Lady and Lady Oxford, mother and daughter, while their yearling sows were much admired. Messrs. Snell's pigs displayed grand length, smoothness of finish, and aptitude for quick feeding. H. J. Davis, Woodstock, was also a large exhibitor in this class, having eighteen entries. His aged boar was in fine form, and his length and neat finish, while a good yearling, by Royal Herbert is of the right stamp, as also is a boar under six months. The sows were also a good lot, and completed a capital display of this popular English breed. Among other exhibitors were A. J. Watson, Castleton; Thomas Teasdale, Concord; Simmons & Quirie, Ivan, and P. W. Bovnton, Dollar.

*Awards*.—Boar, aged—1st and 2nd, J. G. Snell & Bro., Edmonton; 3rd, H. J. Davis, Woodstock. Boar, over one and under two years—1st, J. G. Snell & Bro.; 2nd, H. J. Davis. Boar, over six and under twelve months—1st and 2nd, J. G. Snell & Bro.; 3rd, H. J. Davis. Boar, under six months—1st and 3rd, J. G. Snell & Bro.; 2nd, H. J. Davis. Sow, aged—1st and 2nd, J. C. Snell & Bro.; 3rd, T. Teasdale, Concord. Sow, over one and under two years—1st and 3rd, J. G. Snell & Bro.; 2nd, Simmons & Quirie, Ivan. Sow, over six and under twelve months—1st and 2nd, J. G. Snell & Bro.; 3rd, H. J. Davis. Sow, under six months—1st and 2nd, J. C. Snell & Bro.; 3rd, H. J. Davis. Boar and two sows—1st and 2nd, J. G. Snell & Bro. Boar and four of his get, under six months old—J. G. Snell & Bro. Sow and four of her produce, under six months old—J. G. Snell & Bro.

*Judges*.—J. Main, Milton; R. Dorsey, Burnhamthorpe.

**IMPROVED YORKSHIRES**.—These topped the list in numbers, there having been ninety of these handsome white pigs entered by ten exhibitors. J. E. Brethour had fifteen entries, including his great boar, Dominion, which was placed in the lead in the aged section, Oak Lodge Diamond being third. In younger boars, J. E. Brethour secured a third each for pigs under and over six months. Oak Lodge Primrose is one of the best specimens of a Yorkshire sow yet exhibited. In each of the other sections J. E. Brethour showed fine specimens, scoring first in three sections for sows, and also winning the premium for boar and four of his get under six months. Jos. Featherston, M.P., exhibited a strong herd, winning two red tickets in the sections for boars, one red for sows, together with the family prize for sow and four of her offspring, all the younger pigs being of his own breeding and beautifully brought out. The Isafeigh Grange herd had suffered from the previous week's campaign and the long run by rail to Toronto, but a number of their specimens were very much admired. Levi Bowles, Springvale, forwarded some beautifully fitted specimens. His pigs under six months were particularly good, having length, finish, and quality difficult to beat. H. J. Davis, Woodstock, was also among the fortunate exhibitors, and had some capital specimens present.

*Awards*.—Boar, aged—1st and 3rd, J. E. Brethour, Bur-

ford; 2nd, J. Featherston, M. P., Streetsville. Boar, over one and under two years—1st and 3rd, J. Featherston; 2nd, H. J. Davis, Woodstock. Boar, over six and under twelve months—1st, J. Featherston; 2nd, H. J. Davis; 3rd, J. E. Brethour. Boar, under six months—1st, L. S. Bowles, Springville; 2nd, J. Featherston; 3rd, J. E. Brethour. Sow, aged—1st, J. E. Brethour; 2nd, J. Featherston; 3rd, J. N. Greenshields, Danville, Que. Sow, over one year and under two—1st and 3rd, J. Featherston; 2nd, J. E. Brethour. Sow, over six and under twelve months—1st, J. E. Brethour; 2nd, J. N. Greenshields; 3rd, J. Featherston. Sow, under six months—1st and 2nd, J. E. Brethour; 3rd, J. Featherston. Boar and two sows—1st, J. E. Brethour; 2nd, J. Featherston. Boar and four of his get, under six months old—J. E. Brethour. Sow and four of her produce, under six months old—J. Featherston.

*Judges*.—J. E. Cousins, Harriston; James Anderson, Guelph.

**POLAND-CHINAS**.—This breed had some forty representatives, in which were some as handsome specimens as we have yet seen. W. & H. Jones, Mt. Elgin, were the largest exhibitors, leading off with their imported boar over two years, which they purchased of that noted breeder, Willis E. Gresham, Kansas. A smoothly-finished pig he is, while the young things sired by him are very good indeed. Three of the four first premiums for boars were sent to their herd. Three of the four first premiums for sows were also given them, while the prizes for boar and two sows and both family prizes went to swell the grand list put to their credit. The estate of the late Frank Row had forwarded some nicely-fitted specimens. A capital boar under the year scored a red, while a sow of the same age carried the same honor. Other good ones also carried off honors, completing a very well-brought-out exhibit. W. M. & J. C. Smith, Fairfield Plains, one of the oldest exhibitors in this sort, won a number of premiums on some choicely selected stock.

*Awards*.—Boar, aged—1st and 2nd, W. & H. Jones, Mount Elgin. Boar, over one year and under two—1st and 3rd, W. & H. Jones; 2nd, W. M. & J. C. Smith, Fairfield Plains. Boar, over six and under twelve months—1st, F. Row; 2nd and 3rd, W. M. & J. C. Smith. Boar, under six months—1st and 2nd, W. & H. Jones; 3rd, W. M. & J. C. Smith. Sow, aged—1st and 2nd, W. & H. Jones; 3rd, W. M. & J. C. Smith. Sow, over one and under two years—1st, W. & H. Jones; 2nd, F. Row, Avon; 3rd, W. M. & J. C. Smith. Sow, over six and under twelve months—1st, F. Row; 2nd, W. & H. Jones; 3rd, W. M. & J. C. Smith. Sow, under six months—1st, 2nd, and 3rd, W. & H. Jones. Boar and two sows—1st and 2nd, W. & H. Jones. Boar and four of his get, under six months—W. & H. Jones. Sow, and four of her produce, under six months—W. & H. Jones.

*Judge*.—S. H. Todd, Wakeham, O.

**CHESTER WHITES**.—Of this white American variety there were fifty-six entries, comprising a lot of pigs brought out in good form by W. Butler & Son, Dereham Centre; H. George & Sons, Crampton; R. H. Harding, Thorndale; and D. DeCoursey, Bornholm. The first-mentioned herd had forward some eighteen entries in fine show condition, which carried three reds in the sections for boars, several second and third prizes for sows, and the family prize for sow and four of her produce under six months. H. George & Sons had a beautifully fitted lot, and won first for aged boar, first for sow under two years, first for boar and two sows, and boar and four of his get under six months. R. H. Harding had entered some very neat boars in the two younger sections, and a grand aged boar which took first, while D. DeCoursey had a strong second in aged boars, a capital pig over six months, and two grand specimens in the sections for sows over and under six months, which both won first premiums.

*Awards*.—Boar, aged—1st, H. George & Son, Crampton; 2nd, D. DeCoursey, Bornholm; 3rd, W. Butler & Son, Dereham Centre. Boar, over one and under two years—1st, W. Butler & Son; 2nd, H. George & Son. Boar, over six and under twelve months—1st, W. Butler & Son; 2nd, R. H. Harding, Thorndale; 3rd, D. DeCoursey. Boar, under six months—1st, W. Butler & Son; 2nd and 3rd, R. H. Harding. Sow, aged—1st, R. H. Harding; 2nd, W. Butler & Son; 3rd, D. DeCoursey. Sow, over one and under two years—1st, H. George & Son; 2nd, W. Butler & Son; 3rd, D. DeCoursey. Sow, over six and under twelve months—1st, D. DeCoursey; 2nd, H. George & Son; 3rd, W. Butler & Son. Sow, under six months—1st, D. DeCoursey; 2nd, H. George & Son; 3rd, W. Butler & Son. Boar and two sows—1st, H. George & Son; 2nd, W. Butler & Son. Boar and four of his get, under six months—1st, H. George & Son. Sow and four of her produce, under six months—1st, W. Butler & Son.

*Judge*.—S. H. Todd, Wakeham, O.

**TAMWORTHS**.—This bacon breed was not as strong numerically as last year, several prominent breeders being absent but the sixty entries included some grand specimens, while the whole exhibit was in fine form. Walter Elliott, Hamilton, led off with Glen Sandy, a boar that tips the beam at something over 900 lbs., while his wonderful deep ribs, great length, and smoothness, pronounce him an ideal pig of the breed. This

Hamilton herd was also well represented in the yearling boar, Barton Pride, and other boars in the sections for yearlings and pigs under six months, while, although the sows in each of the older sections were rather too young, they were capital specimens of the breed. H. George & Sons, Crampton, showed a beautifully-fed lot of pigs. Their aged boar and boar over one year were both first-class animals, while in the section for pigs over and under six months they were, if anything, still better represented. In sows they had several extra good individuals, while they won both family prizes. The estate of the late Frank Row brought out a prime lot of Tamworths, including a good aged boar, the winning boar under one year, and a capital six-months-old pig, which won second. This herd brought out two winners in both sections for over two and between one and two years, while the prize sow and two sows went to their pens.

