

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/  
Couverture de couleur

Covers damaged/  
Couverture endommagée

Covers restored and/or laminated/  
Couverture restaurée et/ou pelliculée

Cover title missing/  
Le titre de couverture manque

Coloured maps/  
Cartes géographiques en couleur

Coloured ink (i.e. other than blue or black)/  
Encre de couleur (i.e. autre que bleue ou noire)

Coloured plates and/or illustrations/  
Planches et/ou illustrations en couleur

Bound with other material/  
Relié avec d'autres documents

Tight binding may cause shadows or distortion along interior margin/  
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/  
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Additional comments:/  
Commentaires supplémentaires:

Coloured pages/  
Pages de couleur

Pages damaged/  
Pages endommagées

Pages restored and/or laminated/  
Pages restaurées et/ou pelliculées

Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées

Pages detached/  
Pages détachées

Showthrough/  
Transparence

Quality of print varies/  
Qualité inégale de l'impression

Continuous pagination/  
Pagination continue

Includes index(es)/  
Comprend un (des) index

Title on header taken from:/  
Le titre de l'en-tête provient:

Title page of issue/  
Page de titre de la livraison

Caption of issue/  
Titre de départ de la livraison

Masthead/  
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/  
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

5570

THE

# CANADIAN LIVE STOCK



HOLIDAY  
NUMBER

1890  
JANUARY

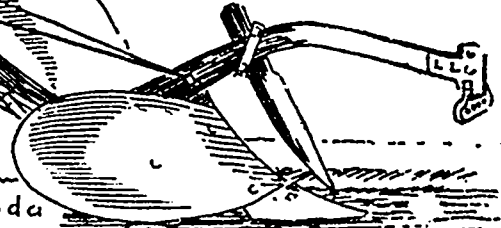
# FARM & JOURNAL



Holmes - Grilghank

CAN PHOTO-ENG. CO.

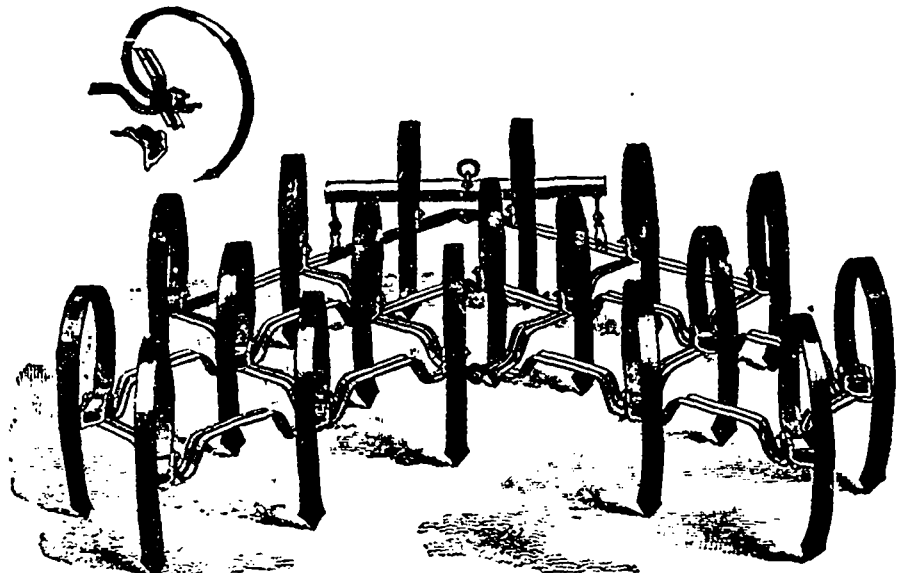
The  
JEBryant Co.  
(limited)  
Publishers  
Toronto, Canada



# WE LEAD, LET THOSE FOLLOW WHO CAN

## OUR SPECIALTIES FOR THE YEAR 1890

107299



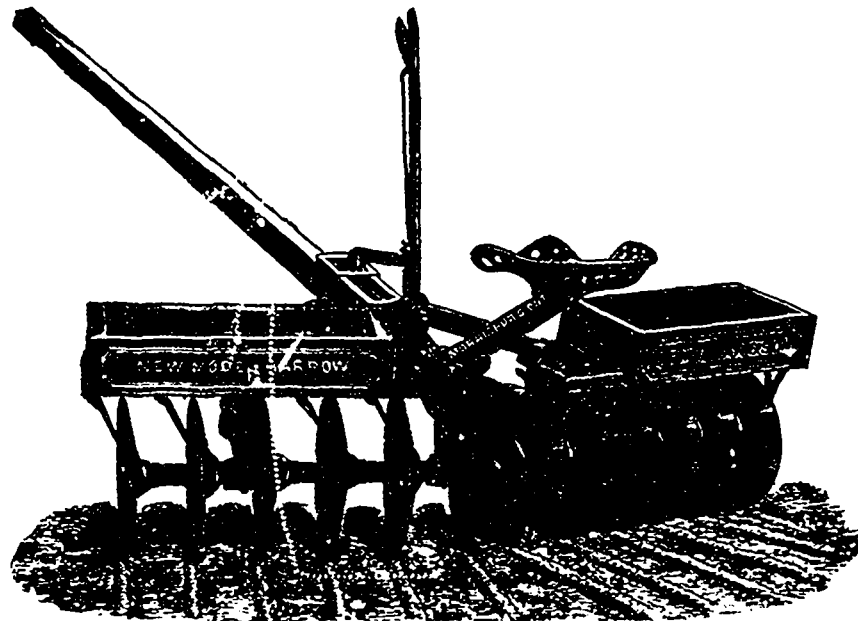
**PATENTED**  
Dec. 27th, 1887.  
July 21st, 1888.  
July 21st, 1888.

**PATENTED**  
Dec. 27th, 1887.  
July 21st, 1888.  
July 21st, 1888

**THE STEVENS PATENTED ALL STEEL ARCHED FRAME SPRING TOOTH HARROW**  
**STRONG, DURABLE, HANDSOME**

**The Stevens is the Best Spring Tooth Harrow for the Following Reasons :**

Lightest Draft Harrow in the World ; All Steel Frame, No Wood to Decay ; A Superior Tooth Holding Clip ; Spring Teeth Readily Adjusted ; Only One Nut to Loosen ; Perfect Device for Securing the Nuts ; An Arched Frame, No Clogging ; Passes all Obstructions ; Frame Rigidly Rivetted Together ; Nothing to Wear Out ; Fully Warranted and Protected by Letters Patent.



**PATENTED**  
Dec. 17th, 1885.

**PATENTED**  
Dec. 17th, 1885.

**THE "NEW MODEL" ROTARY DISC JOINTED PULVERIZING HARROW, WITH PATENT AUTOMATIC SCRAPERS**

The "New Model" during the Past Three Years in which it has been on the Market has Proved Itself the best Disc Harrow for the following Reasons

Can be set up without Hammer or Wrench ; Can be taken apart in Thirty Seconds without Hammer or Wrench ; Can be loaded into a Waggon by One Man ; Its Scrapers clean perfectly in any soil ; Its Lever changes the Angle of the Gangs easier than any other ; Its Scrapers are Automatic in their Operation ; Its Journals have no End Friction nor End Wear ; Its Scrapers operate Independently of each other ; Its Draft is not carried on the Neck Yoke ; Its Scrapers are Self-Sharpening by Wear ; Its gangs are flexible and they Run Level ; Its Scrapers clean the Discs without Attention from the Driver ; Its Draft is Lighter than any other harrow doing the same work ; Its axles are Square, and provided with Lock Nuts and Lock Washers ; Less Freight, Less hauling, Less Wear and less trouble.

Effective in Work, Simple in Construction, Durable in Wear, Convenient in Handling. Progressive farmers say that it is the very best farm implement ever produced.

We specially request every one who contemplates purchasing a Harrow of any kind to test and compare the working of these harrows by the side of any Harrow or Cultivator on the Market. it will pay you to do so. See one, Try one, Buy one and Be Happy.

We have the Sole Right to make and sell both the above Harrows in Canada. They are broadly covered by Patents. Any Infringements will be Prosecuted. Responsible Agents Wanted in every section of the Dominion of Canada, and where satisfactory will give Exclusive Agency.

**J. F. MILLAR & SON, LOCK BOX 35, MORRISBURG, ONTARIO.**



A GROUP OF CLYDESDALE STALLIONS  
IMPORTED AND OWNED BY MESSRS D. & O. SORBY, WOODLANDS FARM, GUELPH, ONT

The Canadian  
Live Stock and Farm  
Journal.

---

VOLUME VII.

. 1890.

---

TORONTO:

THE J. E. BRYANT COMPANY (Limited).

# THE CANADIAN LIVE STOCK AND FARM JOURNAL

## INDEX, 1890.

NOTE.—By reason of some unfortunate typographical errors the earlier numbers of the JOURNAL for this year were wrongly paged. The January number should have been paged from 1 to 36 inclusive, instead of from 345 to 380. Our readers will please number the pages of that issue for themselves. It will also be noted that there are no pages between 36 and 93.

Stock.	PAGE	PAGE	PAGE
Aberdeen-Angus Cattle.....	367	Cow that is Wanted, The.....	291
Adaptability of the Shorthorn.....	240	Crack Shire Stallion, A.....	96
Advanced Registry.....	219	Crib for Feeding Sheep.....	17
Advisability of a Herd Law for Ontario.....	124	Creaming Cans.....	222
Age to Breed Heifers.....	362	Crossing Pigs—Ch. er Whites and Berkshires.....	292
Age of Prize-Winners.....	334	Cutting, Curing, and Management of a Hay Crop.....	247
Agricultural Text-Book, The.....	166	Dairying in Manitoba.....	127
Annual Meeting of the Ayrshire Importers and Breeders' Association of Canada.....	220	Dairy Breeds of Cattle.....	370
Association Meetings:		Demand for Stallions, A.....	94
Ayrshire Breeders.....	129	Destroying Lice on Pigs.....	340
Hog Breeders.....	162	Development of the Trade in Lambs.....	395
Live Stock Association.....	191	Devons, The.....	101
Sheep Breeders.....	162, 337	Difficulty of Combining two Standards of Perfection.....	266
Shorthorn Breeders.....	127	Dishorning Cattle.....	286
Swine Breeders.....	338	Disqualified Stallions.....	363
Autumn Foals.....	263	Dorset Flock of Messrs. Tazewell and Hector.....	125
Autumn Management of Sheep.....	287	Doubtful Pedigree.....	222
Awrey, N., Esq., M.P.P.....	165	Draught Horse Breeders' Society, Annual Meeting of.....	7
Ayrshire Breeders' Association.....	129	Dressed Beef or Live Cattle for Export.....	397
Ayrshires of Mr. Ballantyne.....	125	Early Lambs for Market.....	595
Ayrshires of Mr. Brown.....	14	Early Market for the Best Pork, The.....	395
Ayrshires of Mr. Drummond.....	99	Economy in Feeding Stock.....	396
Ayrshires of Mr. Irving.....	14	Economy in Stock-Raising.....	288
Barley Competition.....	166, 197, 262, 361	Education of the Horse.....	163
Barn for General Farming.....	128	English Shorthorns on Native Pastures.....	368
Bates Shorthorns, History and Breeding of.....	11	Ensilage for Fattening Steers.....	215
Bath and West and Southern Counties Show.....	267	Estimation of Pedigree.....	334
Berkshires of Messrs. Snell.....	14	Exhibitions:	
Better Accommodation for Cattle Exportation.....	191	Hamilton.....	366
Better Days for the Farmer.....	337	Ottawa.....	367
Birmingham and Smithfield Champion.....	16	P. E. I. Provincial.....	366
Bone-Meal and Hardwood Ashes for Hogs.....	365	St. John, N.B.....	365
Bran for Cows on Pasture.....	222	Toronto.....	292, 239, 271, 341
Breeders of Welsh Ponies.....	222	Experimental Farm at Ottawa.....	125
Breeding Ayrshires.....	288	Export of Dressed Beef.....	394
Breeding by Paper.....	267	Extra Illustration.....	394
Breeding Dairy Stock.....	101	Facts about Pig-Feeding.....	364
Breeding for Early Maturity.....	335	Fall Litters.....	238
Breeding Sheep for Our Markets.....	397	Fall or Spring Calves.....	154
British Market for Mutton, The.....	187	False Registration.....	186
Brood Mare and Foal, The.....	214	Families of Standard-Bred Trotters, The.....	12
Brood Sows.....	341	Famous Hereford, A.....	289
Built from the Ground Upward.....	362	Fancies and Fallacies vs. Experience in Cattle.....	128
Cairnbrogie's Clydesdales.....	97	Farm Buildings.....	8
Canada Coach Horses.....	127	Farmer's Horse, The.....	244
Canadian Cattle are Healthy.....	362	Fat Cattle of the Future.....	123
Canadian Horse Breeding.....	218	Fat Stock Show, Provincial (Ontario).....	362, 364
Care of Live Stock between Summer and Winter.....	363	Fecundity.....	264
Care and Management of Brood Sows.....	339	Feeding Bulls.....	222
Care of Pastures in Summer.....	263	Feeding Calves for Beef.....	215
Carling, Hon. John, M.P.....	246	Feeding Pigs for Market.....	238
Cattle Trade, The.....	3	Feeding Trough.....	239
Champion Hackney Stallion.....	291	Feeding Working Horses.....	216
Champion Red Poll, A.....	17	Fence Law.....	293
Chester White Swine.....	293	Fleece of Wool.....	339
Choice and Care of Bulls.....	218	Forestry Matters.....	248
Choosing a Breed.....	163	Foundation Stock.....	286
Cochrane, Hon. M. H.....	10	Galloways.....	334
Color of Shorthorns, White or Red.....	293	Galloways of Mr. McCrae.....	14
Churnability of Milk Fat.....	222	Galloways of Janefeld, The.....	289
Cleaning Lands by means of the Bare Fallow.....	373	General Purpose Cow.....	100
Clover Hay for Horses.....	238	Give the Breeding Sows Liberty.....	94
Clover Hay for Pigs.....	362	Give them Three Cheers, Gentlemen.....	334
Clydesdale Association Meeting.....	129	Glasgow Stallion Show.....	159
Clydesdales of R. Beith & Co., Bowmanville.....	189	Good Word for the Devons, A.....	101
Clydesdales and Shorthorns of Mr. John Davidson, Balsam.....	190	Grading up with Ayrshires.....	243
Clydesdale Spring Stallion Show.....	160	Grain v. Stock.....	8
Clydesdale Stallion, General Lee.....	222	Grange Stock Farm, The.....	124
Clydesdale Stock Farm.....	338	Guelp Fat Stock Show.....	6
Clydesdales at Woodlands, The.....	1	Hamilton Grand Central Fair.....	366
Combined Hog and Poultry House.....	369	Haras National Stock Farm.....	99
Comments of a Rambler.....	155	Health of the Flock.....	266
Contest between the Beefing Breeds at the Ontario Experimental Farm.....	243	Herd Laws of Ontario.....	292
Cotton Seed as a Food for Stock.....	90	Herefords at The Park.....	189
		Hereford and Aberdeen-Angus Registration.....	244
		Herefords and Aberdeen-Angus of Mr. Cochrane.....	99
		Herefords and Aberdeen-Angus of Mr. Pope.....	14
		Herefords of Mr. Judah.....	14
		Herefords of Mr. Stone.....	14
		Herefords of Mr. Vernon.....	14
		Herefords on the Ranch.....	394
		Hew to the Line.....	122
		Hill, H. J.....	264
		History and Breeding of Bates Shorthorns.....	155
		Hog Breeders' Association.....	162
		Hogs for the Market.....	370
		Hog House, Plan of.....	13
		Hog Industry.....	268
		Hogs as Money-Makers.....	335
		Hog Production.....	371
		Hog-Raising in Relation to Future Agriculture.....	218
		Holiday Greetings.....	1
		Holsteins at Credit Valley Stock Farm.....	189
		Holstein-Friesian Association.....	221, 338
		Holstein Herd-Books.....	244
		Holsteins of Springbrook Stock Farm, The.....	189
		Holywell Windsor.....	237
		Hope of the Farmer in Canada.....	364
		Horns as Indicative of Character.....	15
		Horse-Breeding Experiment.....	337
		Horse-Breeding and Wheat-Raising in Manitoba.....	159
		How Shall We Increase the Fertility of our Farms.....	160
		Improved Large Yorkshires.....	192, 194
		Improving Breeds.....	362
		Improvement of Stock.....	398
		Important to Clydesdale Importer.....	130
		Increased Aid for Electoral District Exhibitions.....	123
		International Exhibition at St. John.....	365
		Jacks and Jennets.....	260
		Jersey, The.....	5
		Jerseys at the Seaside, The.....	193
		Jerseys Upheld.....	163
		Kinacroft Stock Farm.....	239
		Keep the Brood Mares in Canada.....	188
		Keeping the Boys on the Farm.....	247
		Lambs for Fattening on Rape.....	95
		Leading Herds of Manitoba.....	98
		Let There be Light in the Stables.....	335
		Letter from New Zealand.....	129
		Light Horse that Pays.....	334
		Live Stock Association.....	191
		Live Stock Insurance Companies.....	222
		London Dairy Tests.....	106, 194, 221
		Long Established Firm Strengthened, A.....	194
		Long Island Black Hawk.....	101
		Mature Sires.....	307
		Merits of the Devons, The.....	397
		Milk or Beef.....	215
		Milk Fever.....	94
		Milk in Partnership with Beef.....	341
		Mixing the Blood of Families.....	394
		More Sheep Needed on Our Farms.....	3
		New Herd Law.....	243
		New Policy of Shorthorn Breeders.....	262
		Oldenburg Coach Horse.....	371
		Ontario Agricultural College, 103, 196, 219, 297, 240.....	239, 365
		Ontario Lodge Stock Farm.....	262, 238, 285, 334, 362, 394
		Original Plans, Devices and Ideas, 2, 94, 122, 154.....	367
		Ottawa Central Fair.....	11
		Our Christmas Cheer.....	262
		Our Conditions for Beef Production.....	101
		Our Hog Competition.....	122, 154
		Our Illustrations.....	21, 93, 153, 237, 251, 285, 333
		361, 393.....	17
		Our Manitoba Budget.....	15
		Our Maritime Letter.....	153
		Our New Dress.....	93, 153
		Our Scheme.....	396
		Our Trade in Store Cattle.....	334
		Outlook for Sheep and Pigs.....	292
		Outlook for Toronto Fair.....	371
		Parasites on Pigs.....	2
		Past, Present, and Future.....	