*Awards*.—Boar, aged—1st, W. T. Elliott, Hamilton; 2nd, H. George & Son, Crampton; 3rd, F. Row, Avon. Boar, over one and under two years—1st, W. T. Elliott; 2nd and 3rd, H. George & Son. Boar, over six and under twelve months—1st, F. Row; 2nd, H. George & Son; 3rd, W. T. Elliott. Boar, under six months—1st and 3rd, H. George & Son; 2nd, F. Row. Sow, aged—1st, F. Row; 2nd, H. George & Son. Sow, over one and under two years—1st, F. Row; 2nd, H. George & Son; 3rd, W. T. Elliott. Sow, over six and under twelve months—1st and 2nd, H. George & Son; 3rd, F. Row. Sow, under six months—1st and 2nd, H. George & Son; 3rd, P. W. Boynton, Dollar. Boar and two sows—1st, F. Row; 2nd, H. George & Son. Boar, and four of his get, under six months—1st, H. George & Son. Sow, and four of her produce, under six months—1st, H. George & Son.

*Judges*.—J. C. Cousins, Harriston; James Anderson, Guelph.

**DUNG-JERSEYS.**—Of this breed of American red pigs three exhibitors brought out forty entries. Tape Bros., Ridgeway, led with their aged boar, Duke of Kent, and carried first in the section for boars over one year, and again led with a capital sow over two years, while the family prizes were put to their credit. Wm. Butler & Sons, Dereham Centre, had a capital boar in each of the younger sections, both of which carried a red, and they repeated this in the sections for sows both under and over one year, while the prize for boar and two sows was also claimed by them. H. George & Sons, Crampton, showed some nice good specimens, leading in the younger sections for sows, and winning a good share of the honors in several of the older sections.

*Awards*.—Boar, aged—1st, W. Butler & Son, Dereham Centre; 2nd and 3rd, Tape Bros., Ridgeway. Boar, over one and under two years—1st, Tape Bros.; 2nd, W. Butler & Son; 3rd, H. George & Son, Crampton. Boar, over six and under twelve months—1st, W. Butler & Son; 2nd, Tape Bros. Boar, under six months—1st, W. Butler & Son; 2nd and 3rd, Tape Bros. Sow, aged—1st and 3rd, Tape Bros.; 2nd, H. George & Son. Sow, over one and under two years—1st, W. Butler & Son; 2nd and 3rd, Tape Bros. Sow, over six and under twelve months—1st, W. Butler & Son; 2nd, Tape Bros.; 3rd, H. George & Son. Sow, under six months—1st, H. George & Son; 2nd and 3rd, Tape Bros. Boar and two sows—1st, W. Butler & Son; 2nd, Tape Bros. Boar and four of his get, under six months—1st, Tape Bros. Sow and four of her produce, under six months—1st, Tape Bros.

*Judge*.—S. H. Todd, Wakeham, O.

**ESSEX**—In this old English breed of pure black pigs the majority of the honors were held by Joseph Featherston, M. P., while Mrs. A. B. Cooper, Islington, and R. T. Duck, Port Credit, both took a hand in the winnings.

*Awards*.—Boar, aged—1st, Mrs. Cooper, Islington. Boar, over one and under two years—1st, J. Featherston, Streetsville; 2nd, Mrs. Cooper. Boar, over six and under twelve months—1st, R. T. Duck, Port Credit; 2nd, Mrs. Cooper. Boar, under six months—1st and 3rd, J. Featherston; 2nd, Mrs. Cooper. Sow, aged—1st and 2nd, J. Featherston; 3rd, Mrs. Cooper. Sow, over one and under two years—1st and 2nd, J. Featherston; 3rd, Mrs. Cooper. Sow, over six and under twelve months—1st, R. T. Duck; 2nd and 3rd, Mrs. Cooper. Sow, under six months—1st and 2nd, J. Featherston; 3rd, Mrs. Cooper. Boar and two sows—1st and 2nd, J. Featherston. Boar and four of his get, under six months—1st, J. Featherston. Sow and four of her produce, under six months—1st, J. Featherston.

*Judges*.—G. Green, Fairview; R. Vance, Ida.

**SUFFOLKS**.—Forty heads had been entered, and here the winnings were divided between Robert Dorsey and Joseph Featherston, M. P.

*Awards*.—Boar, aged—1st and 2nd, R. Dorsey, Burnhamthorpe; 3rd, A. Frank & Son, The Grange. Boar, over one and under two years—1st and 2nd, J. Featherston, Streetsville; 3rd, R. Dorsey. Boar, over six and under twelve months—1st and 3rd, R. Dorsey; 2nd, J. Featherston. Boar, under six months—1st and 2nd, R. Dorsey; 3rd, A. Frank & Son. Sow, aged—1st, R. Dorsey; 2nd, J. Featherston; 3rd, A. Frank & Son. Sow, over one and under two years—1st and 3rd, J. Featherston; 2nd, R. Dorsey. Sow, over six and under twelve months—1st, 2nd, and 3rd, R. Dorsey. Sow, under six months—1st, 2nd, and 3rd, R. Dorsey. Boar and two sows—1st and 2nd, R. Dorsey.

Boar and four of his get, under six months—R. Dorsey. Sow, and four of her produce, under six months—R. Dorsey. *Judges*.—G. Green, Fairview; R. Vance, Ida.

## Poultry.

In the poultry department, as in other branches, the Industrial Exhibition eclipsed all previous years. The birds shown numbered somewhere about 2,600, and the quality of the stock was, without a doubt, higher than that previously seen at any exhibition in Canada. Indeed, I doubt if such a grand display was ever seen anywhere in America at this season of the year. Old birds were in very good condition; chicks, in some instances, were small, but more than made up for this by the quality they possessed. The department was in charge of the old reliable superintendent, Mr. C. J. Daniels, and the wants of the birds and of the exhibitors were well looked after. Only three assistants were allowed him. This is not adequate to the ever-increasing duties which devolve upon that gentleman, and I trust that next season he will have, at least, one more man. A powerful disinfectant was used liberally, which helped to keep down any smell, and prevented disease. A large number of fowl had to be shown in exhibitors' own coops, the immense building proving inadequate to allow of all the birds being displayed in the association's pens. There is a strip of vacant land between the present building and the railway track, and it is to be hoped that next year this will be taken in, and accommodation provided for the cage birds and incubators. This year both incubators and cage birds were exhibited in the new wing, but this did not prove as satisfactory to the committee as they would have liked. The incubators were placed on the floor in the centre of the building, and so large was the entry that they had to be crowded together, and not sufficient space was allotted to the exhibitors to properly look after the workings of the machines. Furthermore, each manufacturer had to stand outside the railing and discuss the merits of his production with a would-be customer, with the result that often the crowd carried both customer and manufacturer off with them, and the customer was seen no more. Then, too, the cage birds were placed above these machines on shelves, and the gas not of the purest, the fumes from the lamps, doubtless, not being as exhilarating as the exhibitors would have liked for their pets. More room is badly needed, and, I trust, in view of the fact that the poultry is the best paying branch of the live stock, that this will be provided by next year. Perhaps it is not generally known that the entry fees in poultry alone are more than in cattle and sheep combined, more than in sheep and swine combined, while for every dollar received in entry fees for horses, cattle, sheep, and pigs, somewhere about \$3.50 is paid out in prize money, whereas in poultry only \$3.16 is paid out for every dollar of entry fees received. This is certainly not a fair division.

The display of incubators and brooders was the best ever seen in Canada. Mr. T. A. Willits, Toronto, manufacturer of "The Toronto Incubator and Brooder," succeeded in carrying off the medal against a large number of exhibitors. His brooder was a grand one.

I will endeavor to give a concise and exact report of the winning birds in the larger and more important classes, and interested parties can see the names of the winners published below. The exhibits of Messrs. Wm. McNeil, Richard Oke, T. J. Keiley, Allan Bogue, James Arthur, and George G. McCormick, London; Thomas A. Duff, Jacob Dorst, H. Essex, J. L. Corcoran, and Wm. Barber, Toronto; J. E. Meyer, Kossuth; Wm. Main, Milton; John Pleisch, Shakespear; Thomas Rice, Whitby; E. McCormick, Newmarket; W. J. Haycraft, Agincourt; John Lawrie, Malvern; Kent & Oldrieve, Kingston; W. T. Gubbard, Napanee; J. R. Devins & Co., Emory; A. E. Blunck, Johnstown, N.Y.; Miss Kate L. Clark, Auburn, Mass.; Mr. Westfall, Sayre, Pa.; and Webber & Robertson, Guelph, were particularly fine. From time to time we will publish engravings of some of the winners, and will also give a more extended report of the individual birds which we illustrate. The artist was unable to have the engravings finished for this issue.