	PAGE		PAGE		PAGE
Peas and Oats for Green Fodders	222	Water Supply for Stock	335	Gate Fastener, A	103
Pigs for Profit	7	Weight-Carrying Hunters	369	Good Word for the Hired Help	348
Placing Corn on the Free List	154	What the Aim of the Breeder of Put-Bred Dairy Stock Should Be	193	Growth and Uses of Rape, The	1 2
Plans Submitted	362	When Does a Heifer Become a Cow?	265	Hydraulic Ram, The	374
Plimsoll's Pamphlet	286	Who Knows Black Negro?	222	Importance of Early Sowing	165
Polled Durham Cattle	214	Whole Oats for Cows	162	Injured Wheat for Seed	401
Prairie Stables	192	Willows Stock Farm	99	Keeping Seed Corn	376
Prejudice Against Barley as a Stock Food, The	187	With the Stockmen	14, 99, 125, 155	Is Rape Hard on Land?	196
Preparation of Food for Stock	237	Word to Horse Breeders, A	186	Lessening the Labor and Decreasing the Expense of Silage Making	133
Production of Mutton	336	Yellow Clover	293	Lucerne Clover	166, 347
Profits on Sheep-Raising	336			Manitoba Matters	375
Profits of Swine-Feeding	365	<b>Veterinary.</b>		Mixed Farming and Mixed Farmers	132
Profitable Hog-Raising	157	Blanketing Horses	293	Mixed Grasses	402
Progress of the Jersey	242	Chronic Catarrh in Sheep	372	Mustard	134
Provincial Exhibition of P.E.I.	366	Clipping Horses	346	New Disease of Oats	15
Provincial Fat Stock Show	362, 364	Contracted Feet	371	New Fence Laws Called For	1
Public Tests of Holstein-Friesian Cows for 1889	130	Cows Eating Boards	223	Nitrogen Question and its Importance to the Farmer	19, 103
Pure-Bred Breeds of Cattle, The, 126, 216, 265, 334, 340, 399	288	Curing of Heaves	347	One Year at the O.A.C.	297
Pure-Bred Sires	221	Difficult Birth	18, 101	Ontario Agricultural College	103
Quality of Pork	154	Difficulty in Rearing Colts	164	Ontario Agricultural College Course	196
Queen's Stables, The	4	Dislocation, Case of	18	Oats	103
Questions and Answers	222, 244, 248, 268, 293	Distemper	131	Our New Premium	102
Raise the Quality of Beef	191	Does it Pay to Pasture Working Horses	244	Pleasant Visit, A	374
Raising Colt on Cow's Milk	248	Education of the Horse	223	Plowing	348
Raising Grades	96	Epilepsy amongst Cows	164	Points in Wheat Sowing	402
Rambling	189, 190, 239, 290	Epilepsy in Pigs	131	Prevention of Smut in Cereals	401
Rape-Growing and Salting Stock	162	Grease	131	Prices of Farm Produce	403
Registration of Jerseys	222	Influenza	195	Purchasing Seed Wheat	294
Removing Tusks	221	Injured Sow	347	Questions and Answers	376
Renounced Breeding Principle	362	Judging Horses	268	Raising Calves on Skim Milk	135
Responsibility of Breeders	334	Knee-Sprung Colt	223	Rape as a Cleaning Crop	295
Rosehill Stock Farm	190	Loss of Appetite	131	Ripeness of Roots	402
Rye for Pasture and Fodder	239	Management of Stallions Before and During the Season	131	Rotation of Crops	224
Save only the Best Males to Breed From	3	Mare Gnawing Wood	372	Rothamstead Experiments up to Date	348
Seed Time in Manitoba	190	Navicular Disease	401	Roup in Turkeys	376
Selection of Breeding Pigs	193	New Remedy, A	164	Salt for the Wire Worm	195
Shall We Grow Grain or Stock?	95	Patella Displaced	347	Save the Liquids	347
Sheep Breeders Association	162, 337	Questions and Answers	347, 372, 401	Seed Potatoes	132
Sheep-Breeding	156	Rubbing the Tail	102	Sequence of Rotation	372
Sheep in Canada	368	Scratches	131	Simple Gate Fastener	18
Sheep Rack, A	191	Swollen Legs	401	Something about Manitoba	296
Shipping American Cattle Through Canada	123	Thrush	372	Spontaneous Combustion	132, 294
Shipping Store Cattle to Great Britain	287	Treatment of Scratches	347	Study the Nature of Your Soil	245
Shire Stallions	222	Trouble with Pigs	132	Superintending the Earth	223, 224
Shire Horse Association	159	Tumor on Cow's Jaw	164	Tame Oats Becoming Wild	224
Shorthorn Association	127	Veterinary Work	18, 372	Testing the Vitality and Vigor of Seed Grain	133
Shorthorn Bull "Pinnacle"	150	Worms	401	Tool for Cutting Corn	294
Shorthorn Herd of Mr. Thomas McAvoy	239			Training Colts	136
Shorthorns of Mr. Edwards	125	<b>Farm.</b>		Troublesome Insect, A	103
Shorthorns of the Glen	125	Agricultural Representation in the Cabinet	372	Two Rowed Barley for the English Market	133
Shorthorns of Neidpath	125	Agriculture in Public School	405	Two Rowed Barley for Export	403
Shorthorns of Mr. Simmons	125	Another Clean Farm	297	Valuable Grasses	347
Shropshires of Fairview Farm	290	Around the Counsel Table	298, 349, 376	Victor Baling Press	296
Shropshires and Red Polls	222	Autumn Cultivation	295	Weary of Grain Growing	402
Shropshire Sheep as a Factor in the Mutton and Wool Product of America, The	398	Bag Holder, A	195	Wheat Crop and Export Cattle	404
Silos and Sheep	370	Banner Oat, The	20, 104, 134, 164	Willow as Live Fence Posts	196
Single Judge System, The	123	Beet Sugar Industry	269	Wire Fencing	224
Size and Substance in Horses	336	Better Oat Yield, A	134	Wisconsin Farmers' Institute Bulletin	196
Southdown Sheep	368	Branch Agricultural Experiment Stations	402	Wood Ashes	347
Stallion Services	101	Building a Silo in the Barn	270	Woodlands and Pastures	373
Standard-Bred Horse	290, 340	Cabbage Worm, The	245	Young Man, Be Educated	297
Stationary Sheep Rack and Feeding Trough	7	Central Farmers' Institute	132		
Stock Barn	160	Cheese Industry the Farmers' Salvation	297	<b>Around the Counsel Table.</b>	
Stock Bull, The	290	Clean Farms	270	Farmers' Institutes	298
Stud Book for Thoroughbreds	222	Clover Seed Midge	195	(1) How might the work of the Farmers' Institutes be made more effective through the exertion of the officers and members?	
Suffolk Punch, The	156, 335	Clover Sowing for 1890	164	(2) Through what means could they be made more attractive and popular?	
Suffolk Sheep	266	Comfort in Country Homes	375	(3) How might further Government assistance be given them with benefit?	
Suffolk Stallions of Mr. Sadler	190	Comments on Canadian Methods	374	Fences and Fence Laws	349
Suggestions in Regard to a Hog House	130	Corn Cultivation	196	(1) What style of fence have you found to be best in point of cheapness, durability, and utility?	
Sunnyside Shorthorns and Clydesdales	290	Corn Culture	224	(2) Do you think that any changes are desirable in regard to the present fence laws of your province, and if so, what would you suggest?	
Swine Breeders' Association	338	Corn for Ensilage	196, 376	Sheep Breeding	406
Swine Industry	3	Corn S.nut	225	(1) Give briefly six definite reasons why you would recommend the farmers of Canada to use rams of the breed you are breeding.	
Take Care of the Young Lambs	94	Destroying the Wheat Midge	372	(2) Do you consider it a profitable and good practice to use ram lambs for breeding purposes?	
Through the Winter with the Flock	363	Dominion Experimental Farms	245	(3) In your view, what are the three most important matters an inexperienced shepherd should observe in establishing a small flock for breeding and market purposes?	
Transatlantic Cattle Trade	292	Drilling or Broadcasting	402		
Treatise on Ensilage	293	Drury, Hon. Charles	269		
To be Well Shaken Before Taking	188	Dryden, John, Esq., M.P.P.	296		
To Our Friends	121	Dump Wagon, A	19		
Toronto Industrial Exhibition	239, 271	Duty on Corn	103		
Toronto Industrial Exhibition Prize List	341	Early and Late Cut Hay	245		
Turn Off the Idlers	214	Education in Farming	405		
Two Famous Colls	4	Famous Percheron Colt, A	135		
Use Gypsum	186	Farmers, Educate your Sons	405		
Value of Impressive Sires, The	3	Farmers' Institutes	18		
Value of Pedigree, The	95, 241	Farmers and the Millers, The	20		
Various Conveniences and Suggestions	218	Farmers' Wives	246		
Veterinary Book	17	Fences and Fence Laws	299		
Violent Changes to be Avoided	262	First Principles of Agriculture, The	374, 404		
Washing Sheep	187	Flax Culture	373		



Around the Counsel Table.—Continued.

(4) Through what means might sheep husbandry be further developed in Canada?	
Spontaneous Combustion.	379
(1) To what extent do you consider that spontaneous combustion would account for many cases of fire occurring in farm buildings that are commonly credited to unknown causes?	
(2) What are the essential conditions for the occurrence of spontaneous combustion?	
(3) Kindly state fully the precautions you would advise farmers to take to prevent its occurrence.	

Dairy.

Aeration of Milk.	407
American Show Yard Dairy Tests.	106
Artificial Milk-Maid, An.	409
Breeding Dairy Cows.	379
Butter Conferences.	271
Butter Conferences in Wales.	378
Butter Factories.	349
Butter for the British Market.	198
Butter for the Home and Foreign Market.	408
Butter Making.	380
Butter Manufactured from Coconuts.	377
Butter Trading in Country Stores.	407
Cheese Making.	273
Cheese Factories or Creameries?	377
Churning Whole Milk.	248
Cleanliness in Milking.	379
Common Mistakes in Buttermaking.	300
Creamery and Home Dairy.	168
Cream Raising by Dilution.	377
Dairy Barn, A.	301
Dairying.	380
Dairy Schools.	407
Dairy Test at London, The.	106
Derbyshire, D.	409
Despatch in Buttermaking.	106
Dominion Dairy Association.	168
Duration of Milking Period.	350
Early Market for Pork.	409
Feeding of Fowls.	199
Feeding Whey.	170
Harvesting of Corn for Ensilage.	272
How can we best Secure and Maintain a Wholesale Public and Private Supply of Dairy Produce?	350
Improving Value of Pure-bred Stock.	225
Milk Cooler, Aerator and Strainer.	249
Milk from Different Breeds.	168
Milk Production.	301
Milking Strains of Shorthorns.	249
Most Profitable Dairy Cow.	226
Notes on the Convention of the Creameries Association.	105
Novel Way of Obtaining Milk for Calves.	407
Ontario Creameries Convention.	21
Ottawa Dairy Test, The.	408
Pork Packing Factories.	449
Peculiar Qualities of Cotton Seed.	377
Poisonous Gas from Silo.	377
Possibilities of the Dairyman.	272
Preservation of Milk.	407
Preventible Losses.	225
Prize Cheese Made by Canadian System.	407
Production of Milk.	21
Protecting our Cheese.	198
Pure Milk.	273
Questions and Answers.	249
Rival of the Extractor.	378
Robertson, Prof. J. W.	137
Salt in the Dairy.	136
Selection of Dairy Cows.	378
Silage Distributer, A.	407
Silage Squibs.	248
Simple Method of Testing Milk.	378
Soapy Flavor of Butter.	377
Sweet Cream Butter.	198
Those London Tests.	138
Temperature in Churning.	379
Testing Milk in Creameries and Cheese Factories.	349
Valuing Milk for Cheese-Making.	300
Value of Public Dairy Tests.	137
Water and Water Power for the Dairy.	379
Winter Dairying for Ontario.	138, 170
Working Butter.	136
Barrelled Ensilage.	250

Poultry.

Breeds Classified by their Utility.	410
Characteristics of Different Breeds.	383
Chickens, their Growth and Treatment.	199
Cleanliness of Poultry.	351
Clover for Poultry.	382
Cold or Catarrh.	410
Cross-Breeding Poultry.	382
Duck Raising for Profit.	199
Dust Bath, The.	170
Eggs for the British Market.	382
Equalizing the Prices Paid for Eggs.	106
Feed Box for Poultry.	383
Feeding and Care of Chickens.	141
Feeding of Fowls.	226, 274
Feeding Poultry.	351
Fowl for the Farmer, The.	302
How to Manage an Incubator.	410
Incubator and Brooder.	411
Inbreeding Poultry.	382
Langshans.	274
Light Brahmas.	249
Moulting Season, The.	382
Our Trade in Eggs.	382
The Pekin Duck.	351
Poultry House.	139
Prize Gobler.	199
Raising Broilers.	170
Raising Chickens.	106
Rearing Geese.	382
Rules for Dressing Fowl.	410
Sacrificing Warmth for Extreme Ventilation.	410
Select and Breed Good Layers.	351
Substitute Pullets for Old Hens.	382
Turkey-Raising for Profit.	171
Vermin in the Poultry House.	410
White Holland Turkeys.	302
White Plymouth Rocks.	249

Horticulture.

After the Harvest.	384
Apple Seedlings for Pear Stocks.	411
Apple Tree Aphid.	227
Best Method of Setting out an Orchard.	200
Castor Oil Bean.	200
Celery for Market.	411
Chat about Gardens.	275
Chief Consideration in Commercial Fruit-Growing.	250
Chinese Sacred Lily, The.	303
Cold Storage Room.	140
Construction of Forcing Houses.	352
Culture of Window Plants.	412
Culture of Nuts.	412
Desirable House Plants.	384
Essentials of a Good Variety of Strawberry.	412
Export of Winter Apples, The.	412
Failure of the Fruit Crop.	352
Farmers, Grow Your Own Fruit.	275
Forestry should be Given More Attention.	275
Fruit Culture that Pays.	384
Fruit Ladder.	276
Fruits on the Farm.	139
Garden of the Farm, The.	107
Grape Culture.	171
Growing of Strawberries for Home Use.	141
Honey Locust Hedge, The.	302
May Talk, A.	200
Month of Roses.	227
Places to Plant Trees.	140
Remedy for Apple Scab.	250
Rose Culture for Beginners.	22
Spring Work in the Home Garden and Orchard.	172
Strawberries for Market.	412
Summer Pruning Grape Vines.	250
Tariff on Fruits, The.	413
Time to Prune Trees.	140
Vegetables We Use, The.	250
War Waged against the English Sparrow.	384
Windbreaks.	171
Work for July.	250
Yellow Hammer and Codling Moth, The.	411

Apiary.

Alsike Clover for Bees and Farmer.	201
Bee Notes.	201
Cure of Foul Brood.	384
Destroying Bees in the Fall.	413
Exhibitions.	303

Extirpation of Foul Brood.	352
Fairs and Exhibitions.	385
Foul Brood.	303
International Bee Association.	140
Prevention of Swarming.	251
Spring Care of Bees.	172
Trees and Bees.	172
Use of the Honey Extractor.	276

Miscellaneous.

Advertisements, 24, 109, 143, 175, 203, 228, 253, 277, 307, 354, 386, 414.	
Farmers' Daughters' Department, 107, 141, 172, 201, 227, 251, 276.	
Jottings, 23, 108, 141, 174, 202, 227, 252, 277, 304, 353, 385, 413.	
List of Fall Fairs and Exhibitions.	304
Notes from the Boys.	276
Publishers' Column, 24, 108, 142, 175, 202, 228, 253, 277.	
Stock Notes, 26, 109, 143, 175, 203, 228, 253, 277, 304, 353, 386, 413.	
Talks with the Boys.	167
Testimonials.	383
Thoughts from the Girls of the Farm.	141, 173, 201
Thoughts from the Boys for the Boys.	23, 105
Young Stockman's Department, 22, 104, 134, 166, 197, 225, 251, 276.	

Illustrations.

Frontispiece, Group of Clydesdales.	
Bag Holder.	195
Berkshire Pig, Highclere.	217
Champion Shire Stallion of England, Hitchin Conqueror.	213
Champion Colt, Axtel.	5
Champion Hackney Stallion, Rufus 1343.	201
Champion Hereford Cow, Rosewater.	289
Chinese Sacred Lily.	303
Clydesdale Stallions:	
Macneilage (2992).	93
Prince of Albion.	4
Dairy Barn Plans.	301
Dump Wagon, A.	19
Feed Box for Poultry.	383
Gate Fastener.	18
Group of Cotswolds, A.	400
Group of Galloways.	285
Group of Improved Large Yorkshires.	237
Group of Prize Winning Jerseys.	393
Group of Tamworth Pigs.	333
Hog-Raising Illustrations.	158, 159
Holywell Windsor.	
Improved Yorkshire Boar.	141
Improved Yorkshire Boar, Holywell Physician.	361
Noted Gelding Prize-Winner, Blackstone.	185
Plans:	
Barn.	128
Combined Hog and Poultry House.	369
Comfortable Country Home.	375
Dairy Barn.	301
Farm Buildings.	10
Hog House.	13
Poultry House.	139
Stock Barn.	161
Portraits:	
Awrey, N., Esq., M.P.P.	165
Carling, Hon. John.	247
Cochrane, Hon. M. H.	9
Derbyshire, D.	409
Drury, Hon. Charles.	272
Dryden, John, Esq., M.P.P.	295
Hill, H. J.	265
Robertson, Professor J. W.	137
Withrow, J. J.	292
Prairie Stables.	192
Prize Clock.	169
Production of Milk.	21
Red Polled Ox.	20
Sheep Feeding Crib.	17
Sheep Rack.	191
Shire Stallion, Prince William.	167
Shire Stallion.	153
Shorthorn Ox.	16
Silo Illustrations.	270
Silo Knife.	294
Stationary Sheep Rack and Feeding Trough.	7
Suffolk Stallion, Wedgewood (1749).	157
Tamworth Sow, Sylvia II.	261
Victor Baling Press.	296



# THE CANADIAN LIVE STOCK AND FARM JOURNAL

Devoted to the Interests of the Stock-Raisers and Farmers of Canada.

VOL. VI.]

TORONTO, JANUARY, 1890.

[No. 75

## Holiday Greetings.

However much one may be busied with the cares and turmoils of an active life, or however hard encased his heart may be, he is but a semblance of a man who cannot fling aside the most burdening business exactions, and open freely his heart to benevolence and good fellowship, for the brief space of a few short days that come but once a year. It is a season that should be marked with a stronger brotherly feeling of man to man, when enemies should forgive, and friends draw nearer to each other. Of all classes of people, to the honor of the husbandmen be it said, that no one has a more hospitable or more honorable heart than they, out of the enjoyments of the holiday season now upon us, perhaps no other of the classes that go to make up our industrial world partake less: not to the frivolous foam of our existence do we refer, but to the pure pleasures and enjoyments of gift-giving and family and friend reunions, that refresh the lagging energies and give life a brighter and happier appearance. The old year is now setting, the new will soon dawn, and when the latter auspicious event occurs, let it be welcomed with good resolutions, and the mind girded to carry them out.

We have endeavored to make THE JOURNAL in keeping with the season, and we hope its bright appearance in holiday attire may add, at least in some degree, to the enjoyment of our readers. In these brighter pages we hope our friends may find an acknowledgment on our part of the sustained interest they have manifested in our welfare, and the many earnest efforts they have put forth in our behalf. Individual independence is only possible in the rudest state of barbarism, but mutual dependence is the outgrowth of civilization—then let us be civilized to the highest degree. You should have us feel that our success is dependent on you, and we would have you feel that your success is dependent on us, so that each may work for the other with the greatest of pleasure and profit. The new year is entered upon by us with every promise of a term of greater usefulness to our readers, and we hope as each year comes and goes we may be permitted to welcome it each time with an issue of THE JOURNAL brighter, more interesting, and more instructive than its predecessors. This number will enter many thousands of country homes, Canadian and foreign, and to all we offer our heartiest wishes for holidays of the greatest enjoyment, and a new year brimful of prosperity and happiness.

## The Clydesdales at Woodlands.

About four miles from Guelph, Ont., in a southerly direction, and not far from the Waterloo road, is one of the most extensive horse-breeding establishments in the Dominion; we refer to the Woodlands, owned by the Messrs. D. & O. Sorby, whose P.O. is Gourcock, or Guelph.

The Messrs. Sorby made up their minds to go into this business four years ago, and with characteristic energy and forethought they set to work and put up the most commodious and most complete set of horse stables to be found in all Canada.

In addition to the animals that are bred in the stud, a fresh importation is brought over every year, which are selected by Mr. O. Sorby in person. The uniformly high character of the animals chosen amply demonstrate the fitness of Mr. Sorby for this department of the work. He aims at securing specimens of the first order individually, and bred from the first sires in Scotland, and steadily refuses to be tempted to purchase what is inferior because it may be had at a low price.

During the summer of 1889, no fewer than twenty-one, or twenty head were imported. In speaking of this importation as it sailed for Canada, the *Farming World* says:—The shipment of horses made last week by the Messrs. D. & O. Sorby, Guelph, Ont., is without question, one of the best selections of Clydesdales ever shipped. Mr. Oswald Sorby, who selected these horses in person, has much credit by them. They formed one of the best cargoes that ever left the Clyde.

The stud numbers some thirty-six or thirty-seven head of pedigreed horses, of which the greater portion have been imported. A large majority of them are stallions. They include animals of different ages, but much the largest number are one-year olds. A number are two-year olds, some are three, and a few individuals in the stud are older. Of the one and two year olds, both sexes are well represented.

Many of the animals in the stud are noted prize winners in both Scotland and Ontario, and judging by the great promise of the one year olds, which are an exceptionally fine lot, further and greater honors are awaiting at coming exhibitions.

Like all successful breeders of horses, the Messrs. Sorby have their ideal type. They give individuality much prominence, but reject it altogether if not accompanied by pedigree of the first order. A guarantee of the first order is thus furnished to purchasers that the horses in which they invest will prove prepotent, which is an essential of the very highest value in any breeding animal. Such famous sires as Lord Erskine (1744), Boydston Boy (111), McCamon (3818), Darnley (222), McGregor (1487), Prince of Wales (673), and Druid (1120), figure freely in the ancestry, and the blood of whom is freely blended with that of many others of the best horses in Scotland. They reject ponderous overgrown specimens, and equally shun those of the pony build. They place much store on strength of muscle, without clumsiness, and give close attention to a strong coupling, so closely associated with ability to endure; most of all, they seek for cleanness of limb, and quality of bone, accompanied with that spirit which so much enhances the value of either horse or man. When selections are thus made, with a proper and clearly defined ideal in mind, there cannot fail to be a striking resemblance in the general outline of the animals chosen, and so we find it in the Woodlands stud.

Our illustration this month represents a group of stallions selected from the Woodlands stud. The sketch, which is true to life, does credit to our artist, and is worthy of a frame and a place in every farmer's home in the land.

Standing in the lower right corner of the group is

Bold Boy (4257), by Lord Erskine (1744). As his name implies he is horse of most wonderful courage and spirit, which, combined with gigantic strength and a most wonderful activity, renders him a peer amongst his fellows. Lalla Rookh (3757), his dam, was a famous prize-winner. Bold Boy, now 5 years old, is noted as a stock horse, and along with many other prizes won second at Glasgow in 1885, and since coming to Canada was only placed second at London and Toronto to Sir Morris, also by Lord Erskine. In the opposite left lower corner is a picture of Craigevar (6639), foaled in 1887. He is brown in color, with white legs and white ratch; sired by McLellan (4564), by Macgregor (1487); he has for dam Rosebery, by Prince of Wales (673). He is two years past, possesses good shape and action, is particularly good on his feet and legs, and would probably have done well in any show had he been exhibited. The Granite (Vol. XII.) stands just opposite Craigevar on the left side. He was foaled in March, 1888, and sired by the famous Highland Society prize-winner, The Granite City (5397). He is bay in color, and beautifully formed in frame. His head and feet are particularly good, and his quarter is neatly turned. He was a prize-winner in Scotland, and was placed second at Toronto and London in 1889.

Homeward Bound is the uppermost in the right corner of the group, was foaled in May, 1888, and is a brown in color; has for sire, Knight o' Lothian (4489), and for dam, Gipsy (3630), by Young Lord Lyon (994). He is a shapely colt, with excellent limbs, which carry lots of hair, and has a nice, easy, and yet spirited gait. Placed first at London Provincial and second at Toronto, he is likely to grow into a wonderfully good horse.

Fitzmaurice (Vol. XII.), represented in left corner, opposite Homeward Bound, has for sire Sir Maurice (4721), a light bay in color. He is comely in all his parts, and though at five feet low, he gives excellent promise of much muscular power. He also is a one-year-old.

Placed between Bold Boy and Homeward Bound in the picture is Leivir Gordon (Vol. XII.), brown in color, and foaled in May, 1888. He is sired by the famous McCamon (3818), and, as was the case with his sire, his shapes are of the best. He has a sufficient head, a full broad breast, a deep shoulder, and a round and nicely curved body.

Altogether they form an admirable group, and are possessed of quality that it would be difficult to match in any single stud on the continent.

Some of the young mares in the stud are equally good with the stallions, but those desiring to know more about them, and about the stud generally, should write for a catalogue. The firm have just issued one, very full and accurate in its descriptions, and it will be forwarded on application.

Visitors are always welcome at the Woodlands, and every pains will be taken by the proprietors, whose sterling integrity and square dealing are bringing to them a large trade, to give all necessary information. It may be of some benefit to visitors coming from a distance to be reminded that Woodlands is but four miles from the Ontario Agricultural College and Experimental Farm.

THE  
**Canadian Live Stock and Farm Journal**  
 PUBLISHED MONTHLY BY  
**The J. E. Bryant Company (Limited),**  
 58 BAY STREET, - - TORONTO, CANADA.  
 Terms, \$1.00 per annum in advance.

**To Subscribers.**—The subscription price of THE CANADIAN LIVE STOCK AND FARM JOURNAL is \$1.00 a year, in advance. Single copies, 10 cents each; sample copies, free. The date to which each subscriber is paid is printed on the address-label of his JOURNAL. Subscribers continuing to take the JOURNAL from the post office after their time of subscription is expired, will be considered as desiring to renew their subscription. Notice to discontinue the JOURNAL should be promptly sent to the publishers by returning the first number received after the subscription has expired. The publishers reserve to themselves the right to continue sending the JOURNAL to responsible persons until all arrears are paid.

Remittances may be made in registered letters at our risk. The receipt of the JOURNAL will be sufficient evidence to subscribers that their remittances have been received. Never send money in unregistered letters. Money so sent must be at the sender's risk.

All communications should be addressed THE J. E. BRYANT COMPANY (LIMITED), 58 Bay Street, Toronto, Canada.

TORONTO, JANUARY, 1890.

**Original Plans, Devices, and Ideas.**

Knowing that there are many original plans and devices pent up in the minds of our readers, and feeling that the publication of such would be of immense benefit to all, we have drawn up a scheme through which we hope to stimulate our friends to help us in the good work of lessening the labors and increasing the profits and pleasures of the farmer. We trust that the offers we append will show that any efforts put forth to aid us in this matter will be warmly appreciated. Not only do you who meet our request add materially to your own store of knowledge through the perusal of the books obtained, but there is the more pleasant feature attached to it of helping your brother farmers to increase the returns from their labors and better their condition. To make clear what we want, and what we will give, we have divided our scheme into three parts:

No. 1.—This division includes plans and specifications of any of the buildings numbered below:

1. Barns, suitable for general farming in any of the Provinces.
2. Barns, suitable for dairy farming in any of the Provinces.
3. Barns, suitable for the raising of breeding stock in any of the Provinces.
4. Farm houses.
5. Poultry houses.
6. Pig pens.
7. Sheep pens.
8. Ice houses and cold storage rooms.
9. Milk houses and farm dairies.

For an accepted plan of any of the above mentioned buildings we will, as soon as your contribution is published, give you your choice of any of the following books, or any of those mentioned under the second and third divisions:

Dairyman's Manual	Stewart	\$2 00
Insects Injurious to Fruit	Sawnders	2 00
How Crops Grow	Johnson	2 00
Cattle and their Diseases	Murray	2 50
American Fruit Culturist	Thomas	2 00
Practical Poultry Keeper	Wright	2 00
Horse Breeding	Sanders	2 00
Feeding Animals	Stewart	2 00

No. 2.—This division includes devices for the saving of labor in performing any work of the farm, or anything that may add to the comfort and pleasure of farming in its broadest sense. Such, for instance, as devices for saving labor in feeding or caring for any of the domesticated animals, in fencing, in any phase of orchard work, and the many other departments of work on the farm that will at once come to mind.

For any device accepted by us we will, as soon as your contribution is published, give you your choice of any of the following books, or any named in No. 3.

Swine Husbandry	Coburn	\$1 75
Shepherds' Manual	Stewart	1 50
The Standard of Perfection in Poultry		1 00
The Soil of the Farm	Scott and Morton	1 00
Farm Drainage	French	1 50
The Chemistry of the Farm	Warrington	1 00
Practical Forestry	Fuller	1 50
Fences, Gates, and Bridges		1 00
Silos, Ensilage, and Silage		50
Barn Plans and Outbuildings		1 50
One Year's Subscription to THE CANADIAN LIVE STOCK AND FARM JOURNAL		1 00
Farm Conveniences		1 50

No. 3.—This division includes articles expressing original ideas or experiences in regard to any feature of stock-raising or farming in its many departments; such as methods of growing the different crops of the farm, especially those used for soiling purposes or as grain food for stock; the breeding, feeding, and management of any of the domesticated animals; the care of the orchard—in fact, anything is a proper topic that comes under the scope of farming and stock-raising in their widest sense. The articles should be short—in fact, the shorter they are the better we shall be pleased.

For any accepted article conforming with the above we will, as soon as your contribution is published, give you your choice of a year's subscription to any of the following publications:

The Canadian Horticulturist	\$1 00
The Canadian Poultry Review	1 00
The Canadian Bee Journal	1 00
The Poultry Monthly	1 25
The Canadian Honey Producer	40
The Northwest Farmer	1 00
The Maritime Agriculturist	1 00

NOTE.—Any article, or the reading matter accompanying any plan or device, should not exceed one of our columns in length, and the shorter it is the better. A writer may adopt any *nom de plume*, if he desires that his name be not published. Remember, this is not a competitive scheme; all that is required to give you a choice of any book, as stated above, is that your contribution be published in our JOURNAL. The contributions must bear the stamp of originality. We want to bring to light these plans, devices, and ideas, and if you are fortunate enough to have all the books and papers mentioned above, by all means let us hear from you for the benefit of your fellows. Be brief and clear. We want the kernel and not the shell.

**The Past, the Present, and the Future.**

*The Past.*—THE JOURNAL was first launched on its mission of usefulness in August, 1882. The undertaking was a bold venture for individuals who had never had any previous experience in newspaper work. It is almost wonderful that under the circumstances the scheme was not followed by disaster. This result not only did not follow, but, as every one familiar with its history must know, the success of THE JOURNAL has been almost as constant and uniform as the onward flow of the waters of a river. In this we have another illustration of the truth that some men are fitted by nature, in a marked degree, for some line of work which they fail to find until somewhat late in life. There was great need for such a publication. The field of live stock literature in all Canada was quite unoccupied, and the meat that was given in the agricultural papers of that time was largely of the scrub order. The dawn of a higher education for farmers' sons was fast breaking, and the increasing intelligence that the tide of general progress bore along with it demanded more carefully prepared mental aliment than had hitherto been given to the farmers. Because THE JOURNAL supplied this want, at least in a degree far beyond anything that had previously been circulated in the country, it met with that general acceptance which we are pleased to be able to say has accompanied it to the present time, and which, judging by all indications accessible to us, was never more freely accorded to it than at the present time.