The following papers were represented: *FARMING, Reliable Poultry Journal, Canadian Poultry Review, American Fancier, Poultry Monthly, Farmer's Advocate, and the Stock-keeper.*

Messrs. Kent & Oldrieve, Kingston, won the "McMaster" medal for best Barred Plymouth Rock male; Mr. Thomas A. Duff, Toronto, the "McMaster" medal for best Minorca female; and Mr. J. E. Meyer, Kossuth, the "Duff" medal for best collection of Silver Wyandottes.

The directors on Friday gave a luncheon to the poultry exhibitors, during which Mr. Duff made a short address.

The following is a description of the winners: Light Brahmans.—Cocks: First, a nice bird of good color splendid striped hackle, neat comb; second, also a good bird, but seems to me to be not of the typical Brahma shape. Hens: First, an old winner, that does



not require description; second, a neat hen; third, close. Cockerels: First, a grand bird, good size, neat comb, nice hackle; second and third, good. Pullets were a nice class. It would be hard to particularize. Breeding pens were very good indeed.

Dark Brahmans.—This class, as a whole, did not strike me as favorably as other years.

Buff Cochins.—Cock: First, a grand bird shown in splendid condition, good comb, nice even color all over, fine legs; second and third both close up. Hens: First, a grand, dark colored bird, with good leg and toe feather, fine head; second and third were of an entirely different color, much lighter, grand shape. Cockerels: First, a fine big fellow, yet a little lanky on account of not being matured, good leg and toe feather, nice head; second, close after first. Pullets, a fine lot, winners being extra. Breeding pens were very excellent.

Partridge Cochins were a nice class all over. The first-prize cock and hen were particularly good. The first and second pullets look like sisters.

Black Langshans.—I do not think this exhibit is the equal of last year; chicks are rather poor. Cocks: First, a typical Langshan, good color; second, a nice one, but lacks on saddle. Hens: First, nice all over, with the exception of leg and toe feathering; others only medium. Cockerels: First, a nice little bird, very small; second, poor in back, lacks breast. Pullets: These were quite small, and it is hardly worth while referring to them in detail. Breeding Pens: First, cock a nice breeding bird; hens were good, two of them in particular; second pen had a nice cock bird, but the hens were not in shape.

White Langshans.—With the exception of the winning pullet, the class seemed to me to be a very poor one.

Colored Dorkings.—Cocks: First, a fine large bird, with a very good color; second also a good one, would probably have exchanged places with first had comb not been over; third, a nice bird. Hens: First, a real large one, good color all over; second, a fine big one, and close after winner. Cockerels: First, a nice bird, with a rather poor comb; second, another nice one, better comb than first, but not so matured. Pullets: First and second were grand birds, but the same owner might also have had third place.

Silver Gray Dorkings.—Cocks. First, a fine bird, with a good comb, good color throughout; second, another nice bird, would probably have beaten first were it not for a frozen comb; third, well up. Hens: First, a grand bird, with good color all over; in fact, one of the best I have seen; second and third, good. Cockerels: First, a nice bird, good color, rather poor comb, a bit white in lobe. Pullets: First, a very nice one all over; second, also a good one; and third, close. Breeding pens were very good. Both prizes going to Silvers, I think. There should be a class for Coloreds, as they have no chance competing against Silvers.

Lo Flecho.—The first old birds were of high merit, being large in size, rich in color, and fine head points, would be hard to beat anywhere. Chicks were not as well grown as in previous years, especially the pullets. Creve-Cœurs were small in number, but surpassed the other French varieties in quality, both adults and chicks being very large and full of excellent points.

Black Wyandottes.—Cocks: First, splendid color, good comb, a little too small; second lacked shape, good head. Hens: First, a grand hen, good comb, large, fine Wyandotte shape, good head; second, good shape, but too high in tail. Cockerels: First, a good bird, but a little long in back, good legs and color; second close up, but not so fully matured. Pullets were a nice lot, especially first.

White Wyandottes.—Cocks: First and second close, both good Wyandotte shape, first in better condition than second. Hens: A nice class; first and second good Wyandottes. Cockerels not so well matured as we have seen, but good all over; second more matured than first, but lacked in style and shape. Pullets were a real good class, but not so matured as we have formerly seen. Breeding pens: Only one shown, and that only fair.

Silver Wyandottes.—Cocks: First, a grand Wyandotte in shape, lacks a little in breast, good head, nice color, but not yet moulted out; second not so good in shape, and out of feather; third lacked in neck and saddle. Hens: First, a splendid bird, grand shape, and good color, free from outside facing; second and third close up. Cockerels: First, a nice bird, grand saddle, off in breast color; second is a good Wyandotte, but is off in ear lobes; third, fair. Pullets: First, a nice-marked bird, good open centres, well grown, good legs, and nice shape; third lacked in back and breast, not so matured as winners. Breeding pens. First, a nice lot of birds, cock rot in good shape, but hens first-class; second had a good shaped cockerel; pullets a bit smutty on back, but a real good Wyandotte shape.

Golden Wyandottes.—Cocks: First, a grand Wyandotte all over. Breeders of this variety should look more to undercolor in males. Hens: First, good open

centres, but out of condition; second, grand color, good open centres, but a small bird; third, a nice one. Cockerels. First, a good one all over, hard to beat anywhere, well marked, rich in color, good legs; second, a good one; third well up.

Barred Plymouth Rocks.—This was an excellent class. The young birds were particularly fine; in fact, I doubt if a better lot of birds were ever shown anywhere at such an early date. Cocks: First, a very nice bird, in fairly good feather, nice shape, fair color, too much tail; second, a good bird, nice head, not yet moulted out, or might have been first; third, a nice-shaped bird, but entirely out of showing condition. Hens: First, a good bird all over, and in full bloom; second, a little light in color, but in real good feather; third, a good hen, with splendid legs and beak, not fully moulted, new feathers that are in well barred. Cockerels: First, a nice-colored bird, good shape, rather poor comb; second, a good-colored bird, lacking in breast color, grand head, splendid-colored legs and beak, not so matured as first; third, a nice-colored bird all over, good-colored legs and beak, at present a bit weak on legs. Pullets: First and second, the best that have been shown for years, little to choose between the two; second had better undercolor than first, but took second place on account of not being so well matured; third, a nice pullet, well barred, good shape, but lost her color a little. Breeding pens: First contained a cockerel which was a grand-shaped Rock, good beak, good head and legs. Three grand pullets, one especially fine in markings and shape, grand head and legs; others close up, but not so richly colored. All the birds in this pen have grand-colored legs. Second, three hens and a cockerel, one especially good hen, others fairly good, not in good shape; cockerel, fair. Plenty of birds left that would win almost anywhere, except at the Industrial.

White Plymouth Rocks.—Cocks: First, a nice bird, pure white color, good Rock shape, good head, lacks a little in breast, well shown; second close up, but lacks a little in breast, and is a bit straight in back, shown in splendid trim; third, good. Hens: Not quite as good as usual. First, good white Rock, lacks in comb; second, a grand bird, good legs and beak, very ragged in feather. Cockerels: First, well shown, good head, a little short in leg, but well matured; second, a grand white cockerel, good beak, best bird in show if more matured. Pullets: First, a grand pullet, beautiful color, good head and legs, grand Rock shape, well grown, one of the best seen this season; second, a good pullet, not so white in plumage nor so well matured as first, a little high in tail; balance of the class good. Breeding pens: First, a good pen all round, but cock is out of shape; second is also a good pen.

Buff Plymouth Rocks.—No old birds were shown; young stock very good indeed. Cockerels: First, a nice bird, good color all over, fair head, good legs, a little dark in wing; second also a good bird, not so even in color as first; third, uneven surface color. Pullets: First, a nice bird, but hardly as good in undercolor as an unnoticed one, which was too dark on the outside; second, a nice little bird of good color; third close up. Games were a good class all round. Messrs. Barber, and Kent & Oldrieve, and Main fully held up their end with Mr. A. E. Blunck, of Johnstown, N.Y. The first black-red cockerel and the first brown-red pullet were exceptionally good. The first prize Indian Game cock was a very fine large bird of grand color, and in good fit.

Hamburgs were a grand class all through. The winners in Black were fine, particularly first cockerel. In Silver Spangles, the first cockerel and pullet were undoubtedly the best seen in Canada for years. Golden were also excellent.

Red Caps.—A grand class all through, especially the winning cock and hen.

Javas.—A nice class; chicks not well matured.

White Leghorns.—Cock: First, a nice bird with a good face, a little rough in lobe, good color throughout; second, a nice show bird, smaller than first, good comb, a little too creamy in color; third, good. Hens: First, a nice one, small comb, good color, grand Leghorn type; second also nice bird; third, close. Cockerels: First, a beautiful bird, good color throughout, nice comb; second, close up; third, small. Pullets: First, a good, nice color and shape; second and third, good birds.