It would make a long story, indeed, to enumerate in detail the public movements in which THE JOURNAL has led. All the live stock associations in Canada, save that of the Shorthorn breeders, have been organized since the establishment of THE JOURNAL, and we feel that we are not claiming too much in saying that the existence of every one of them, and of the records which they publish, may be traced more or less directly to the influence of THE JOURNAL.

It spoke out with no uncertainty and as to the nature of the farm buildings that should be erected at the Experimental Farm, and of the kind of work that should be undertaken there, and it is now worthy of note that the suggestions in reference to both have been, and are being, very largely adopted.

THE JOURNAL advocated the establishment of the Central Farmers' Institute of Ontario, and has always lent a warm support to the educational work that is being done by the Institutes and by the Ontario Agricultural College, and it has likewise given continued countenance to the good work that is in progress in the different experimental stations established by the Dominion Government. It gave warm support to the appointment of a Minister of Agriculture amongst the farmers, and this also has been done.

THE JOURNAL has set its face a flint in its opposition to combines and every form of specious exaction of which the farmer has been the especial prey, and the words of warning it has uttered regarding swindling impostors have no doubt saved the farmers from heavy loss.

Line upon line and precept upon precept have been given in every number on the necessity of adopting better methods of farming, of improving the methods of breeding and keeping stock, of adorning and beautifying farms and farm houses, and of improving that wretchedly forlorn-looking place, the ordinary Canadian highway, which the average Canadian farmer has hitherto made the dumping-ground of all manner of unsightly rubbish.

The most substantial service, it may be, that THE JOURNAL has rendered to the farmer is the improvement it has effected in the agricultural literature of the day. It is a source of much gratification to us that the periodicals in the line of agriculture in Canada have copied our methods so faithfully, and that in this they have succeeded so well, that the result will bring much gain to the farmer.

*The Present.*—The removal of THE JOURNAL to this city has given it much increase in length of tether. When it came to this place we announced that the editorial staff all came along with it, and that the former contributors would continue their work as in the past. We are much gratified to be able to add that the sympathies of the former friends and supporters of THE JOURNAL have also followed it to Toronto, which is evidenced in the warm support that is being given to it. Never in the history of THE JOURNAL was its subscription list increasing so rapidly, and its advertising patronage better, and we cordially thank all our patrons, whether subscribers or advertisers, for the kind support which they have given us.

*The Future.*—Our line of policy in 1890 will only differ from that of all the past in the degree of its intensity. We never learned the art of trimming sails to suit the fashion. That is a shibboleth which we cannot speak. The different associations and institutions enumerated in the former portion of this paper will still receive our warmest support. With all our powers we will sustain the higher educational work of the farmers. We will lend every aid that we can to the extension of the work of the Institutes, the Fruit Growers' Association, the Dairyman's Associations, and all the live stock associations throughout the length and breadth of the land.

We will strongly advocate the enactment of a universal herd law for the older settled portions of Ontario, and the introduction of a text book into our country schools, the teaching of which will be compulsory.

The acumen of the contributors to THE JOURNAL, and also their mental calibre can be judged of by our readers in every issue. We need only add here that every addition made to our staff will prove a source of great strength in the proper sense of that term.

Our readers will be pleased to know that Professor Shaw, the former editor of THE JOURNAL, has consented to write for us a series of articles, which will be copyrighted, on "The Pedigreed Breeds of Live Stock."

and which will probably extend over several years. The first of the series will appear in the February issue.

With an ever-widening field of usefulness we shall redouble our energies to fill it, and we earnestly ask of every reader of THE JOURNAL to assist us in the work of scattering the seeds of useful knowledge in reference to agriculture over an ever-widening area.

It may be that our readers will have eaten their Christmas dinner before this number reaches them. This will not prevent our wishing them the most hearty enjoyment of that happy meal, and of all the festivities and reunions which the holiday season brings along with it. Our heartfelt desire for every patron is that the old year may close happily over them, and that the new one may dawn upon them rosy with auspicious promise.

### Save Only the Best Males to Breed From.

Again and again and again our breeders of pure-bred stock require to be reminded that they should not allow inferior males to leave their herd at any price. The practice of selling all and sundry males that may come to hand, so universal in the past, has done an amount of harm to the live stock interest that it is not easy to estimate. This more than anything else perhaps has hindered the progress of stock improvement. It has hindered it in various ways. It has scattered broadcast over the land a lot of male weeds, which have filled the country with animals no better than themselves and not infrequently a good deal worse, and from these results a very large number have formed their estimate of the value of pure-bred stock. To castrate all that are beneath a good fair standard may require no little courage when one thinks of the prices they may possibly bring if sold to breed from, but it should not be forgotten that the increased prices thus obtained may only prove present gains, more than counterbalanced ultimately by loss, consequent upon the loss of prestige as a breeder which these animals are sure to bring to him who sells them. The remedy is simply to courageously use the knife so soon as it is apparent that the young creature is not going to prove really good individually. If a breeder only sells males that are of a high order, he soon secures a reputation as a breeder which will secure him prices that will more than counterbalance the apparent loss from castrating the weeds.

### More Sheep Needed on our Farms.

The value of sheep as scavengers of weed life should never be forgotten, and this quality of theirs alone, not to mention their many others, should give them a place on many Canadian farms now without them. Not only are they so easily satisfied in their tastes as to browse on weeds of all kinds, but their powers of mastication and digestion are so much more perfect than those of cattle and horses, that the vitality of the seeds is destroyed in passing through them. It is an observable feature of pastures on which horses or cattle have been grazed that weeds may be seen springing up from their droppings, while in the case of that upon which sheep have been allowed to eat down well, they effectually kill most weed life by close nipping and weed seeds by thorough mastication. Mr. Galen Wilson, in the *N. Y. Tribune*, writing of this asks the question if this complete mastication that sheep give their food may not be the reason why their manure is so valuable and so much

richer than that of most of the other animals of the farm. It certainly would appear that owing to this the droppings from sheep would be more easily assimilated by plants. However this may be, the fact is that sheep are valuable fighters of weed life in all forms, and that they yield a fertilizer of high manurial value. There are few farms that cannot keep a small flock with profit if only for keeping weeds down as well as for utilizing pasture fields inaccessible to horses or cattle for sheep ranges. Many rough spots could be made to yield profitable returns in this way, for on just such hilly and unpromising tracts for other stock the Downs, Highlands, Cheviots, Cotswolds, and others would be under their best conditions. Sheep have not yet by a long way reached their proper position in our agriculture, but as the popular sentiment must grow in favor of stock-raising with the processes of the suns, so must sheep husbandry become a larger and more fixed factor in our farming.

### Swine Industry.

In our estimation, the most practical, clear, and concise bulletin of the many such that have been sent out by the Bureau of Industries has just been issued. Possessing these features, as well as treating of a subject uppermost in the minds of our farmers at the present time, it will prove an unlimited source of information to all those seeking light on this important part of our live stock interest. From not only the many breeders of our own Province has information been obtained, but from those prominent as such in England and all America, and from this fund careful and sound conclusions have been drawn, each collection of testimony being prefaced by Mr. A. Blue, the compiler, under the direction of the Hon. Chas. Drury.

The universal trend of opinion is that better management of the pigs on our farms is required if we are to sustain and advance our present market. Pork of the best quality, nicely intermixed in respect to fat and lean, is finding an enlarged market, and to produce this more healthier systems of management and better methods of feeding are urgently called for. Comfortable conditions in the pens, and nourishing grain food during the winter and plenty of clover pasturage during the summer, are lines of improvement to be more followed. Our friends to the south may, with their abundant yield of corn, grow a cheaper pork than we, but in this case, as in all other products of the farm, quality must be our sheet anchor, and quality of product pays well in such a case as this, when there exists an unsatisfied demand for it.

Another feature deserving all the emphasis that frequent repetition can give it is the question of early maturity. As it is plainly discernible that the market calls for a porker of 100 to 200 pounds weight, it is clearly to the interest of the farmer to meet that demand, as it implies cheaper productions, and hence larger profits and also quicker returns. It does not necessarily imply rapid forcing, which must certainly result in an inferior quality of product, but it does imply that the young pigs be kept moving along in growth, which cannot be done by feeding them sour swill and other refuse alone, but only best done by liberal, though not lavish, feeding of grain food, with pasture.

This bulletin it would be impossible for us to review in the space at our command, but we, with confidence, commend it to all farmers and stock-breeders. Send a postal card to Mr. A. Blue, secretary of the Bureau of Industries, Toronto, requesting a copy, and we feel we may bespeak a favorable reply.

### The Cattle Trade.

Our export trade in cattle over the St. Lawrence route to Britain is yearly increasing. We have an advantage in this route; it is shorter from shore to shore than from the United States ports, and the smooth water at the beginning of the voyage allows the cattle time to become accustomed to the motion of the vessel before they reach the rough Atlantic. There have been few accidents this year in the trade, and generally the stock have landed in fair order. Our freedom from disease allows Canadian cattle to be landed and, after inspection, forwarded inland to any part of the United Kingdom. Cattle from the United States have all to be slaughtered when landed. This is a great advantage, and one that must be carefully guarded by keeping our stock in the future as clear of disease as they have been in the past. One result of this permission has been to develop a trade in feeders, and several boat loads have been sent to Aberdeen and found a good market there. The question suggests itself, are we making the most of this export trade? It is increasing largely in the numbers sent; last season it went up from 61,000 head in 1888 to over 85,000 head, an increase of 24,000—about 40 per cent. The export of store cattle would help to swell the numbers. Are the animals being sent an improvement on those sent four or five years ago? We fear they are not. That in quality we are standing still, if not indeed going back. This is not as it should be. We must go on and have a better class of export stock year after year. It may be said that the price has been steadily declining, and that there is no great inducement to feed and forward a better class of stock. There is great inducement. If the better class will not pay then it is quite certain that inferior animals will only make a loss. If good animals do not make a good profit for food consumed there must be a big loss in feeding scrubs. Good animals will always bring a good price, while inferior ones will often be a drug and have to be sold at a loss. Last season in Chicago farm-fed animals averaged more than twice the price obtained for ranch stock. Western farmers have been paying attention to the quality of the sires used. There is a marked improvement in the cattle forwarded at the Chicago Fat Stock Show to those seen a few years ago; and as to price the quotations on the Chicago market 4th December were, for first quality, \$5.25 to \$5.35, and one lot brought \$5.50; a lot of 95 head sent in by one feeder brought \$5.20, and averaged 1,686 lbs. They were bought for export to London, Eng. Those animals have a longer rail journey, a longer sea journey, and have to be slaughtered when they reach London—yet for all that they bring a price rarely touched by Ontario feeders the past year. Why is this?

### The Value of Impressive Sires.

The art of breeding is well understood by but few. This is owing in part to the little attention which it receives from the many, in part to the comparative intricacy of the subject, and in part to the elements of uncertainty involved in it. That the majority give the matter but little careful thought is sadly true. Convenience rather than knowledge often governs them in their selections. It is equally true that the intricacies of the subject keep some from approaching it by way of careful study, but to the thoughtful painstaking breeder the most perplexing feature is the variations that arise sometimes, which are not in consonance apparently with the general law of uniformity.

There are some rules, however, so simple, and usually so uniform in their action, that it is simply unaccountable that they are not more universally observed. One of these is that generally "Like produces like." From this it follows that where breeding is done in an aimless hap-hazard way it is quite impossible to attain to any standard of excellence. The character of the type will be continually shifting, and unless there is constant improvement in the selection of both sires and dams it is likely to set in a downward direction.

To those who are improving their herds and flocks the elements of variation form one of the most perplexing problems. By the elements of variation we mean atavistic tendencies, and the differences in the degree of these in breeding from the same animals; the differences in the prepotency of males of the same tribe and of different tribes, and the different results that are sometimes obtained in breeding from the same pair of animals.

Perhaps it is well that along with a general law governing breeding which makes improvement possible, it is better that we find those deviations, for otherwise variations in type would be less easily obtained. It would not be a desirable thing to have all the members of our family resemble each other so completely that, like the paintings of the artist taken from the same model, they could not be told apart, while it is simply delightful to find resemblances which make it very clear that all belong to the same household.

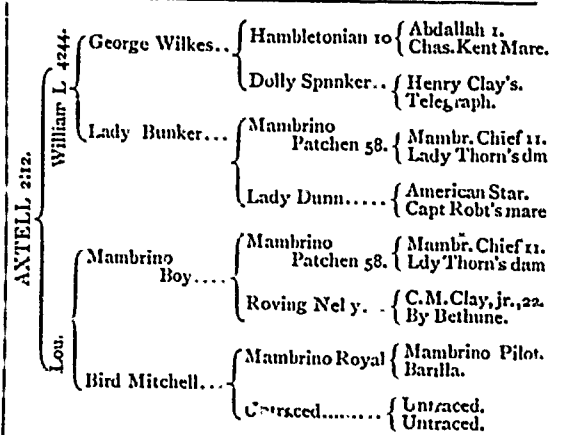
To obtain continued improvement the utmost care must be exercised in the choice of males. In a herd that is uniformly good a mistake in the choice of a male is little short of a calamity if he has been used to any extent in the herd. A mistake in the selection of a female is of but slight importance in comparison with the former, for it can be detected with the first or second individual of her progeny, and these may be disposed of along with the dam, but to remedy a mistake in the choice of a male might involve the disposal of all the young animals of the herd of one or two generations. It is safer either to buy a male who has proved his merit as a stock-getter, or to use him on but few animals of the herd at first, proof being thus afforded of his value before he is extensively used. This points to the wisdom of seeking a successor to the stock bull in use, where but one is used, some time before the old sire is to be set aside or disposed of. By following up a plan somewhat similar to what has been indicated, the famous breeder of Sittyton, Mr. A. Cruikshank, was enabled to use from time to time a succession of bulls remarkable for their prepotency.

The superior prepotency of some tribes of animals is very remarkable. Although there were many families in the Sittyton herd, but few of these produced bulls considered good enough for using in the herd. Some of these tribes produced excellent females and bulls, the individuality of which is of the very first order, and yet the bulls proved less prepotent than those of other tribes in the herd, which led the sage

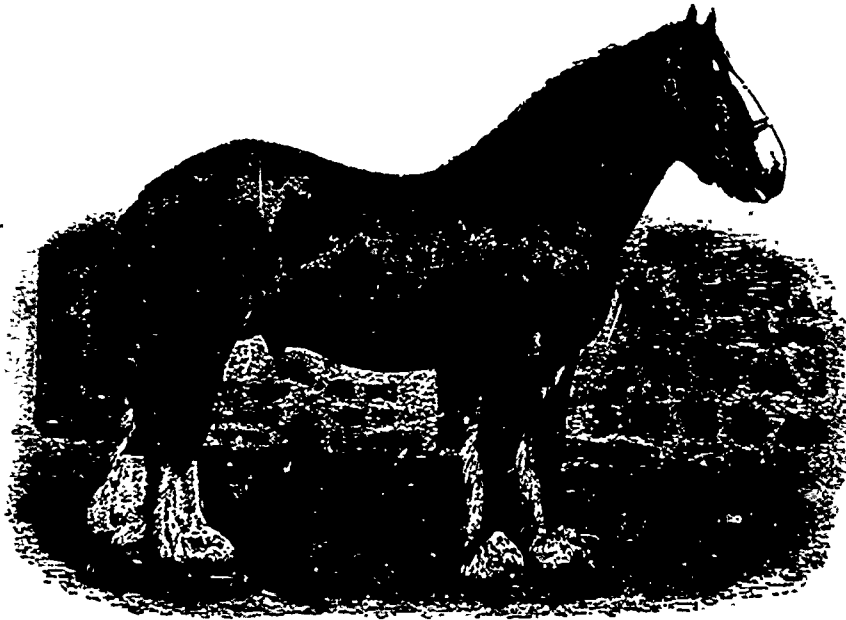
of Sittyton to select his stock bulls from those tribes which had proved their excellence as stock producers.

The time was, doubtless, in the history of this country, when good sires could not be easily obtained except at the payment of a long price, but it is not so now. Those, then, who are breeding pedigreed stock and fail to get good sires are certainly making a great mistake. The very best class of sires may cost a high price to get them, and so it will be always, but good ones may be got at figures which are not dear.

The storm rolling down the mountain side goes the faster the further it goes; likewise, the breeder of good stock should outdo his former self as time goes on. The produce of this year should exceed in quality that of last year, and the produce of next year should be still better than that of this year, and so it will be always where stock breeders are alive to their own best interests. The breeders of some breeds are doing this, yet it is not so with all of them. It requires of the breeder, if he is to keep his herd ever progressing, not only a full knowledge of the important qualities of his care, with keenness of perception to single them out, but it also demands the courage to weed out those that do not come up to the fixed standard.



It only requires a glance at this pedigree and the engraving of Axtell to understand the reason of the high price he brought, and the same may be said of Prince of Albion. They are both of the highest breeding of their different directions, as will be readily granted by those well acquainted with Clydesdale and Standard bred blood lines.



PRINCE OF ALBION.

Two Famous Colts.

We present two illustrations in this number of a pair of renowned colts that are both famous especially for the enormous sums that were paid for them by their present owners. The Clydesdale stallion, Prince of Albion 6178 (shown in an engraving specially prepared for this issue, from an engraving that appeared in our London, Eng., namesake), besides being the winner of many minor prizes, succeeded this year in carrying off one of the gold medals at the late Windsor show. He is described as a bay, foaled in 1886, bred by the late R. F. F. Campbell, of Craigie, Scotland. He was sired by the great Prince of Wales 673, and his dam was Mysie 6073, by the well-known prize-winner and getter of prize-winners, Darnley 222. The Prince of Albion sold for the highest sum a draught colt has ever been known to bring, £3000, when only 2 years old.

Axtell, the present king of the turf, with his record of 2:12 (appearing in an engraving specially prepared for us from one that appeared in the *American Agriculturist*), was sold for the handsome sum of \$105,000 by Mr. C. W. Williams to Mr. Bonner. The following schedule shows his breeding:

The head functionary of the Royal Mews is the Master of the Horse, at present the Duke of Portland. The salary attached to the office is two thousand pounds per annum, and the right to stable a certain number of horses in the Royal Mews. The office goes with the government, and is always given to a man of rank and wealth as well as great political influence.

The main entrance to the stable is through the handsome gateway that opens on Buckingham Palace Road. I suppose in no stable in the world can such a collection of horses be seen. All are over sixteen hands high, and most over sixteen and a half. The general color is bay or brown, and white legs or feet are conspicuously absent. The animals are all given names that commence with as many letters of the dealer's name as practicable, as a record of their purchase. Thus "Blackbird" and "Blackcap" were both purchased from a dealer Blackman, and "Jonquil" came from Jones. All the names are placed on iron plates above the racks. The floors of the stables are all sanded in patterns, and the straw litter is finished off with a neat straw plait. Against the posts—as can be seen in the picture of the "creams" stable—are

From the *Cosmopolitan*.  
The Queen's Stables.

By CHAS. S. PELHAM-CLINTON.

No one walking in the garden of Buckingham Palace would believe that one of the largest stables in England lies behind the high mound of earth excavated from the ponds that look so charming to the eye. The rampart is covered with trees, which help to hide the buildings. The Queen hardly ever uses Buckingham Palace nowadays except on state occasions, and the palace and grounds have rather a deserted appearance. Such is not the case, however, with the Queen's stables, known as "The Royal Mews," which adjoin the palace, though apart from it in management.

neatly arranged sheafs of straw. There is a foreman in charge of each stable, and to every eight horses a coachman, who has under him a competent number of men and an assistant coachman.

The horses are all clothed alike in neat red, white, and blue rugs of a small check pattern, bound with red. The initials V. R. are on the quarters, and the quarter-cloths have the same initials, with no display. The price of the horses varies from one hundred and fifty pounds to two hundred and fifty pounds apiece. They must be young, and pass a vigorous veterinary examination. After being purchased they are thoroughly trained. The chargers have a special drill in the riding-school, over timber, walls, and hurdles, and are also taught to "stand fire."

The first stable on the left contains eight good-looking bays and browns, that are used in the smaller carriages. Other small stables are passed, all in perfect neatness, and then comes the chargers' stable. In it are many grand horses, particularly the big sixteen and a half hands bay horse "Sunrise," that the late Emperor of Germany rode in the Jubilee time. All are perfect chargers, and will stand with their noses close to the largest guns when they are fired, and not twitch an ear. The next stable contains the small chargers, all about fifteen and three-quarters to sixteen hands, and equally well broken. Among them is the charger that the ill-fated Prince Rudolph rode in the Jubilee time. Indeed, all of the horses in these stables have some special association connected with the Royalties who have been on their backs.

In the equerries' stable the horses are a trifle smaller than most of the others. On this side of the square also is the state harness room—a very interesting apartment. On the left hand is the "creams" state harness. The leather is red morocco, and the heavy plating is gilt on a brass foundation. The weight is no less than one hundred and twelve pounds. This harness never leaves Buckingham Palace, and is used only on state occasions. The gilt crests and arms are of beautiful design and work, and the whole effect is superb. Hardly less handsome is what is known as the "black horse state harness." This is made of black leather, and the crest and royal arms are of brass; the trappings of this are covered with crests, and the effect is very beautiful. The weight of a single set is eighty pounds.

In the same room is kept the state harness made for George IV. in 1812, when he was Regent, which has never been re-leathered since it was made. It is extraordinarily massive and handsome, the royal arms are very beautifully cut, and the leather is as good now as it was three-quarters of a century ago. It weighs one hundred and twelve pounds a single set.

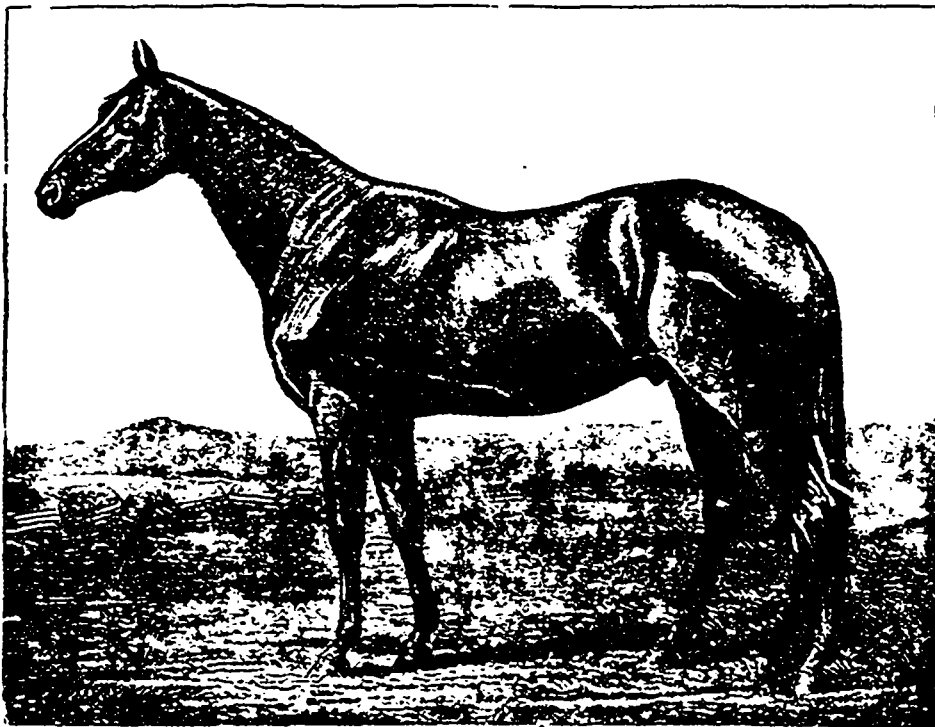
In the thirty-two stalled stable are thirty-two fine-bred horses from sixteen and a half to seventeen and a quarter hands, all glistening bays, so perfectly matched that almost any four could be placed in front

of a carriage. The perfect ventilation disposes almost entirely of any stable odor.

The other half of this wing is occupied by the "creams" and "blacks," all stallions, over sixteen hands, and the wheelers sixteen and a half. The heavy, massive harness, and the peculiar coloring of these horses make them look much smaller than they are.

The breed originally came from Hanover in 1820; and the stud at Hampton Court, where they are bred is the only pure specimen of the breed. Since their sojourn in this country not a mixed-colored animal has been born, which augurs well for the purity of the breed.

They are of a curious cream color, with very silky manes, and tails almost touching the ground. Their eyes are white, with pink centers, and their noses are pink, almost like human flesh. They are very tractable and sagacious, and I was told by Mr. Norton that they have wonderful memories. Of course they are used only on great state occasions, and the effect of



THE CHAMPION COLT, ANTEL.

the eight horses, with their massive, handsome harness, attached to the gilded coach, is very fine. "Occo" is the handsomest of the "creams," and is a very intelligent animal.

Opposite the "creams" are the eight "blacks." The wheelers are no less than seventeen and a half hands in height. They also came from Hanover in the year 1820, and a special breed is maintained at Hampton Court.

Their coats have a marvellous gloss, and their jet-black tails touch the ground. The effect would be a good deal heightened if the red harness was used with the black horses, and the black harness with the "creams," but the opposite is the rule.

The "blacks" are used on minor state occasions, and by the Prince of Wales when he holds a levee or appears at any state affair for the Queen. "Zulu," the wheeler whose picture is given, is one of the handsomest of these, and is seventeen and a half hands in height.

## The Jersey.

While a live stock lover will readily concede that the Jersey is of the gentlest disposition, and possesses beauty to an extreme degree, there are some very pronounced in the opinion that these are their major qualities, and that utility is one of their minor features; but in the light of present progress and true knowledge of their valuable characteristics, this opinion must suffer a reversal. That the Jersey has been used as a thing of beauty, yes, and a joy forever, on some of the green-swards of English manors is not a matter for dispute, but to say that the thoroughly practical American would brook such an animal upon his farm for purpose of ornament alone, is robbing us of one of the strongest and truest arguments in favor of the Jersey: for how can we better judge of their value than by the reception that was given them and the increasing favor shown them by the money-making American farmer. It is to be remembered that our climate, soil, and management has even made the American-bred Jersey better than her native ancestors.

Let us look at her in her native home. The Island of Jersey is only about twelve miles long by five broad, and there are about 12,000 head of cattle upon it, and perhaps the most remarkable feature is that they annually export about 2,000 head of pure-bred animals. The surface of the island is undulating with a southern exposure. The climate is temperate, being milder than that of a like latitude in England. The mean temperature is 53°, and in summer it rises to 61° and in winter falls, as it a rule, to 42°. As to the origin of this herd of cattle speculation is rife, suppose it to say in this respect that they have been bred in purity on the island for over a century and a half, and that for nearly that length of time strict laws have been in force preventing the importation of any

foreign stock whatever. There are a few items in the management of them in their native home that calls for notice. Mr. Jonathan Smith, of Jersey, says: "The single aim and end of our efforts has hitherto been butter, and it is this concentration of the energies of all breeders in one direction for so long a period which has doubtless been the chief agent in improving the breed and making it, as it is now, the best of butter cows. Beside the steady pursuit of one object for so many generations, and the careful selection of sires to that end, there are two other peculiarities of management in Jersey—tethering of the cows and feeding the calves by hand." In respect to the selection of the bulls the scheme was adopted by the Jersey Society of obliging the owners of prize-winning bulls to place their animals at the public service, and no bull that wins a prize is allowed to leave the island for a whole season or if he does the prize is forfeited. The tethering of the cows is necessitated by conditions, and this, no doubt, has been largely the cause of the lamb-like docility of the Jersey.



Taking the calves away from their dams has made the calves more accustomed to human companionship, and in this way made them more gentle than they otherwise would be, while the practice at the same time would in many ways be exceedingly beneficial to the cows. The style of farming is concentrated, as attested to by the fact that only 1 1/4 acres of pasture is allowed each cow and this in turn has reacted on the Jersey and has made her an animal of the highest culture, to be at her best where farm culture is the most thorough and concentrated. The Jersey breeders have recognized the importance of singleness of aim, and this has, no doubt, acted as one of the great factors in their progress, for it is a hard matter to increase the butter-yielding qualities of a cow, and to do it requires the enlistment of all possible elements. As a breeder says: "It would take a less number of generations from the cow with which a breeder started to double the flow of milk of a family than to increase the butter yield one-half." It is a problem of far more difficulty to increase the butter yield of cows than their milk yield. This they have recognized, and putting forth all their energies and calling into play all available means they have made the Jersey a special butter cow. In their native home Quayle says that there are instances of the cows giving 14 lbs. of butter per week, and Gerard says that in one year the average butter production is from 236 to 322 lbs. per year. In England, perhaps the most famous herd is that of Mr. Phillip Dauncey, whose herd, including dry and milking cows, have averaged seven lbs. of butter per head per week during the entire year.

Ever since their introduction into America in 1815, they have made rapid progress, until now the American-bred cows may fairly be said to surpass the parent stock, as attested to by the great number that have records of 14 lbs. of butter per week. It is not necessary to quote the doings of such cows as Princess Mary Anne of St Lambert, or Toltec's Fancy, to make apparent the butter-giving qualities of the Jersey for this feature is too well known to need the citing of special cases to substantiate it. The scale of points adopted by the American Jersey Cattle Club will show the type of animal they are endeavoring to establish on this side of the water. The extreme practicability of the American objected to the poorly regulated scale of the Jersey Agricultural Society, as the latter placed too much value upon fancy points, so this was remodelled in 1885 by the American breeders to read as follows:

FOR COWS.

- 1 Head small and lean, face dished, broad between the eyes and narrow between the horns. . . . . 2
- 2 Eyes full and placid; horns small, crumpled and amber colored. . . . . 1
- 3 Neck thin, rather long, with clean throat and not heavy at the shoulders. . . . . 8
- 4 Back level to setting on of tail. . . . . 1
- 5 Broad across the loin. . . . . 6
- 6 Barrel long, hooped, broad, and deep at the flank. . . . . 10
- 7 Hips wide apart; rump long. . . . . 10
- 8 Legs short. . . . . 2
- 9 Tail fine, reaching to the hocks with good switch. . . . . 1
- 10 Color and mellowness; inside of ears yellow. . . . . 5
- 11 Fore udder full in form and not fleshy. . . . . 13
- 12 Hind udder full in form and well up behind. . . . . 12
- 13 Teats rather large, wide apart, and equally placed. . . . . 10
- 14 Milk veins prominent. . . . . 5
- 15 Disposition quiet. . . . . 5
- 16 General appearance. . . . . 10

Perfection. . . . . 100

In judging heifers omit Nos. 11, 12, and 14. For bulls the same scale of points shall be used in judging bulls omitting 11, 12, and 14, and making due allowance for masculinity; but when bulls are exhibited with their progeny, in a separate class add 30 counts for progeny.

is not necessary for us to take up the story of the several families such as the St. Lamberts, the shining light of which is Mary Anne, with a week's record of 36 lbs. 12 1/4 ozs. of butter, the Coomassies, with Princess 2nd as their best with 46 lbs. 12 1/2 ozs. of butter to her credit for a week's work, and the Signals, Gilderoy's, St. Heliers, etc., etc., for there is a great number and all are possessed in a more or less marvellous degree of that prime feature of the Jersey—butter-giving qualities. To mention all the Jersey cows with records over 14 lbs. per week would fill columns of our JOURNAL, so we must ask our readers to take our word for it that such yields are common, and the great number of them clearly illustrate that the Jersey is not merely a beautiful structure from the standpoint of bovine beauty, but she is a piece of mechanism intelligently constructed on the best principles for transforming raw vegetable material into luscious palate-pleasing and eye-entrancing butter.

Canadian Jersey breeders will long remember the valuable work done for this breed by Mr. Valancy E. Fuller, and it is certainly a pleasure to know that the future success of the breed, so far as Canada is concerned, rests in the able hands of such breeders as Mr. A. Reburn, of St. Anne de Bellevue, Que.; Mrs. E. M. Jones, of Brockville, Ont.; Messrs. Smith & Son, of Grimsby, Ont.; ably supported by T. E. Brameld, of Oakville, Ont.; A. P. Ball, of Stanstead, Que.; R. Reesor, Markham, Ont., and R. Bailey, of Union, Ont., not to mention many others who have at the head of their herds bulls of this breed.

Guelph Fat Stock Show.

(By our own Correspondent.)