Brown Leghorns.—Cocks: First, a nice bird, a shade white in face and slightly torn in wattles; second, a nice large bird, good color; third, close. Hens were a good class, the winners being all of good color. Cockerels: First, a grand bird, beautiful comb, nice color; second, right after first, little to choose between them. Pullets were well matured, and very good indeed all over.

Rose Comb Brown Leghorns were a nice lot of birds, the winners being particularly fine.

Rose Comb White Leghorns.—Cocks: First, an old winner, grand head, good shape, has won six or seven consecutive firsts, including New York; second, good.

Hens were a tidy lot, and fit to win anywhere. Cockerels and pullets were well shown and of a good color.

Buff Leghorns brought out an immense class of grand birds. Unquestionably we have never seen better in Canada. Cocks: First, a grand bird, good comb, nice face, clean buff all over; second, not so good. Hens: First, a nice buff hen, probably a shade too light; others good. Cockerels. First, a grand bird of good color from head to tail; second and third were also good; second was a true Leghorn. Pullets: First, a large, well-matured bird of good shape and color, nice comb; second and third also good. Breeding pens: Very close between first and second. I was particularly pleased to see the competition so keen, and I trust it is a forerunner of large exhibits of this variety.

Spanish.—This class was an excellent one, and of the best quality seen in Canada for many years past. Cocks: First, a grand bird, but a little out of shape, splendid clear face, good comb, good legs, and nice Spanish shape; second, good shaped Spanish, long face but coarse, comb over; third, a pretty good bird, nice comb, but coarse in face. Hens: First, a good hen, nice face, small comb, good Spanish shape, second, not nearly so good, has a very large face, but quite coarse; third, good, but lacks in condition. Cockerels: First, a splendid bird, nice smooth face; second, close up; third, well grown, but is altogether too coarse in face. Breeding pens: First, an easy winner, good all through; second, off in color of face, too yellow.

Andalusians.—Cocks: First, a grand bird, lacks a little in face color, good shape, and splendid even color all over, the best bird that has been shown in Canada for some years; second, a long way off, off in shape, not so good in color. Hens: First, a splendid one all over, evenly laced, nice color; second, a good one, very close to first, a large bird. Cockerels: First, a large, well-grown bird, fair comb, a little off in hackle; second, a grand bird, but not fully matured. Pullets: First, a nice bird, but off in comb; second, not so matured, a little smoky.

Black Minorcas.—One of the largest and best classes ever seen anywhere; competition was very keen. Cocks: First, a grand headed bird, true Minorca shape, immense large comb, but perfectly straight on head, grand red face, well-shaped lobes, and good color throughout; second, a large bird, well up on legs, grand, small comb, bright red face, nice lobes, wattles have been torn a little, splendid color, large, well-spread tail; third, an immense big fellow with grand face and lobes, comb over in the back; balance of class very good. Hens: First, an immense big one, nice evenly-serrated comb, still holds her old feathers, but she is good in color. This hen won the "McMaster" medal. Second, a beautiful hen, perfect comb, good face and lobes, nice color throughout, crow's first close, but is not so large; third has grand lobes. One seldom sees such good, pure white ones on a hen, grand plumage, but not fully moulted. Cockerels: First, the best ever seen at this season of the year, grand color, large, well-spread tail, full, round breast, nice comb, fair lobes; second, a much smaller and younger bird, has a fair comb, nice lobes, poor wattles, well up on leg; third, a nice small one. Pullets: First, a beauty, grand shape and color, well grown, nice lobes; second, a nice bird, but will never be as large as first, nice face, lobes too small, light in bone, rather poor comb; third will likely make the best of the lot, just beginning to show comb, good color. There were many other pullets crowding close, not a real poor one in the class. Breeding pens: Very close between first and second: first contained a large cock, should make a good stock bird. There was one especially one hen, very large, grand body, splendid lobe, comb not out since moult; second had a good cock, but not in feather, hens good, but one had cock feathers in tail. Both good pens.

White Minorcas.—A fairly large class of good birds. Old birds were of large size. Doubtless the best class ever seen in America.

Polands were a grand lot throughout. It is not at all necessary to particularize the grand specimens shown. It is quite sufficient to say that Messrs. McNeil and Bogue were at their best.

Silkie were the best ever seen in Canada. They were much admired.

Any other variety of fowl were a nice lot, but it seemed to me that a pair of Orpingtons which were not placed should have had the tickets. A pair or two of Silver Campines were shown, but I did not care for them. They are said to be good layers.

Bantams were out in great force, and were first-class in every way.

Cage birds were grand, and out in large numbers.

Turkeys, geese, and ducks were splendid. Bronze and white turkeys were good, while Messrs. Bogue, Haycraft, Main, and Millard divided things in ducks and geese. Waterfowl were splendid and a large entry.

Incubators were there in force, the machines on exhibition being the Toronto, Peerless, Victor, the Ertel,

the Von Culin, and the Safety. The Toronto won the medal for best incubator and brooder in operation.

Appliances were out in full force, and were inspected by a large number of interested spectators.

#### AWARDS.

*Brahmas*.—Dark: Cock—1st and 2nd, Thorpe & Scott, London; 3rd, J. C. Nicholls, Uxbridge. Hen—1st and 2nd, Thorpe & Scott; 3rd, William Hodgson, Brooklin. Light: Cock—1st, E. H. Donnelly, Sandwich; 2nd, Kent & Oldrieve; Kingston; 3rd, C. Glendenning, London. Hen—1st, E. H. Donnelly; 2nd, Kent & Oldrieve; 3rd, John Cole, Hamilton.

*Cochins*.—Buff: Cock—1st and 2nd, Geo. G. McCormick, London; F. C. Hare, Whitby. Hen—1st, F. C. Hare; 2nd and 3rd, Geo. G. McCormick. Partridge: Cock—1st, R. Oke, London; 2nd, A. Bogue, London; 3rd, T. Cockburn, Hamilton. Hen—1st, R. Oke; 2nd, A. Bogue; 3rd, T. Cockburn. White: Cock—1st and 2nd, W. McNeil, London. Hen—1st and 2nd, W. McNeil. Black: Cock—1st and 2nd, Geo. G. McCormick. Hen—1st and 2nd, Geo. G. McCormick.

*Langshans*.—Black: Cock—1st, E. McCormick, Newmarket; 2nd, Kent & Oldrieve; 3rd, J. H. Paton, Toronto. Hen—1st, R. McCurdy, London; 2nd, J. H. Paton; 3rd, E. McCormick. White: Cock—1st, E. McCormick; 2nd, Jno. Cole. Hen—1st, E. McCormick; 2nd and 3rd, Jno. Cole.

*Dorkings*.—Colored: Cock—1st, A. Bogue; 2nd, John Lawrie, Malvern; 3rd, E. D. Dickenson Barrie. Hen—1st, A. Bogue; 2nd, J. L. Corcoran, Toronto; 3rd, John Lawrie. Silver Grey: Cock—1st, A. Noden, Toronto; 2nd, J. L. Corcoran; 3rd, W. Main, Milton. Hen—1st and 2nd, W. Westfall, Sayre; 3rd, J. L. Corcoran. White: Cock—1st and 2nd, A. Bogue. Hen—1st and 2nd, A. Bogue.

*Houdans*.—Cock—1st, A. Bogue; 2nd, Webber & Robertson, Guelph; 3rd, J. H. Paton. Hen—1st, A. Bogue; 2nd, L. G. Pequegnat, New Hamburg; 3rd, Kent & Oldrieve.

*Lefleche*.—Cock—1st and 2nd, R. Oke; 3rd, W. M. & J. C. Smith, Fairfield Plains. Hen—1st and 2nd, R. Oke.

*Cree-Currs*.—Cock—1st, R. Oke. Hen—1st and 2nd, R. Oke.

*Wyandottis*.—Black: Cock—1st, G. Bogue, Strathroy; 2nd, T. J. Keiley, London; 3rd, Webber & Robertson. Hen—1st, G. Bogue; 2nd, T. J. Keiley; 3rd, Webber & Robertson. White: Cock—1st and 2nd, Geo. G. McCormick. Hen—1st, Geo. G. McCormick; 2nd, Kent & Oldrieve; 3rd, A. Raffey, Doncaster. Silver-Laced: Cock—1st, Jacob Dorst, Toronto; 2nd, G. Bogue; 3rd, J. E. Meyer, Kossuth. Hen—1st, 2nd, and 3rd, J. E. Meyer. Golden-Laced: Cock—1st and 2nd, Kent & Oldrieve; 3rd, R. Oke. Hen—1st and 3rd, Kent & Oldrieve; 2nd, R. Oke.

*Plymouth Rocks*.—Barred: Cock—1st, Kent & Oldrieve; 2nd, T. A. Duff, Toronto; 3rd, L. G. Pequegnat. Hen—1st, J. E. Bennett, Toronto; 2nd, Kent & Oldrieve; 3rd, T. A. Duff. White: Cock—1st and 2nd, R. Scott, London; 3rd, Brown & Casar, Toronto. Hen—1st, S. M. Cleme & Co., Galt; 2nd, R. Scott; 3rd, J. R. Devins & Co., Emery.