The annual show and fair held under the auspices of the Guelph Fat Stock Club was this year located in the new Western Hotel stables, which had been specially arranged for the purpose and fitted up with electric lights. The show opened on Wednesday, 11th December. The judging took place in the evening, before a large attendance of visitors, who crowded every available space and evinced great interest in the proceedings and decisions. The fair was continued the following day, Thursday. There would be on the grounds some 600 head at one time. The prices ranged from 4 to 5 cents per pound, live weight. Most of the ordinary butcher's stock went 4 1/4 cents or over, and a few extra animals went slightly over 5 cents. Prize animals were low in price, compared with the 12 1/2 cents that was years ago thought to be the lowest price for a prize winner. The highest noted this year was 7 cents. The best animals ranged from 6 to 7 cents. Many farmers had sold before, and their cattle went direct to the shipping-yard. Some few were unsold and were taken home by their owners, who thought that with the low price of grain they would risk feeding them till spring. There was a good turn out of cattle as compared with the last few years, but not as large as has been at a Christmas show of ten or twelve years ago in Guelph. The judges were John Hope, Bow Park; George Moore, Waterloo; and William Crealock, Toronto, and they gave good satisfaction in their decisions. For ox or steer, 3 years and over, there were four animals brought out. First and second were awarded to Messrs. Weir & Weir, of St. Marys, with a good pair, a red and a roan, weighing about 2450 pounds each; third prize fell to Mr. Jas. Ross, Pilkington, for a red and white, a good one, but scarcely as heavy or as ripe as the former. For steer, 2 years old and under 3, Messrs. Thomas Ballantyne & Sons, Stratford, were first with a very good

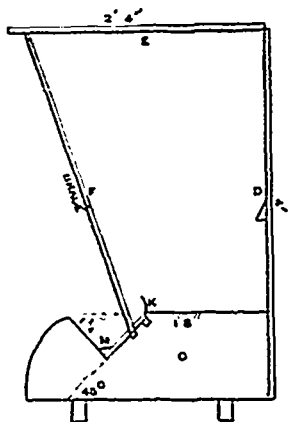
Shorthorn grade, 2 years and 6 months old, a first cross after a Cruikshanks bull, bred by W. Duthie, Aberdeen, Scotland. He is a roan, level top, good deep rib, good brisket, a little narrow behind, and weighs 1790 pounds. He was much admired. In steers under 2 years, William Sharp & Sons, Everton, were first with a nice red steer, 19 months old, good top and front, fair behind, but deficient a little in the set of his ribs. He was got by an Aberdeen bull, Baron, bred by Campbell, Kinellar, and imported by Arthur Johnston, Greenwood P.O. Second prize fell to Duncan Stewart, Eramosa, for a square, chunky animal of similar breeding, 23 months old; and third prize went to E. Searles, Rockwood, for a roan steer 20 months old, good front and ribs, but rather deficient behind. The next class called was for best cow, 3 years and over. Some ten animals, making a very strong class, faced the judges. Mr. James McQueen, Salem, had three very fine roans, two 3-year olds and one 4 years. The winner would probably have been found amongst them. They were well fed and of good quality. Mr. Walter Shillingan had a fine red cow, 4 years old, showing good blood and fair feeding, a trifle patchy, and bred from a bull rich in Bates blood. Before the judges were allowed to examine the animals, the president came forward and stated that he had been informed that some exhibitors were showing animals in this class that had never had a calf, and that all such must be removed, as an animal could not be a cow till she had had a calf, and the prize list clearly said "cow." There was a good deal of vigorous "kicking" at this order. One exhibitor asked what he would call an animal that had milked for two years and never had a calf. The president stuck to his decision that it could not be a cow. It was rather amusing to see a large audience of farmers wrestling with the question, What is a cow? Some of those present offered to subscribe on the spot for a prize for the ejected females, and this was backed up by some of the judges, but the president supposed he was right and would not endorse the proposal. It is but fair to the directors to say that no meeting had been called to consider the question, and the executive alone took upon themselves to decide the point. What made the matter worse was the fact that in former years all such animals were allowed to compete. The aggrieved exhibitors removed their animals, and the judges proceeded with what was left. Both Webster and Worcester define cow as "The female of the bovine genus of animals," and heifer as "A young cow." The expression frequently used by breeders, "a cow-calf," is therefore strictly correct, and the distinction between heifer and cow seems to be one of age only. First prize was secured by John Atkinson, Guelph, for a 4-year-old "Roger" cow; second to Nisbet Potter, Mono Mills, for a 5-year-old red cow: she was a good cow and fat, but shown in the rough, not having been stabled or curried, and weighed 1700 pounds. John Phin, Hespeler, was third with a 3-year-old red cow. For heifer under 3 years, Robert Irvine, Nassagaweya, had a nice heifer, 34 months old; George Wakefield, Guelph, was second and third with rather an inferior pair. Under 2 years, Mr. Atkinson was first with a nice, level red heifer, and Walter West, of Guelph, second with a younger animal. The next series of prizes were given for animals of any age or sex, shown by feeders who had never exhibited before at this show. There was a good turn out for these prizes. The 2-year-old steer exhibited by Mr. Ballantyne was first; James Ross, Pilkington, was second; and Mr. Atkinson, Guelph, was third. For herd of three fat cattle, any age or sex, James McQueen, Salem, was first with his three roans. He also won the sweepstakes for best animal in the show, any age or sex. The next

was "The McAtteer Cup," value \$60, to be won twice by one man and by a different animal, must be bred and fed by exhibitor, previous winners barred. There was quite an exciting contest for this prize, and when Mr. Ballantyne, of Stratford, won it with his 2-year-old steer, he was well cheered. Mr. Ballantyne is an ex-student of the Agricultural College, having spent two years there, and he was heartily congratulated by his many friends, students, and others who were present.

There was a good display of sheep. Mr. John Rutherford, of Roseville, was the chief exhibitor, and secured all the prizes in the aged wether classes, as well as that for the pen of six sheep. His two-shear pure Leicester is a beautiful animal of fine symmetry, weighing 402 pounds. He has also some very fine Downs. In lambs he got third, and in ewe lambs second. E. Parkinson, of Eramosa, got first and third for fat ewes, and Thomas Waters first and third for ewe lambs, and second for wether lambs. Robert Irving, Nassagaweya, got first for wether lambs, and William Rae, Arkell, second for ewes. The sheep were an extra good lot. The pigs were few. George Fyfe and Walter West, both of Guelph, got most of the prizes. The judges for sheep and pigs were E. Snell, Galt; J. McHardy, Guelph; and Thomas Small, Hamilton. There was a large and fine display of dressed poultry. Mrs. George Fyfe, Robert Buchanan, James Anderson, and James Taylor being the principal prize winners.

### Stationary Sheep Rack and Feeding Trough.

We have had several inquiries in respect to sheep racks, and in answer thereto we are enabled, through kindness of two of our friends, to favor our querists with two plans. In another column will be seen a plan that has been kindly sent us by Mr. Walton. While at the Ontario Agricultural College, we there saw the best plan that has yet come under our observation. To our friend, Mr. J. McIntosh, head of the Mechanical Department at the College, we are indebted for the excellent sketch given below, and also for the clear description appended. Many of the ideas shown in this sketch are original with Mr. McIntosh. The racks constructed by Mr. McIntosh on this plan for the sheep pens at the College have given every satisfaction. The main features about the



rack are that it keeps the dust and chaff out of the wool, the sheep cannot waste the hay, the wool is not rubbed off in feeding, and it is very handy. Mr. McIntosh describes it as follows: The frame is shown in Fig. A. These frames are set every six feet in length of rack. The base, "C," is made of 3x12 inch material. It is raised on peg strips or morticed pieces 4 inches in height. Cut a right angle notch 1 ft. 6 in. from the back, the cut being made at an angle of 45°

with the base. The notch is 9 1/4 inches in length, and therefore about 13 1/2 inches across the top. Cut a second notch, "K," 3 inches long and 1 1/2 inches deep. Place your base pieces 6 inches apart along a wall; if you have no wall, put uprights and board them 4 feet high. Nail a strip 3x12 1/2 inches in notches "K," then nail an angle strip (made by cutting 2x4 inch scantling across corners) against the wall

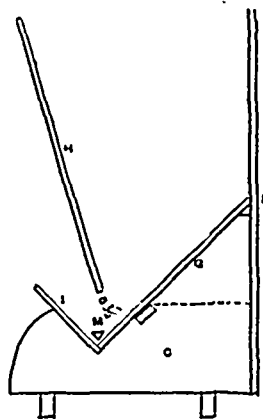


FIG. B.

or boarded uprights, 2 inches from the top, as shown at "D." Nail on the boards "G" and "I" at the base. The board "I" is 1x10 inches. Nail on the boards "H." If a triangular strip at an angle of 45 degrees be cut from an inch board and nailed in groove of trough, it makes a tight joint (see "M" in sketch). By having the base, "C," made as described above, there is room for quite an accumulation on the floor of the sheep house.

### Annual Meeting of the Dominion Draught Horses Breeders' Society.

The third annual meeting of this organization was held in the Town Hall, Clinton, on Wednesday last, with a large attendance of members. President John McMillan, M.P., occupied the chair.

The financial statement showed the balance on hand at last audit, \$1,491.42; received during the year, \$825.50; disbursements for salaries, printing, postage, and other expenses, \$428.47; balance on hand \$1,888.45.

The Secretary's report showed 604 entries received for the second volume—359 stallions and 245 mares.

The report of the Council was read, containing an account of their doings for the year and submitting several important recommendations. The report stated that the Council had ordered the prosecution of two parties for false entries, under sec. 85, chap. 11, 49 Vic., A. and A. Act of Ontario, and these would be decided shortly. They had also decided to close the second volume of the stud book on March 1st.

On the subject of registering animals bred in the United States, from Dominion Draught stock, several letters had been received, but the Council, entertaining doubts on the advisability of such registration, or the power of the Society therein under its letters of incorporation, had consulted Mr. J. T. Garrow, Q.C., and his opinion was submitted to the meeting. It was to the effect that the Society being incorporated under the laws of Ontario, for the declared purpose of "promoting the interest of breeders of draught horses in Canada," it had no authority to extend its business outside of its country, and necessarily would have no control or authority over applicants from the United States where false representations were made in an entry for registry. This opinion was on motion endorsed by the meeting, and the secretary instructed to

give all assistance or information which might be desired by parties in the United States, who might organize a stud book there.

The Council recommended (1), the passage of a resolution declaring the progeny of Dominion Draught stock eligible for any volume of the stud book; (2), that the standard of registration for the third volume should be three crosses of accepted sires; (3), that only one-half the Council retire each year hereafter; (4), that the Secretary be empowered to charge 25 cents for each letter necessary after the first one to complete or perfect an entry presented for registration; (5), that where animals are purchased by shippers or jobbers the entry for registration be required to be made by the breeder or owner of the animal; (6), that where the breeder is dead or his signature not obtainable, an application for registration must be attested to by the statement or affirmation of a responsible party before a notary public. All these recommendations were adopted by the meeting.

The election of officers resulted as follows:

President, John McMillan, M.P., Constance P.O., (re-elected).

Vice-President, D. McIntosh, V.S., Brucefield, (re-elected).

Treasurer, John Aikenhead, V.S., Goderich.

Secretary, James Mitchell, Goderich, (re-elected).

Council—P. Curtin, Adare; Alex. Innes, Clinton; McGregor, Brucefield; J. E. Blackall, V.S., Clinton; D. Fisher, Goderich; John McDiarmid, Lucknow; John Busch, Sebringville; James Henderson, Belton; J. J. Fisher, Benmiller; Wm. Sinclair, Cnisehurst; Thomas Green, Dublin; C. E. Mason, Brucefield; J. H. McRoberts, Lucan.

It was decided that the Council should meet at least once every three months, and the first meeting for 1890 will be held about the time of closing the second volume.

S. Smillie, of Hensall, and Thomas McMillan, Constance, were appointed auditors for the current year.

It was decided that a dam with two crosses must be registered in order to admit her progeny to registration, but that mares not entered as dams must have three crosses to register.

After votes of thanks to the officers of the past year the annual meeting was closed.

A meeting of the new council was then held. Messrs. Innes, McIntosh, and D. Fisher were appointed a committee to receive the bonds of the new treasurer and the secretary, and transfer the bank accounts. The following were appointed as the Executive Committee for the revision of entries: Alex. Innes, P. Curtin, D. McIntosh, James Henderson, and J. E. Blackall.

After transacting other routine business, the Council adjourned.

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL.

### Pigs for Profit.

It has always been a source of surprise to me when travelling through the best farming districts of Ontario to notice how very few pigs are to be seen on the generality of Canadian homesteads; but perhaps one reason for this may be found when the reader is told that before I became a "loyal son of the Dominion" my home and birth-place was in the "Land of the Sod," where, instead of being looked upon as a scavenger only fit to consume what the other stock rejects, the pig has from time immemorial claimed, if not the foremost place, at any rate a very high place indeed among the live stock of the farm; and rightly, for what



the Irish tenant farmer's fate would be where he deprived of his pigs it would be hard to say. The reader notices I say pigs, in the plural, not pig, for here is where the tenant farmer in Ireland, occupying a holding of perhaps 40 acres, differs from the Canadian farmer who works 100 acres of his own; on the first farm we find from two to four good brood sows which are, as a general thing, carefully attended to, and regularly fed; while on the second, we find either one or two sows on over double the amount of land, and in many cases they are looked upon as a nuisance rather than as a valuable source of profit, and consequently, instead of being provided with comfortable quarters and well cared for, they have, in the winter, to take their chances in a barnyard full of horses, sheep, cattle, etc., and there fight for every morsel of food they eat, running the chance of a vicious thrust from some ill-tempered cow's horn, and, as I am sorry to say, in many cases a savage kick from the equally ill-tempered hired man, while he mutters angrily that "the dog-goned thing is always in the way." In the summer they have to grub along the roadside for a living for themselves and probably a family of half-starved young ones, varying the monotony of such a life only by breaking into the neighbor's barn and potato-field every time they can find a place in the fence to thrust their noses into.

But I think I hear some of my readers say, pigs don't pay any way, pork is too low nowadays, there is no money in it—quite so, my friend, I do not think there is myself, if, and here is where the rub comes, if you go about raising your pork like a good many of my neighbors do, and that is by caring, or rather not caring, for them as described above, using a mongrel boar, because it is too much trouble to take the sow a little further from home to a pure-bred one, breeding from a sow five or six months old, instead of allowing her to get her growth first before you expect her to find the materials to build up seven or eight young pigs, and finally raising five or six pigs out of a litter of them; why, because the sow lay on two the night they were farrowed, and a third rolled away from the rest into a cold, damp corner of the sheds and died, so three were lost because no one was by that might attend to the mother and her little ones, and then a few nights later that "plaguey" sow trod on two more during the night. Why? Because the boy forgot to feed her, and so she was up and down all night, looking for something to satisfy her hunger instead of lying comfortably in a warm bed of straw, with her little ones all in a snug warm heap beside her. Yes, my friend, I quite agree with you there is no money at all in raising pigs or these principles; but if you ask me if pigs can be made to pay if properly attended to, kept in warm quarters, and fed regularly, my answer would be most decidedly in the affirmative; for, after an experience of eight years in farming and stock raising in Canada and the United States, I have come to the conclusion that there is no animal on the farm that will give a quicker return for, or pay bigger interest on, the money invested in her than a well-bred sow. But in pig breeding, as in all other branches of stock raising, in order to realize the top market price it is necessary to have, not only a first-class animal of its kind, but also to have the kinds the market calls for; in proof of this let me point out to you that, while a few years ago the demand from pork packers was very largely for heavy fat hogs for mess pork, of late years they have been paying much more attention to the English trade, which calls for long lean sides and medium sized hams, consequently pigs weighing from 125 to 140 lbs. dead weight, that a few years ago would not have found nearly so ready a sale as a pig

weighing from 80 to 100 lbs. heavier, are now quoted at a much higher price. Granted, then, that we have selected a well-bred medium-sized, lengthy sow, calculated, if properly mated, to produce such pigs as the market now calls for, what are our prospects of obtaining a satisfactory return from her? It does not seem to me a difficult matter to figure on; with a reasonable amount of care and proper food our sow should, in the ordinary course of things, yield us two litters a year, with eight pigs a litter, taking one year with another these pigs should realize as two dollars each at weaning time, and here we have a yield of thirty-two dollars from our sow in the year. Now after carefully examining the food rations by some of the best English breeders and feeders, estimating their cost, and comparing the result with my own experiences, I am satisfied that the cost of keeping a brood sow of one of the larger breeds should not exceed from sixteen to twenty dollars per annum, and we thus have a money profit of from twelve to sixteen dollars, and the manure, which is in itself a very valuable return to be placed against our labor in attending to the sow and her young ones until weaning time.

In a future paper I shall endeavor to give you my experiences in raising young pigs, both for breeding purposes and for fattening, and also as to the care and attention necessary to breeding pigs both male and female.

BLUE BLOOD.

For the CANADIAN LIVE STOCK AND FARM JOURNAL  
Grain vs. Stock.

The majority of the farmers of Canada follow the plan known as mixed farming: grain-growing and stock-raising combined. This seems the ordinary rule, and from the circumstances of our country will probably always be so—yet in this mixed farming there are extremes very widely apart. So limited is the amount of stock kept by some farmers that they are practically giving all their attention to the growing and marketing of grain. Others there are who, while raising good crops of the coarse grains, sell nothing—or almost nothing—from the farm except what walks away on its feet. These latter are grain growers for stock feeding. Many of them have got beyond that stage, and are grain buyers for stock feeding. If the grains they have grown are bringing a good price in the market, while others equally good for feeding are low in price, then one is sold and the other bought. It is true that the prices of stock have been in some cases low, very low; but the farmer who is depending on the returns from the sale of his grain is this year in a much worse position. Now is the time for such to turn their attention to stock, and see if there be not a way by which they can realize a better return for coarse grains than selling them at the low prices now current in our markets. It is true that this low price of grains may not continue, but even if it should not the gradual increase of our stock-raising in Ontario is what should be steadily pursued. The virgin freshness of our soils that years ago gave 40 bushels of wheat now gives a crop less than half that quantity. Grain-growing gradually but surely robs the land; stock feeding gradually but surely enriches the land. There are farms that have for years carried a heavy stock of feeding cattle. One acre of this land will raise now as much grain as two acres of a neighboring farm, where no stock of any account has been kept. There is a large amount of land in Ontario that has been farmed on the grain-raising plan that must have a change to stock or it will not pay the labor of working. Much has been done in this direction the past

few years. In many sections the dairy interest has wonderfully increased, and much more may be done in that line. With the low price of some grains many farmers will see it to be to their advantage to keep their grain and feed it to their milking cows. This will be a great good. Having found the value of a good grain ration it will very likely be kept up to the profit of the feeder and the enriching of the land. Those who have not coarse grain to keep and feed should, at the present prices, buy it and try. Let our motto for the coming year be "Grain for the Stock."

There are hundreds of farmers who lose money every year by wintering their stock on just as little food as will keep them alive till the spring. To all such we say: the grain for the stock. It requires more food to keep a lean steer than a fat one; once into good condition the animal has a coat of flesh and fat that keeps his vitals in order, a very lean animal is easily chilled through, and with every chill there is a loss of tissue which it takes food to replace. Give more and better food and less will be required. Have warm sheds and stables, with plenty of good water, and these will save food and keep the stock in better condition. Let this Christmas time find your stock more comfortable than they ever were before, and let it be the beginning of better feeding than they ever had before. Let the dwellers in stall and stable have their share of Christmas cheer.

Guelph, Ont.

D. McCRAE.

For the CANADIAN LIVE STOCK AND FARM JOURNAL  
Farm Buildings.

There is nothing perhaps which denotes a prosperous and enterprising farmer more than a comfortable lot of farm buildings, for in them there is evidence that not only is stock keeping of some kind or another practiced but also that attention is paid both to the comfort of his live stock as well as to cultivation of his land; for unless stock is kept the fertility of the soil cannot, except under exceptional circumstances, be long retained unimpaired. Barn building has undergone many changes and modifications, and in many parts of the country it is yet possible to see all the different types with the successive improvements from the old log barn which, in its turn, was succeeded by the more pretentious frame structure, up to the bank barn of the present time with all the more modern conveniences. Of late years the improvements in farm buildings have advanced with rapid strides, and barns, which five or six years ago were not only the pride of their owners but also of the surrounding neighborhood, are now considered almost antique and lacking in conveniences, being perhaps eclipsed by several of more recent structure in their immediate vicinity. It can hardly be denied that good well-planned buildings are an advantage to the adjacent country; besides being a comfort to the owner himself, they act as an incentive to others to improve their own, and also enable all intending builders to gain many a useful hint, a hint, which though perhaps small in itself, may yet enable him to effect a saving both of money and valuable time. Farmers are usually a stay-at-home class; their occupation in a great measure necessitates it, yet it cannot be gainsayed that the custom may often be carried too far, and money and time have been saved had a small portion of both been expended in inspecting a few of the best barns in the country. From time to time it has been the practice of the CANADIAN LIVE STOCK JOURNAL, in the interests of farmers, to give a plan of some of the best modelled and most convenient barns, especially of the stable arrangements, that



The Hon. M. H. Cochrane,  
PROPRIETOR HILLHURST STOCK FARM, HILLHURST, QUEBEC.

particular item being of most interest to its readers, and at no portion of the year is this subject likely to be more interesting than now, a season when every farmer is daily at work in his stables, and is perchance planning alterations in the near future. Barn building may be roughly divided into three eras, the time of log barns when the stabling roofs consisted principally of the canopy of the heavens, and the walls the lee side of a straw stack; this was followed by better stabling and open sheds, a common form being a yard enclosed on three sides; while the third period bring us to the improved bank barn. In many instances one or sometimes all of the old buildings of the second period were raised and basements built underneath forming good and comfortable stabling, but as might be expected it is seldom that they are as convenient as where one has the advantage of putting up an entirely new building. The present tendency is to centralize and focus everything into one building, a plan which, although advantageous as regards feeding and some other points, is yet open to some serious disadvantages, especially as regards fire, for in the event of a conflagration everything is swept away at one fell swoop, whereas if the buildings are at a little distance apart there is a bare chance of saving one of them. A short time ago an opportunity was afforded us of visiting the newly erected barn of Mr. Peter Rennie, of Feigus, which is built on the before mentioned principle, and as the feeding arrangements differed from any we have before seen we subjoin a plan of a section of a cross view of the stabling as well as of the ground floor. The barn is placed on a well-built limestone basement 72 x 100 ft. and 9 feet high, and projecting over forms an overshoot of 16 feet, which affords a dry passage in front of the stable doors. The flooring of the stable is formed of 3-inch cedar planks laid in mortar, and will probably last a number of years. One great objection which is noticeable in many bank barns is the want of ventilation and lack of light, the atmosphere being often heavy and the temperature too high: in this barn, however, numerous windows admit an abundance of light and ventilation; in addition to windows and doors tiles are built in through the walls at frequent and regular intervals, and the escape of hot air is regulated at will by opening or closing the large apertures through which hay is fed from the main floor above. The feeding arrangements, as we before remarked, were somewhat novel: meal, turnips, etc., and cut feed, if desired, are fed into mangers from the alleys in front of the stock on the basement floor, long hay and cut feed, if desired, being fed from the main floor into racks; an ingenious plan is adopted for this, *I* is one of a number of doors on the main floor which extend the full length of the stalling underneath and swings back on hinges at the top against the post *K*, being held in its place when shut

by a wooden bolt; *H* is a door which hangs at its centre axis on pivots, and can be turned over by means of a fork, so as to direct the hay into the racks beneath on either side of the alley. Any one who has had experience in stationary racks well knows the difficulty in cleaning out any refuse that may be left therein, this is here obviated in the following way: *F*, the front of the rack, is formed of 2 x 1-inch slats placed between two similar slats at the top and bottom and bolted together, the cross slats at the top are inserted

show that the feed-room occupies a central position and in close proximity to the turnip-cellar and water-supply, rendering the mixing of feed an easy and speedy process. The stalls are spacious, and admit of abundance of room for two head of large cattle in each, a marked contrast to the cramped stalls one sees in some of the older stables. The manure trough behind the cattle is wide but shallow, another improvement over the narrow deep troughs in which many cattle have a trick of backing up and standing their hind feet in, a position which is prejudicial to breeding cows, besides occasionally injuring their hoofs against the sides by slipping.

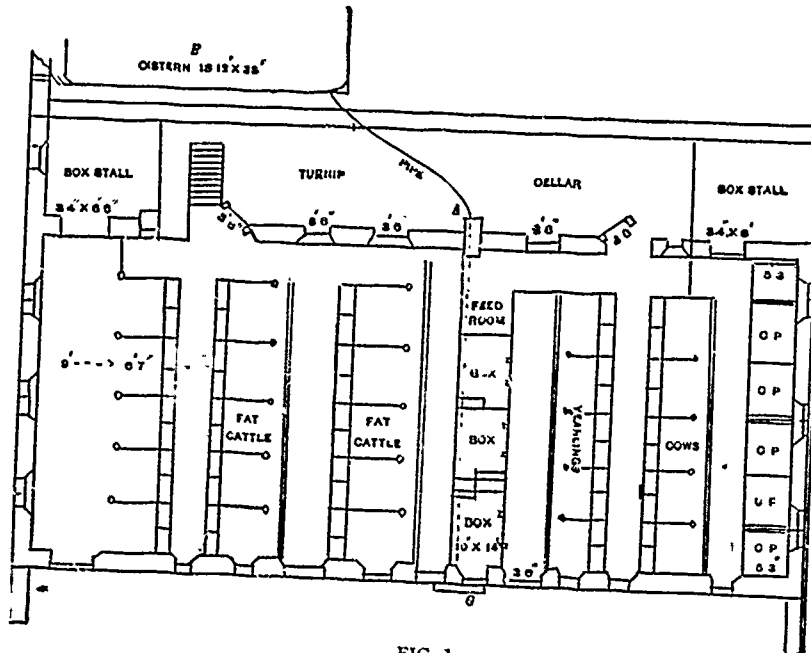


FIG. 1

- REFERENCE TO PLANS.  
 FIG. 1  
*A.*—Water cistern.  
*B.*—Large water cisterns under bridge.  
*G.*—Drinking trough.  
 FIG. 2  
*I.*—Blocks built into walls.  
*C.*—Wooden stanchions fastened at one end to block on which cow chains run.  
*D.*—Mangers.  
*E.*—Tight boarding which form one side of the rack.  
*F.*—Front of racks which swing on the sides of stalls at *A*.  
*G.*—Manure troughs.  
*H.*—Doors which swing on their axis so as to turn hay into either right or left hand racks.  
*I.*—Doors closing apertures through which hay is fed.

The Hon. M. H. Cochrane.

The course is all too common in this life to follow men of note with detraction, if not with positive calumny, while they live, and to laud them extravagantly and build high monuments over their ashes when they have gone from us. So universal is this practice, reprehensible as it is unkind, that to introduce a course the opposite will appear an innovation on the established order of things.

And this is just what we propose to do. We promised in the initial number of THE JOURNAL to sketch, from time to time, the work of eminent stockmen, both living and dead. This promise we have, to some extent, fulfilled, and now, in addition to the pen sketches of those heroes of improvement, we propose to give, from time to time, the portrait of the individual as well as an outline of his work. We are pleased, indeed, to be able to commence this work with a sketch, so true to life, of the breeder whose

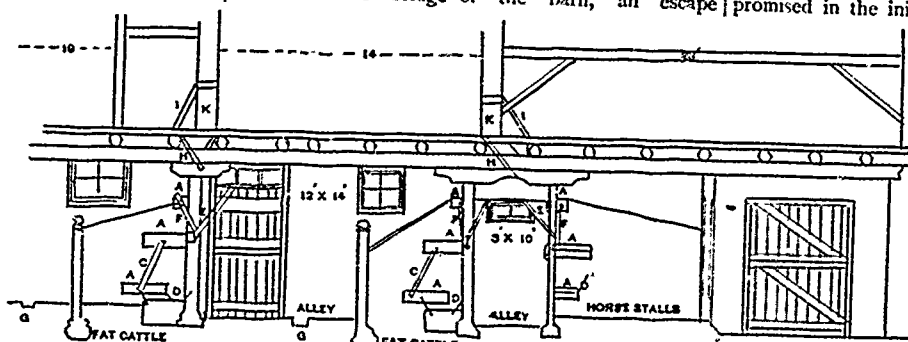


FIG. 2.

pipe being provided in case of an overflow; from this cistern water is led through a pipe into the small tank *A*, and also the drinking trough *G*, situate under the overshoot, both of which by means of a patent arrangement are kept full without risk of an overflow. Altogether we were well pleased with several points in the feeding arrangements in this barn, the plans of which were drawn by Messrs. Brennan Bros, who, we believe, have a patent on the system of watering. A glance at the plan will

name appears at the head of this paper—a gentleman whose successes in the live stock line have been characterized by a boldness that almost startles us, and by a success that, in some of its aspects, is not unlike the story of some pleasing tale.

The Hon. M. H. Cochrane was born in 1823, on a farm in the valley of the Coaticook river, not far from what is now the station of Hillhurst on the main line of the G. T. R. This farm is but a short distance from the present Hillhurst steading, occupied by the subject

of our sketch since he engaged in the congenial work of breeding pure-bred stock. He was in business for some time in Montreal, and retired with a competence that would have satisfied the ambition of men who live for the ignoble purpose of simply living.

Locating on the farm where he still resides, he engaged in the breeding of live stock in 1865. From the first his efforts were on a handsome scale, and characterized by a boldness that would have brought ruin to persons possessing essentially balanced business powers. In 1867, Shorthorns, and Cotswold, Leicester, and Lincoln sheep were imported along with Suffolk horses and Berkshire pigs. His attention was, however, concentrated chiefly on the breeding of Shorthorn cattle until 1881, when the last importation of this class of stock to Hillhurst was made. The prizes won during the autumn of 1868 by the Hillhurst herds and flocks, not only in Canadian but also in American show-rings, reads more like fiction than the facts of sober history which they constitute. It was then that the representatives of the Quebec Legislature presented Mr. Cochrane with a gold medal for the best show of stock in the Province, and for the signal services which he was then rendering to the cause of agriculture. As a further recognition of those services, he was appointed a member of the Dominion Senate in 1872.

Importations of Shorthorns were made annually for several years, and in their selection neither pains nor money were allowed to stand in the way of securing the very best, and this has been a distinguishing feature of Mr. Cochrane's work down to the present time.

It was in 1877 that Mr. Cochrane planned and executed the project of meeting Englishmen on their own ground in the sale ring with a contingent of Canadian Shorthorns. The sale was held at Windermere, and was a magnificent success. It was at this sale that the 3rd Duchess of Hillhurst sold for 4100 guineas, and the 5th Duchess of Hillhurst for 4300 guineas, the highest price ever paid for a Shorthorn in Britain up to that date. The 32 animals sold by Mr. Cochrane at that time averaged £510 3s. 4d.

A succession of sales was held by Mr. Cochrane at Toronto and Chicago from time to time, and prices almost fabulous were realized at these. At the sale held in Toronto in 1876, Airdrie Duchess 3rd was sold to Mr. Albert Crane, of Chicago, Ill., for \$23,600.

Mr. Cochrane was the owner of the famous 7th Duchess of Airdrie, which, along with 15 of her progeny, bred at Hillhurst, netted him the astonishing sum of \$175,000, an amount unparalleled in the annals of live stock breeding as the returns realized from one animal and her progeny in so short a time.

Ayrshires and Jerseys were also successfully bred at Hillhurst for many years. Many of the animals so bred sold for high prices, and contributed to the fame of the work done at Hillhurst.

In 1881 we find Mr. Cochrane in England and Scotland, busily engaged in making selections of Herefords and Aberdeen Polls of the very best individuality and breeding. These are receiving the larger share of attention at Hillhurst at the present time. No word of praise from us in regard to the excellence of these respective herds would be in place after mentioning that in the leading exhibitions of the Dominion last autumn they carried away the herd prizes for both breeds.

But one of the boldest of the ventures of Mr. Cochrane was the establishing of a ranch in the Northwest on a scale that is far ahead of anything of the kind that has yet been undertaken in that country. Ranching under any circumstances has proved a somewhat hazardous and uncertain venture, and colossal fortunes have been buried in this way in many instances all along the snow line of the eastern base of the Rocky Mountains. But here, as indeed in nearly all his former

undertakings, Mr. Cochrane has been followed by the magic wand of financial success.

In 1881 the first venture of this nature was made in the great lone land when Mr. Cochrane went to England and imported about 100 pure-bred yearling Aberdeen-Angus and Hereford bulls. These were sent on the perilous journey of their destination *via* Chicago and St. Paul, from there by the Northern Pacific to Bismarck, and thence about 1100 miles up the Missouri river to Ft. Benton. From this place they were sent over 300 miles to the Bow River to a place west of the junction of the Elbow river, where Calgary now stands. The same year there was purchased in Montana over 4000 head of mixed cattle, and in 1882 about the same number from the well-known Point Dexter and Orr herd. Since 1882-3 the success of the venture has been exceedingly encouraging, the ranch being stocked in Oct., 1889, with no less than 10,400 head of cattle.

During recent years the benefits arising from the use of thoroughbred bulls has been very apparent, as shown in the prices realized for steers sold and killed, of which the 1079 disposed of in the year ending October, 1889, averaged over \$50 per head.

During the last three years this ranch has been managed by Mr. W. F. Cochrane, a son of the Senator.

We look upon the career of Mr. Cochrane as unparalleled in its successes in the breeding and handling of live stock in Canada, if not indeed in any country. He, during his lifetime, has by these successes, and by the benefits flowing from them to the agriculture of Canada, carved his own enduring monument, and we hope that he may be long spared to reap the fruits of his well-earned successes.

### The History and Breeding of Bates' Shorthorns.

THE WATERLOO TRIBE.  
By R. GIBSON, Delaware, Ont.  
(6TH PAPER).