*Dominique*.—Cock—1st and 2nd, G. Bogue. Hen—1st, Kent & Oldrieve; 2nd, G. Bogue; 3rd, W. McNeil.

*Games*.—Black-Red: Cock—1st, Kent & Oldrieve; 2nd, W. Main; 3rd, W. Barber & Co., Toronto. Hen—1st, F. Field, Cobourg; 2nd, A. E. Blunck, Johnstown, N.Y.; 3rd, W. Barber & Co., Brown-Red: Cock—1st, W. Barber & Co.; 2nd, A. E. Blunck; 3rd, Kent & Oldrieve. Hen—1st, W. Barber & Co.; 2nd and 3rd, A. E. Blunck. Duckwing: Cock—1st, F. Troth, Toronto; 2nd and 3rd, W. Barber & Co. Hen—1st, W. Barber & Co.; 2nd, W. Barber & Co.; 3rd, W. M. & J. C. Smith. Hen—1st, Kent & Oldrieve; 2nd, W. Barber & Co.; 3rd, W. M. & J. C. Smith. Indian: Cock—1st, Kent & Oldrieve; 2nd, J. Modlin, Hamilton; 3rd, W. T. Gibbard, Napanee. Hen—1st, Kent & Oldrieve; 2nd and 3rd, D. G. Davies. Toronto. Any other variety: Cock—1st, A. E. Blunck; 2nd, Kent & Oldrieve; 3rd, G. E. Manson, Toronto. Hen—1st, Kent & Oldrieve; 2nd, A. E. Blunck; 3rd, G. E. Manson.

*Hamburgs*.—Black: Cock—1st, W. McNeil; 2nd, Kent & Oldrieve. Hen—1st, W. McNeil; 2nd, R. Oke; 3rd, Kent & Oldrieve. Golden-Pencilled: Cock—1st, W. McNeil; 2nd, A. Bogue; 3rd, R. Oke. Hen—1st, R. Oke; 2nd, W. McNeil; 3rd, Silver-Pencilled: Cock—1st, R. Oke; 2nd, W. McNeil; 3rd, A. Bogue. Hen—1st, R. Oke; 2nd, W. McNeil; 3rd, Golden-Spangled: Cock—1st, F. Oke; 2nd, A. Bogue; 3rd, W. McNeil. Hen—1st, W. McNeil; 2nd, R. Oke; 3rd, A. Bogue. Silver-Spangled: Cock—1st, W. McNeil; 2nd, R. Oke; 3rd, J. Bogue. Hen—1st, W. McNeil; 2nd, A. Bogue; 3rd, R. Oke.

*Red Caps*.—Cock—1st, Kent & Oldrieve; 2nd, R. Grimby, Bracondale. Hen—1st, J. R. Devins & Co., 2nd and 3rd, Kent & Oldrieve.

*Javas*.—Black: Cock—1st and 2nd, G. McCormick; 3rd, J. R. Devins & Co. Hen—1st, G. McCormick; 3rd, J. R. Devins & Co. Any other color: Cock—1st, J. E. Meyer; 2nd and 3rd, Webber & Robertson. Hen—1st, J. R. Devins & Co.; 2nd, Webber & Robertson; 3rd, J. E. Meyer.

*Leghorns*.—White: Cock—1st, J. A. Laird, Brampton; 2nd, T. Rice, Whitby; 3rd, J. Pletsch, Shakespeare. Hen—1st, J. A. Laird; 2nd, J. Pletsch; 3rd, Irvine & Pierson, Weston. Brown: Cock—1st and 2nd, T. Rice; 3rd, C. Lock, Toronto. Hen—1st, T. Rice; 2nd, J. Pletsch; 3rd, R. H. Kemp, Grimby. Rose Comb, Brown: Cock—1st and 2nd, C. Glen-

denning; 3rd, R. McCurdy. Hen 1st, C. Glendenning; 2nd and 3rd, Kent & Oldrieve. Rose Comb, White; Cock, 1st and 2nd, T. J. Keiley; 3rd, W. Stewart & Son, Menie. Hen 1st and 2nd, T. J. Keiley; 3rd, W. Stewart & Son. Black: Cock—1st, T. J. Keiley; 2nd and 3rd, Dr. Manes, Sheffield. Her—1st, L. G. Pequegnat; 2nd and 3rd, Dr. Manes. Buff: Cock—1st, C. F. Wagner, Toronto; 2nd, R. H. Kemp; 3rd, T. Joy, Toronto Junction. Hen—1st, J. Cole, Hamilton; 2nd, C. F. Wagner; 3rd, T. Joy.

*Spanish*.—Cock—1st and 3rd, F. C. Hare; 2nd, J. L. Corcoran. Hen—1st and 3rd, F. C. Hare; 2nd, J. L. Corcoran.

*Andalusians*.—Cock—1st, Kate Clarke, Auburn, Mass.; 2nd, H. Tozer, London; 3rd, W. H. Reid, Kingston. Hen—1st, W. H. Reid; 2nd, J. Pletsch; 3rd, Kate Clarke.

*Minorcas*.—Black: Cock—1st, 2nd, and 3rd, T. A. Duff. Hen—1st, 2nd, and 3rd, T. A. Duff. White: Cock—1st, 2nd, and 3rd, T. A. Duff. Hen—1st, 2nd, and 3rd, T. A. Duff.

*Polands*.—White-Crested, Black: Cock—1st, A. Bogue; 2nd, W. McNeil. Hen—1st, W. McNeil; 2nd, A. Bogue. White: Cock—1st, W. McNeil; 2nd, A. Bogue. Hen—1st, W. McNeil; 2nd, A. Bogue. Silver: Cock—1st, A. Bogue; 2nd, W. McNeil. Hen—1st, W. McNeil; 2nd, A. Bogue. Golden: Cock—1st, W. McNeil; 2nd, A. Bogue. Hen—1st, W. McNeil; 2nd, A. Bogue; 3rd, A. H. Caulfield, Toronto. Buff Laced: Cock—1st and 2nd, W. McNeil. Hen—1st and 2nd, W. McNeil. Any color, unbarred, except White: Cock—1st, W. McNeil; 2nd, A. Bogue; 3rd, W. M. & J. C. Smith. Hen—1st, A. Bogue; 2nd, W. McNeil; 3rd, W. M. & J. C. Smith.

*Silky*.—Cock—1st and 2nd, H. B. Donovan, Toronto; 3rd, J. R. Devins & Co. Hen—1st and 2nd, H. B. Donovan; 3rd, J. R. Devins & Co. Any other variety Fowl: Cock—1st, A. E. Blunck. Hen—1st, R. Oke; 2nd and 3rd, A. E. Blunck.

*Bantams*.—Game, Black-Red: Cock—1st and 3rd, W. Barber & Co.; 2nd, A. E. Blunck. Hen—1st and 2nd, W. Barber & Co.; 3rd, Kent & Oldrieve. Brown-Red: Cock—1st, Kent & Oldrieve; 2nd, A. E. Blunck; 3rd, W. Barber & Co. Duckwing: Cock—1st, Kent & Oldrieve, 2nd, A. E. Blunck; 3rd, W. Barber & Co. Hen—1st and 3rd, W. Barber & Co.; 2nd, Kent & Oldrieve. Pile: Cock—1st, E. Blunck; 2nd, W. Barber & Co.; 3rd, Kent & Oldrieve. Hen—1st, Kent & Oldrieve; 2nd, A. E. Blunck; 3rd, W. Barber & Co. Any other variety: Cock—1st and 2nd, A. E. Blunck; 3rd, H. B. Donovan. Hen—1st and 2nd, H. B. Donovan; 3rd, A. E. Blunck. Cochin: Black or White: Cock—1st and 2nd, W. McNeil; 3rd, H. B. Donovan. Hen—1st, H. B. Donovan; 2nd, W. McNeil; 3rd, Chas. Stewart, Toronto. Rose Comb, Black: Cock—1st, W. McNeil; 2nd, E. Brown, Bracondale; 3rd, R. Oke. Hen—1st, R. Oke; 2nd, W. McNeil; 3rd, R. H. Marshall, Galt. Golden Sbeirght: Cock—1st, W. McNeil; 2nd, R. H. Marshall; 3rd, Kent & Oldrieve. Hen—1st, R. Oke; 2nd, W. McNeil; 3rd, Kent & Oldrieve. Silver Sbeirght: Cock—1st, W. McNeil; 2nd, R. Oke; 3rd, E. Brown. Hen—1st, R. Oke; 2nd, W. McNeil; 3rd, E. Brown. Japanese White: Cock—1st and 3rd, W. McNeil; 2nd, H. Donovan. Hen—1st and 2nd, W. McNeil; 3rd, H. Donovan. Any other color: Cock—1st, R. Oke; 2nd, W. McNeil; 3rd, J. R. Devins & Co. Fen—1st, W. McNeil; 2nd, R. Oke; 3rd, J. R. Devins & Co. Pekin: Cock—1st, R. Oke; 2nd, W. McNeil; 3rd, H. Emerick, Bridgeburg. Hen—1st, W. McNeil; 2nd, R. Oke. Polish: Cock—1st and 2nd, W. McNeil; 3rd, H. Donovan. Hen—1st and 2nd, W. McNeil; 3rd, H. Donovan. Any other variety, Ornamental: Cock—1st and 2nd, R. Oke. Hen—1st and 3rd, R. Oke; 2nd, Kent & Oldrieve.

CHICKENS.

*Brahmas*.—Dark: Cockerel—1st and 2nd, Thorpe & Scott, London. Pullet—1st and 2nd, Thorpe & Scott. Light: Cockerel—1st and 3rd, Kent & Oldrieve; 2nd, E. H. Donnelly. Pullet—1st, Kent & Oldrieve; 2nd, C. Glendenning; 3rd, John Cole.

*Cochins*.—Buff: Cockerel—1st and 2nd, G. McCormick; 3rd, F. C. Hare. Pullet—1st and 2nd, G. McCormick; 3rd, H. Emerick. Partridge: Cockerel—1st, L. G. Pequegnat; 2nd, C. Stewart; 3rd, T. Cockburn. Pullet—1st, C. Stewart; 2nd, R. Oke; 3rd, L. G. Pequegnat. White: Cockerel—1st and 2nd, W. McNeil. Pullet—1st and 2nd, W. McNeil. Black: Cockerel—1st, G. McCormick; 2nd, R. B. Millard, London. Pullet—1st and 3rd, G. McCormick; 2nd, R. B. Millard.

*Langshans*.—Black: Cockerel—1st and 3rd, R. McCurdy; 2nd, Kent & Oldrieve. Pullet—1st and 3rd, R. McCurdy; 2nd, Kent & Oldrieve. Light: Pullet—1st, E. McCormick.

*Dorkings*.—Colored: Cockerel—1st, A. Bogue; 2nd and 3rd, J. Lawrie. Pullet—1st and 2nd, J. Lawrie; 3rd, A. Bogue. Silver Grey: Cockerel—1st, A. Bogue; 2nd, W. Westfall; 3rd, W. Main. Pullet—1st, W. Westfall; 2nd, A. Bogue; 3rd, T. Benson, Doncaster. White: Cockerel—1st and 2nd, A. Bogue. Pullet—1st and 2nd, A. Bogue.

*Houdans*.—Cockerel—1st, A. Bogue; 2nd, Kent & Oldrieve; 3rd, Webber & Robertson. Pullet—1st, Kent & Oldrieve; 2nd and 3rd, Irvine & Pierson.

*Lefsches*.—Cockerel—1st and 2nd, R. Oke. Pullet—1st, W. M. & J. C. Smith; 2nd and 3rd, R. Oke.

*Crece-Cauxes*.—Cockerel—1st and 2nd, R. Oke. Pullet—1st and 2nd, R. Oke.

*Wyandottes*.—Black: Cockerel—1st, Webber & Robertson;

2nd, T. J. Keiley. Pullet—1st and 2nd, T. J. Keiley; 3rd, Webber & Robertson. White: Cockerel—1st, G. McCormick; 2nd, R. B. Millard; 3rd, G. Bogue. Pullet—1st and 2nd, G. McCormick. Silver Laced: Cockerel—1st and 3rd, J. D. Dunstan; 2nd, J. Arthur, London. Pullet—1st, J. E. Meyer; 2nd, J. Dorst; 3rd, J. Arthur. Golden-Laced: Cockerel—1st, R. Oke; 2nd, Woods Bros., Toronto; 3rd, Kent & Oldrieve. Pullet—1st, Kent & Oldrieve; 2nd, J. R. Devins & Co.

*Plymouth Rocks*.—Barred: Cockerel—1st and 3rd, Kent & Oldrieve; 2nd, T. A. Duff. Pullet—1st, Kent & Oldrieve; 2nd, T. A. Duff; 3rd, J. R. Bennett. White: Cockerel—1st, Irvine & Pierson; 2nd and 3rd, T. Rice. Pullet—1st, T. Rice; 2nd and 3rd, S. M. Clemo & Co. Buff: Cockerel—1st, T. J. Keiley; 2nd, J. Hillman, East Angus, Que.; 3rd, B. H. Essex, Toronto. Pullet—1st, T. J. Keiley; 2nd and 3rd, B. H. Essex.

*Dominique*.—Cockerel—1st, G. Bogue. Pullet—1st, G. Bogue.

*Game*.—Black-Red: Cockerel—1st, W. Main; 2nd and 3rd, W. Barber & Co. Pullet—1st, R. B. Smith, Sarnia; 2nd, W. Main; 3rd, W. Barber & Co. Brown-Red: Cockerel—1st, Kent & Oldrieve, 2nd and 3rd, W. Barber & Co. Pullet—1st and 3rd, W. Barber & Co.; 2nd, Kent & Oldrieve. Duckwing: Cockerel—1st, W. Barber & Co. Pullet—1st and 3rd, W. Barber & Co.; 2nd, A. E. Blunck. Pile: Cockerel—1st, W. McLeod, London; 2nd, A. E. Blunck; 3rd, W. Barber & Co. Pullet—1st, W. McLeod; 2nd, A. E. Blunck; 3rd, W. Barber & Co. Indian: Cockerel—1st, J. Modlin, Hamilton; 2nd, W. T. Gibbard; 3rd, M. Richardson, Hamilton. Pullet—1st and 2nd, J. Modlin; 3rd, Kent & Oldrieve. Any other variety: Cockerel—1st, Kent & Oldrieve; 2nd, J. R. Devins & Co. Pullet—1st, Kent & Oldrieve; 2nd, J. R. Devins & Co.

*Hambures*.—Black: Cockerel—1st, W. McNeil; 2nd, R. Oke; 3rd, Knight & Osborne, Bowmanville. Pullet—1st, W. McNeil; 2nd, R. Oke; 3rd, F. Essex. Golden-Pencilled: Cockerel—1st, W. McNeil; 2nd, A. Bogue; 3rd, R. Oke. Pullet—1st, W. McNeil; 2nd, A. Bogue. Silver-Pencilled: Cockerel—1st, W. McNeil; 2nd, A. Bogue. Pullet—1st, R. Oke; 2nd, W. McNeil. Golden-Spangled: Cockerel—1st, W. McNeil; 2nd, A. Bogue. Pullet—1st, W. McNeil; 2nd, A. Bogue; 3rd, R. Oke. Silver-Spangled: Cockerel—1st, W. McNeil; 2nd, A. Bogue. Pullet—1st, W. McNeil; 2nd, A. Bogue; 3rd, R. Oke.

*Red Caps*.—Cockerel—1st, J. R. Devins & Co.; 2nd, Kent & Oldrieve; 3rd, C. Grimby. Pullet—1st, J. R. Devins & Co.; 2nd, T. J. Watson, Toronto; 3rd, Kent & Oldrieve.

*Janas*.—Black: Cockerel—1st and 2nd, G. McCormick; 3rd, J. R. Devins & Co. Pullet—1st and 3rd, G. McCormick; 2nd, J. R. Devins & Co. Any other colored: Cockerel—1st and 2nd, Webber & Robertson; 3rd, J. E. Meyer. Pullet—1st, Webber & Robertson; 2nd and 3rd, J. E. Meyer.

*Leghorns*.—White: Cockerel—1st and 2nd, T. Rice; 3rd, J. A. Laird. Pullet—1st, T. Rice; 2nd and 3rd, J. A. Laird. A. Brown: Cockerel—1st and 2nd, T. Rice; 3rd, Knight & Osborne. Pullet—1st, T. Rice; 2nd, Knight & Osborne; 3rd, R. McCurdy. Rose Comb, Brown: Cockerel—1st and 2nd, Kent & Oldrieve; 3rd, C. Glendenning. Pullet—1st and 2nd, Kent & Oldrieve. Rose Comb, White: Cockerel—1st, J. Keiley. Pullet—1st, J. A. Laird; 2nd, W. J. Bell, Angus; 3rd, T. J. Keiley. Black: Cockerel—1st, R. H. Kemp; 2nd, Dr. Manes; 3rd, John Cole. Pullet—1st, John Cole; 2nd, J. R. Devins & Co.; 3rd, R. H. Kemp. Buff: Cockerel—1st, D. H. Foster, Gowanda; 2nd, J. Dundas, Deer Park; 3rd, R. J. Devins & Co. Pullet—1st, J. Dundas; 2nd and 3rd, C. F. Wagner.

*Spanish*.—Cockerel—1st and 2nd, F. C. Hare; 3rd, J. L. Corcoran. Pullet—1st and 2nd, F. C. Hare; 3rd, Knight & Osborne.

*Andalusians*.—Cockerel—1st, W. H. Dunstan, Bowmanville; 2nd, Kate Clarke; 3rd, H. Tozer. Pullet—1st, W. H. Dunstan; 2nd, Kate Clarke; 3rd, H. Tozer.

*Minorcas*.—Black: Cockerel—1st, T. A. Duff; 2nd, C. W. Wood, Toronto; 3rd, Henderson & Son, Toronto. Pullet—1st and 3rd, T. A. Duff; 2nd, J. Dundas. White: Cockerel—1st and 2nd, T. A. Duff; 3rd, J. R. Devins & Co. Pullet—1st and 2nd, and 3rd, T. A. Duff.

*Polands*.—White-Crested Black: Cockerel—1st, W. McNeil; 2nd, A. Bogue. Pullet—1st, A. Bogue; 2nd, W. McNeil. White: Cockerel—1st, W. McNeil; 2nd, A. Bogue. Pullet—1st, A. Bogue; 2nd, W. McNeil. Silver: Cockerel—1st, W. McNeil; 2nd, A. Bogue. Pullet—1st, A. Bogue; 2nd, W. McNeil. Golden: Cockerel—1st, W. McNeil; 2nd, A. Bogue; 3rd, F. Field. Pullet—1st, A. Bogue; 2nd, W. McNeil; 3rd, F. Field. Buff-Laced: Cockerel—1st and 2nd, W. McNeil. Pullet—1st and 2nd, W. McNeil. Any color, unbarred, except White: Cockerel—1st, W. McNeil; 2nd, A. Bogue; 3rd, W. M. & J. C. Smith. Pullet—1st, W. McNeil; 2nd, A. Bogue.

*Silky*.—Cockerel—1st and 2nd, H. B. Donovan. Pullet—1st and 2nd, H. B. Donovan.

*Any other variety Fowl*.—Cockerel—1st and 3rd, A. E. Blunck; 2nd, R. Oke. Pullet—1st, A. E. Blunck; 2nd, W. McNeil; 3rd, R. Oke.

*Bantams*.—Game Black-Red: Cockerel—1st and 2nd, W. Barber & Co.; 3rd, A. E. Blunck. Pullet—1st and 2nd, W. Barber & Co.; 3rd, A. E. Blunck. Game Brown-Red: Cockerel—1st and 2nd, Kent & Oldrieve; 3rd, W. Barber & Co. Pullet—1st and 3rd, Kent & Oldrieve; 2nd, W. Barber

& Co. Game Duckwing: Cockerel 1st, A. E. Blunck; 2nd, Kent & Oldrieve; 3rd, W. Barber & Co. Pullet—1st, W. Barber & Co.; 2nd, Kent & Oldrieve; 3rd, L. G. Pequegnat. Game Pile: Cockerel—1st, A. E. Blunck; 2nd, Kent & Oldrieve; 3rd, W. Barber & Co. Pullet—1st, Kent & Oldrieve; 2nd, W. Barber & Co.; 3rd, A. E. Blunck. Game, any other variety: Cockerel—1st, A. E. Blunck; 2nd, H. B. Donovan. Pullet—1st and 2nd, H. B. Donovan. Cochin, Black or White: Cockerel—1st and 2nd, W. McNeil; 3rd, H. B. Donovan. Pullet—1st and 2nd, W. McNeil; 3rd, H. B. Donovan. Rose Comb, Black: Cockerel—1st, R. Oke; 2nd, W. McNeil; 3rd, W. Barber & Co. Pullet—1st, W. McNeil; 2nd, R. Oke; 3rd, W. Barber & Co. Golden Sebright: Cockerel—1st, W. McNeil; 2nd, R. Oke. Pullet—1st, R. Oke; 2nd, W. McNeil; 3rd, W. M. & J. C. Smith. Silver Sebright: Cockerel—1st, E. Brown; 2nd, W. McNeil; 3rd, R. Oke. Pullet—1st, R. Oke; 2nd, W. McNeil; 3rd, E. Brown. Japanese, White: Cockerel—1st, W. McNeil; 2nd, H. B. Donovan. Pullet 1st, W. McNeil; 2nd, R. Oke. Japanese, any other color: Cockerel—1st, W. McNeil; 2nd, R. Oke; 3rd, J. R. Devins & Co. Pullet—1st, W. McNeil; 2nd, R. Oke; 3rd, J. R. Devins & Co. Pekin: Cockerel—1st and 2nd, W. McNeil; 3rd, R. Oke. Pullet—1st and 3rd, W. McNeil; 2nd, R. Oke. Polish: Cockerel—1st and 3rd, W. McNeil; 2nd, H. B. Donovan. Pullet—1st and 3rd, W. McNeil; 2nd, H. B. Donovan. Any other variety, Ornamental: Cockerel—1st, R. Oke. Pullet—1st and 2nd, R. Oke.

## BREEDING PENS.

*Brahmas*.—Light—1st, E. H. Donnelly. Dark—1st, Thorpe & Scott; 2nd, A. Raffey.

*Cochin*.—Partridge—1st, Thos. Cockburn. Buff—1st, G. McCormick; 2nd, F. C. Hare. Any other color—1st, W. McNeil; 2nd, G. McCormick.

*Langshans*.—1st, R. McCurdy; 2nd, E. McCormick.

*Dorkings*.—Any other color 1st, J. L. Corcoran; 2nd, A. Bogue.

*Plymouth Rocks*.—Barred 1st, T. A. Duff; 2nd, J. E. Bennett. Any other color 1st, C. Bonnick, Toronto; 2nd, Irvine & Pierson.

*Game*.—Black-Red—1st, W. Main; 2nd, W. Barber & Co. Pile—1st, W. Barber & Co. Any other color—1st, W. Barber & Co.

*Hamburgs*.—Black—1st, W. McNeil; 2nd, R. Oke. Spangled—1st, W. McNeil. Pencilled—1st, W. McNeil.

*Red Caps*.—1st, J. R. Devins & Co.; 2nd, J. O'Neil, Toronto.

*Leghorns*.—White, S.C. and R.C.—1st, J. A. Laird; 2nd, Irvine & Pierson. Brown, S.C. and R.C.—1st, Lake Bros., Toronto; 2nd, J. Pletsch. Buff, S.C. and R.C.—1st, J. Dundas; 2nd, C. F. Wagner.

*French*.—1st, E. J. Dewey, Toronto; 2nd, A. Hobbs, Bow-manville.

*Spanish*.—1st, J. L. Corcoran; 2nd, F. C. Hare.

*Polish*.—White or Black—1st, W. McNeil. Any other color—1st, W. McNeil.

*Andalusians*.—1st, W. H. Dunstan.

*Minorcas*.—Black—1st, T. A. Duff; 2nd, G. M. Haven, Toronto. White—1st, T. A. Duff; 2nd, R. Scott.

*Wyandottes*.—White or Black—1st, G. McCormick. Any other color—1st, J. E. Meyer; 2nd, J. Dorst.

*Javas*.—1st, G. McCormick.

*Indian Games*.—1st, J. R. Devins & Co; 2nd, M. Richardson, Hamilton.

*Bantams*.—Game, Black-Red—1st, W. Barber & Co. Game, Pile—1st, W. Barber & Co. Any other color—1st, W. Barber & Co.; 2nd, A. E. Blunck. Golden or Silver Sebright—1st, R. Oke; 2nd, W. McNeil. Japanese—1st, R. Oke; 2nd, W. McNeil. Pekin or Cochin—1st and 2nd, W. McNeil. Ornamental, any other variety—1st, W. McNeil; 2nd, R. Oke.

## TURKEYS.

*Bronze*.—Male—1st, W. Main; 2nd, W. J. Bell; 3rd, W. Hodgson. Female—1st, W. J. Bell; 2nd, W. Hodgson; 3rd, W. Main.

*Any other variety*.—Male—1st and 2nd, W. H. Beattie, Wilton Grove; 3rd, J. H. McKee & Co., Norwich. Female—1st and 3rd, W. H. Beattie; 2nd, J. H. McKee & Co.

## GEESE.

*Bremen or Embden*.—Male—1st, W. Main; 2nd, O'Brien & Colwell, Paris Station; 3rd, W. M. & J. C. Smith.

Female—1st, W. Main; 2nd, O'Brien & Colwell; 3rd, W. M. & J. C. Smith.

*Toulouse*.—Male—1st, A. Bogue; 2nd, W. Hodgson; 3rd, O'Brien & Colwell. Female—1st, A. Bogue; 2nd, J. Pletsch; 3rd, W. J. Haycraft, Agincourt.

*Any other variety*.—Male—1st, W. J. Haycraft; 2nd, W. H. Reid, Kingston; 3rd, J. H. Houser, Canboro. Female—1st, W. H. Reid; 2nd, W. M. & J. C. Smith; 3rd, J. H. Houser.

## DUCKS.

*Rouen*.—Male—1st, W. Main; 2nd, A. Bogue; 3rd, Knight & Osborne. Female—1st and 2nd, W. Main; 3rd, E. Brown.

*Aylesbury*.—Male—1st, A. Bogue; 2nd, J. H. McKee & Co.; 3rd, W. M. & J. C. Smith. Female—1st, A. Bogue; 2nd, J. H. McKee & Co.; 3rd, W. M. & J. C. Smith.

*Pekin*.—Male—1st, A. Bogue; 2nd, Webber & Robertson; 3rd, J. E. Meyer. Female—1st, Webber & Robertson; 2nd, A. Bogue; 3rd, W. J. Haycraft.

*Cayuga*.—Male—1st and 2nd, W. M. & J. C. Smith; 3rd, G. Bogue. Female—1st and 2nd, W. M. & J. C. Smith.

*Any other variety*.—Male—1st, W. M. & J. C. Smith; 2nd, J. H. Houser. Female—1st, W. M. & J. C. Smith.

## DIPLOMAS.

One pair of Geese, W. Main; one pair of Ducks, A. Bogue; one pair of Turkeys, W. J. Bell.

## TURKEYS OF 1895.

*Bronze*.—Male—1st, W. Main; 2nd, W. J. Bell; 3rd, W. H. Beattie. Female—1st, W. Main; 2nd, W. J. Bell; 3rd, W. H. Beattie.

*Any other variety*.—Male—1st and 2nd, W. H. Beattie; 3rd, W. M. & J. C. Smith. Female—1st and 2nd, W. H. Beattie; 3rd, W. M. & J. C. Smith.

## GEESE OF 1895.

*Bremen or Embden*.—1st, W. M. & J. C. Smith; 2nd, W. Main. Female—1st, W. M. & J. C. Smith; 2nd, W. Main.

*Toulouse*.—Male—1st, A. Bogue; 2nd, W. J. Haycraft; 3rd, W. Hodgson. Female—1st, W. J. Haycraft; 2nd, W. Hodgson.

*Any other variety*.—Male—1st, W. M. & J. C. Smith; 2nd, J. H. Houser. Female—1st, W. M. & J. C. Smith; 2nd, J. H. Houser.

## DUCKS OF 1895.

*Rouen*.—1st, W. Main; 2nd, W. J. Haycraft. Female—1st, W. Main; 2nd, A. Bogue; 3rd, E. Brown.

*Aylesbury*.—Male—1st, A. Bogue; 2nd, R. B. Millard; 3rd, Knight & Osborne. Female—1st, A. Bogue; 2nd and 3rd, R. B. Millard.

*Pekin*.—Male—1st, A. Bogue; 2nd, W. J. Haycraft; 3rd, J. E. Meyers. Female—1st, A. Bogue; 2nd, W. J. Haycraft; 3rd, J. E. Meyers.

*Cayuga*.—Male—1st, E. J. Howitt, Guelph; 2nd and 3rd, W. M. & J. C. Smith. Female—1st, E. J. Howitt; 2nd and 3rd, W. M. & J. C. Smith.

*Any other variety*.—Male—1st, J. H. Houser. Female—1st, J. H. Houser.

*Guinea Fowl*.—1st, J. R. Devins & Co.; 2nd, W. M. & J. C. Smith.

*Common Pea Fowl*.—1st, W. M. & J. C. Smith.

## SPECIALS.

Largest and best collection by one exhibitor:

*Ornamental Bantams*.—1st, W. McNeil.

*Asiatics*.—1st, G. McCormick.

*French*.—1st, R. Oke.

*Dorkings*.—1st, A. Bogue.

*Mediterraneans*.—1st, T. A. Duff.

*Games*.—1st, W. Barber & Co.

*Game Bantams*.—1st, W. Barber & Co.

*Polish*.—1st, W. McNeil.

*Hamburgs*.—1st, W. McNeil.

*Americans*.—1st, G. McCormick.

*Black Minorcas*.—Female—1st, T. A. Duff.

*Barred Plymouth Rocks*.—Male—1st, Kent & Oldrieve.

*Silver Wyandottes*.—1st, J. E. Meyer.

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Selected clean stock of the following varieties :

WHITE LEADER.....	\$1.20 per bus.
DAWSON'S GOLDEN CHAFF.....	\$1.20 per bus.
EARLY RED CLAWSON (true to name)	85 per bus.
JONES' WINTER FYFE.....	\$1.15 per bus.
SURPRISE.....	90 per bus.
GENESEE GIANT (Early).....	\$1.20 per bus.

(Cotton bags, 17 cents each. Prices above are for quantities to suit your wants. Send orders with cash enclosed by registered letter.

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Is the favorite among all Pulpers, having won all the first prizes last year; also captivated the hearts of all the stockmen who have used or seen it. It is a money winner to all concerned and a saver of time and labor to the operator, and one which sells at sight after a careful inspection, as it will either pulp coarse or fine, or slice by simply turning over the centre grate and turning crank the reverse way; and is considered in either capacity superior to any single machines.

"In short, our Pulpers have won the day,  
And orders for same are fast coming our way."

### POINTS OF MERIT.

1st.—To change from pulping to slicing is but the work of a moment, which can be done at the one feeding, with no loss of time and no trouble.

2nd.—There being two separate wheels, one for pulping and the other for slicing, each one is specially adapted for the work it has to do, with the best of knives placed in their respective wheels in a manner to obtain the very best results possible (three for slicing and six for pulping).

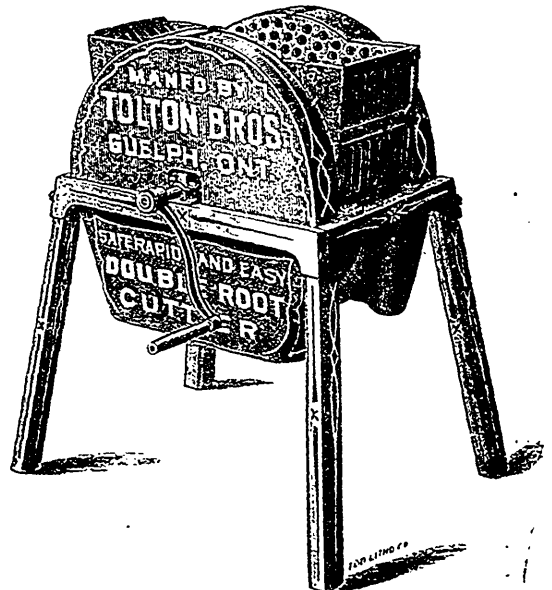
3rd.—The united force of both wheels is always used in doing the work in either capacity. This accounts for it being a steady, easy-running, and rapid root cutter.

4th.—The Hopper being between the wheels, and having large lower pockets, prevents choking, and with the knife-wheels both internally shielded makes it perfectly safe and prevents the roots from acting as a brake on the wheels, and also from jostling them about, so common in all other combined machines.

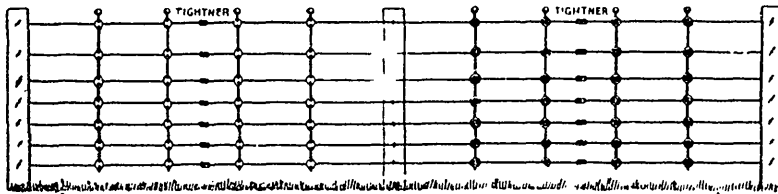
5th.—Hence the Latest and Best, and, what has been long looked for, a safe, rapid, and easy Double Root Cutter.

Soliciting your orders for same, we are, yours truly,

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No better wire fence built than the Casey Diamond Grip, Pat. Just the thing for farmers' neat, strong, and durable. Will last a lifetime, barring accidents. Uses only straight wires, with so little depression as not to cause the galvanize to crack or peel. If there is a dealer who wants something better to handle than he's



had, try it. We also supply the Double Lock Wire Fence, which is claimed by some to be second to none, the lateral wire of which, as well as the upright stay, being crimped at joints. Our agents build either on premises. Agents wanted every where in Canada, to whom sole territory will be allotted. County and township rights for sale. Our Gas Pipe Frame Gate takes the lead. No better or cheaper place in the city to get plain or fancy turning done. Call on, or address.

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# Root Pulpers and Slicers

(Single or Combined, and for Hand or Power.)

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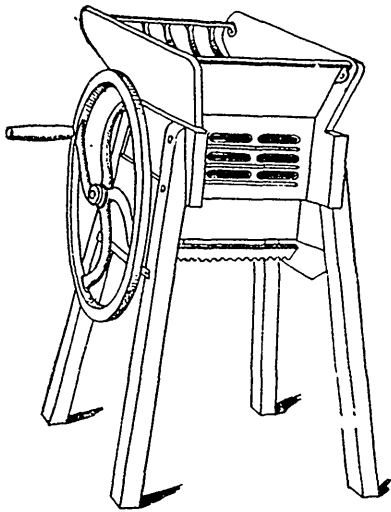
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Mention FARMING.

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Waterproof and Fireproof.



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To Repair Leaky Roofs.

Shingle, Iron, or Tin Roofs painted with it will last twice as long.

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Is put up in rolls of one square each, 40 feet long by 32 inches wide, and costs only \$2.25, including nails, thus affording a light, durable, and inexpensive roofing, suitable for buildings of every description—especially flat roofs—and can be laid by any person of ordinary intelligence.

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