If by act of courtesy, the Oxfords were considered in these papers after the Duchesses, surely by right, the Waterloos must come next.

During the late depressed condition of pedigreed stock, no tribe has sustained its values as well, or gained greater friends. As a rule they are thick fleshed, round ribbed, broad backed, mossy coated cattle. Good feeders, good milkers, and good bull breeders. If one wants to do a bit of showing, we know of no tribe we would sooner recommend for that purpose. Memory carries us back to the Wolverhampton Royal, and the winner of 1st prize in the cow class, a Waterloo, a neat round ribbed smooth cow with an udder the sight of which would cause a London dairyman to break the tenth commandment. At same time the noble Edgar won 1st in his class, and never shall we forget the evenness and depth of his flesh, and his commanding appearance as he walked past; he came from one of the herds where Waterloos were appreciated.

But few tribes have a better record in the show ring; take only last year for instance. The 1st prize two year old bull and champion of all ages at the Jubilee Royal held at Windsor, as well as the 1st prize sweepstakes yearling at Buffalo and Detroit, and also grand sweepstakes winner at the latter show, were both of this tribe. At the Royal the second prize cow and 2nd prize two year old. At the Highland Society Show, 2nd prize cow, 1st two year old and 3rd prize calf were of this tribe. And another at the Great Yorkshire for cow of any age and two or more of her produce in unbroken order of descent, won second to Mr. Thompson's sensational winners from Inglewood. As bull breeders their reputation is increasing

yearly, and we believe there are more good Waterloo bulls in use in more good herds than can be found of any other tribe. To name all of the most prominent herds using them would take up too much time, but we would say to any doubting Thomas, go to Underley, Kimbolton, Sholebroke, Penthyn, King-scote, Berkeley, Ruddington, Elmhurst, Portworth, Gordon Castle, Mertoun Castle, and see for yourself. We believe they are the coming Bates tribe, and would urge those owning them to be particularly careful what crosses are used. How much would we like to see the result of blending the Lord Palworth branch with that containing the Red Knight cross; we would expect great results, both in strengthening the constitution and increasing their flesh-carrying propensities.

That astute breeder and original thinker, Mr. Bolden, who, against great opposition and entreaty, followed his own plan and refused to be led by party cry, crossed Booth on Bates, Leonidas on Duchess 51st, and Bates on Booth, Grand Duke on Rachael. He had the courage of his convictions to follow out his ideas without fear, and was so fond of the family that, after his sale, he confined his attention to almost the Waterloos alone. Did he foresee their value? and are we only just beginning to appreciate them at their true worth?

To avoid being too enthusiastic we must withhold, after saying that no tribe with which we are acquainted maintains its characteristics so forcibly as the Waterloos, no matter what blood is introduced. At about the top of the Bates Tribes to-day, it still maintains its superiority when crossed with Booth blood. Can there be named another tribe that is equally good with the one strain as with the other?

No matter what blood is used the strength of the current in the Waterloos seems to flow on undisturbed like a creek running into a river, the volume is added to, but the direction is unchanged.

When we dig down to the root of the pedigree, we can readily understand why it should be of such intense prepotency.

The first recorded cow was by Waterloo, a pure Princess and sire of Belvedere, and her dam also by Waterloo. So we see the blood of R. Colling's White bull again selected by Mr. Bates for establishing a family. The more we work out these old pedigrees, delving down to the very bottom, the more valuable one finds the blood of R. Colling's White Bull tribe.

The first recorded cow is Waterloo red of 1829, bred at Thorp, in the County of Durham; she was purchased by Mr. Bates in 1831, and grew into a very fine cow, she was sent along with 4 others to Mr. Whitaker's, Norfolk, the produce was Waterloo 3rd.

The late Mr. Torr informed the writer that he considered the Waterloo cow the best in the Kirklevington herd, and so much did she take his fancy, that he determined to have one of the sort when an opportunity occurred. It is a matter of history how well he succeeded, and how much the descendants of his Water Nymph by Vanguard, have been sought after, and the successes achieved by them in the show ring. At his sale in 1875, 21 descendants averaged \$1275.

For the CANADIAN LIVE STOCK AND FARM JOURNAL.  
Our Christmas Cheer.

It is true of an Englishman that he always looks two ways for Sunday: that is to say, he will talk about what he had for last Sunday's dinner, till Wednesday, when he begins to think of laying in the coming Sunday's dinner. Equally does he look

two ways for Christmas. It is astonishing to notice the cool way he sets about it. In the month of June he will buy a hatch, if he be a small tradesman, then a nice young lap-eared rabbit, every day he will feed it with vegetable parings, and turnip tops, and cuddle it, and weigh it, and on Boxing Day if you ask after his pet, will tell you as he smacks his lips that it was "really delicious." Truly, if an Englishman's house is his castle, his belly is the temple of his god, whether that god be goose, turkey or roast beef. In Scotland it is different, Bacchus being there worshipped on the New Year's Day, with much devotion on the finishing strokes of the year expiring. It is difficult to fathom the reasons for an Englishman's intense love of good solid nourishment at this season. I suppose in the olden times when flesh meat was rarer amongst the middle classes, the Monks and Barons roasted a few oxen during the festive period, and gave the portions away. This is still done at Windsor, as well as at the houses of some of our old feudal families, though of course, only the poorest think of participating in the rude feast, which is washed down with horns of strong home-brewed ale.

In Scotland, as we know, cattle are specially fed for the London Christmas markets, which will commence in a fortnight. That it is as paying to a business man as it was ten years ago, is doubtful. In the first place store cattle are very dear, in fact, good store cattle are scarcely procurable at home, hence the demand from Canada. Then all somehow manage to send their cattle up to the Metropolis at the same time, the effect of which is found to be a great glut, and the return of prices from the London agents, which preclude all idea of a profit. Attempts are being made to try and regulate this, but let them take what steps they can, the middle-man is certain to come out the winner. Just now beef is to some extent, checked in price by the large quantities of game, which is sent into the poulterers from the country houses, where large shooting parties have been taking place. In ten days or more the glut will be on, then people get fully satiated. Blue pill and black draughts get a turn, and those who would have insisted a week or so previously, on having the very best of roast or boiled that money could buy, will be content to go all day on a couple of pork sausages, and a pint of ale. The markets being therefore so unsteady at this time, there is a considerable rush here in catering for it.

So far as I can gather, there has been no attempt as yet, made by the Aberdonians to carry off any of the champion cups with the Canadian bred steers they have been importing. This is to be regretted as in the interests of the trade with the Dominion, one or two specially selected animals ought have been chosen for that purpose. Of course the competition would be very keen, the best animals in the world being pitted against any opponents, yet all the same, the blue riband of beef raising ought to prove worth trying for. That the United States would make a bold bid for such a prize is well known, but States' cattle have to be killed on landing, and only dressed meat competitions are open.

The great show at Smithfield opens on Monday, with the usual display of fat stock, and Scotland, as usual, will be well represented. Mr. Clement Stephenson, being there as on last two years, in great form with Polled Angus. Her Majesty the Queen is said to be specially strong, and with the champion of this week's exhibition at Birmingham, a Shorthorn, should be hard indeed to beat. It is said that a better is kept in reserve, and if this really be the case,

the destination of the beef blue riband is the famous Shaw farm at Windsor.

Richmond, Eng.

THOS. DYKES,

For the CANADIAN LIVE STOCK AND FARM JOURNAL.

### The Families of Standard Bred Trotters:

The enormous interests now involved in the breeding of trotting horses, has led to very careful search into the pedigrees of all horses which have made a name in the world of horsemen. Many earnest men, and many well equipped editorial staffs are constantly at work tracing pedigrees and noting results in the form of a careful and elaborate record of races and winners. So that now almost every horse or mare of prominence stands credited with all results in the production of speed to which they are entitled, while at a glance may be seen their inheritance of blood, in pedigrees extended through every generation in which merit in producing speed, or in displaying speed at the trot, has been recorded.

The result is wonderfully decided in producing impressions as to the relative value of families, there being no room for question as to which is the strongest trotting inheritance. Of course, such analysis as that referred to cannot select the best individuals. There is a power of reproduction varying in every individual, which can only be tested by results, and it may be that animals have been gelded, which, with opportunity, would have excelled the most famous sires.

But on the subject of family or average value, the records give most clear and decided answers to the question of merit. By the records, by far the greatest family of trotting horses is that descended from Hambletonian 10; his sire was Abdallah. First of all trotting sires in point of time, he is properly number one in the trotting register. The second family in rank, is that of Mambrino Chief 11, son of Mambrino Paymaster. These two greatest of all progenitors of trotting horses, are of the same descent. Both are directly in the male line descended from Mambrino, a thoroughbred horse, son of an imported English horse, Messenger. The line to Hambletonian is Mambrino, Abdallah, Hambletonian; and that to Mambrino Chief 11, is Mambrino, Mambrino Paymaster, Mambrino Chief; in each case three generations. Next to this great Mambrino line comes that of an imported Barb, Grand Bashaw, which, so far as speed at the trot is concerned, begins with Andrew Jackson 4. His line is Grand Bashaw, Young Bashaw, Andrew Jackson; again three generations. From Andrew Jackson have come a number of families. These are principally Clays, Patchens, Long Island Black Hawks, and Bashaws, and the representative Clay families of to-day, those of the Moor 870 and his son Sultan 1513.

Next in importance probably come the horses descended from American Star, spoken of as the Stars. American Star, progenitor of this family, was, and is yet, usually believed to be a thoroughbred or of thoroughbred relationship, but a recent statement represents him working in a draught team, and a horse of unknown breeding. Next in importance are the Morgans. The head of this house, Justin Morgan was of unknown breeding. The statement usually accepted makes him a son or grandson of an imported English horse and out of a mare descended from imported Wildair. In this case again, there are a number of families, all of which trace their descent from Justin Morgan. These are Morgans: Vermont Black Hawks, Lamberts, Knoxs, Morrills, Fearnaughts,

Golddusts, a most numerous and widely distributed race.

Besides these families named, there are several of minor importance, descended from horses which had the pacing gait. The most famous of these is Blue Bull 75, whose descendants in the first generation were of wonderful speed, so much so that he excelled all other horses in the number of trotters in the 2:30 list begotten by him, and most surprisingly effected this wonderful work without any advantage of good breeding in the mares which produced his colts.

Another very favorite pacing cross, is that of Pilot jr. 12, son of a little pacing pony taken from Canada, by a pedlar, and by him sold in Kentucky. Although no pacer except Blue Bull has sired many 2:30 horses, there seems to be no cross so suitable for the production of very high speed, as that of the pacer, in the female line. The daughters of Pilot jr. 12, in proportion to their number, surpass all others as dams of horses of high speed. Excepting the pacing families, all the others are in direct descent from thoroughbred horses, for the Barb, or Arab, Grand Bashaw is of same blood as the thoroughbred, which, as is well known, is of Eastern origin. In the beginning, breeders pay almost all their attention to the sire, but progress makes them change their method, and look equally to the dam, when they try to improve on their work. It may be, that no mare will ever surpass in value the highest priced sires, as has occurred in other races of domestic animals, but even now, the value of some few mares is very great, and it is certain that the value of their progeny is due to them, rather than to the sire which begets them.

Of mares found in trotting horse circles, the greatest is Green Mountain Maid, by Henry Clay 45, by Cassius M. Clay, jr., 20, by Cassius M. Clay, 18, by Henry Clay 8, by Andrew Jackson 4, by Young Bashaw, by Grand Bashaw, imp. The next is probably Waterwitch, by Pilot jr., by pacing Pilot. A short pedigree, but a great mare.

Then—and perhaps she should have second place—might be named Beautiful Belle, by The Moor 870, tracing through six generations to Andrew Jackson 4, and out of Minnehaha, by Bold Chief, the dam of Minnehaha also being in direct descent through Cassius M. Clay, jr. 22, from Andrew Jackson 4. After these come Emmeline, by Henry B. Patchen 163. Another Clay horse, bred by Edwin Forrest, Miss Russel, by Pilot, jr. and many others of highly prized blood.

The survivors of these mares, and their best daughters, with the best sons and grandsons of Hambletonian, and a few other horses, descended from Mambrino Chief, and one or two from the Clays, constitute the highest aristocracy of the equine world. These we can scarcely advise our readers to buy, unless their purses are very long, but we can advise them to secure the blood when it can be had at a moderate price, in younger descendants of these for famous horses. A person may buy good standard bred mares, having two or three recognized trotting bred horses in the nearest crosses, and thoroughbred blood for a foundation, for a reasonable price. With such mares, a richly bred stallion should be mated. Every season a few extra good horses come to the front, and no breeder and no family of horses has a monopoly of them, and a breeder with such mares and such a stallion as here described, may happen on a prize, and if not he will at least, find his colts saleable at good prices for drivers.

M. R. L.

"Your paper is most valuable"—HON. A. C. PAPINEAU, Montreal.



### Plan of a Hog House.

Of all the animals of the farm the pig has been the most neglected, and especially so in respect to the comfortableness of their quarters, but at present an awakened interest is springing up in hog raising and breeding that will guarantee for this much abused animal better attention in housing, care and food. The last annual report of the Wisconsin Experimental Station gives a plan of a hog house and some of its fittings that we think worthy of a place in our columns. The device that facilitates the feeding of the hogs is especially commendable, and we have no hesitation in endorsing it having seen it in operation on a number of farms. The plan as a whole may need to be slightly modified to suit special requirements, but the main features should find favor. Mr. L. H. Adams, of that station, who drafted the plan gives with it the following description: By referring to the ground plan it will be seen that the dimensions of the building are 70x24 feet outside measurement, with 16 foot studding. It should be placed with its greatest length east and west, with sleeping rooms and yards on the south side for sunshine and warmth. At one end of the building a weighing and storeroom is entered through a door sufficiently wide to admit a swill cart, this room is 13½x24 feet, and is provided with a chimney and all the facilities for heating water, weighing hogs, etc. A feeding alley four feet wide leaves this room and extends the entire length on the north side of the building. In the plan as here given, there are seven pens, each seven feet nine inches wide in the clear; a tight partition reaching to the ceiling, 6 feet 11 inches back from the feeding alley divides these pens into two apartments, the feeding and sleeping rooms. This partition also serves to support the joists for the upper floor.

It will be observed that no more space is given up to the feeding rooms than is absolutely necessary, as the hogs are driven back into the sleeping rooms after each meal through small doors (designated by dotted lines in Fig. 1) that slide up and down in grooves and are operated from the feeding alley by means of ropes that run over two small pulleys screwed into the ceiling. A large entrance to each of the sleeping rooms from the feed rooms is also provided, so that an attendant may enter any pen without disturbing the occupants of the adjoining ones. The partitions that separate the feeding rooms from each other are three feet high. A series of doors, three feet wide through each division, afford a satisfactory means of handling the hogs, either on the scales, or when loading them into wagons at the opposite end of the building.

A very convenient device for keeping the hogs back from the trough when pouring in swill (see Fig. 3), needs only to be seen to be understood and appreciated. It is a simple door hung over the center of the trough that swings and catches on either side of it by means of a wooden bar that raises up and

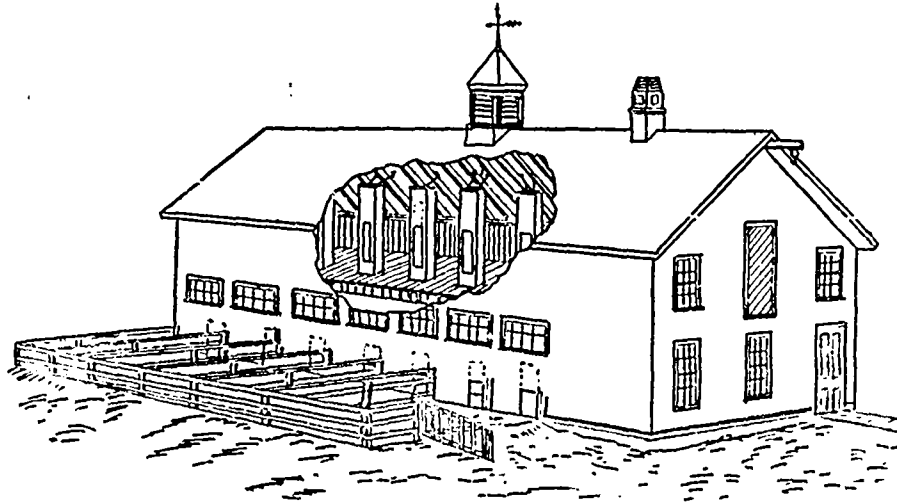


FIG. 1.

down through iron staples. A 4x4 is sufficiently strong to support these doors; in the cut it is represented as 4x6 through mistake.

We now come to the sleeping rooms and as these

through a ventilator on the top of the building; the draught is regulated by means of a sliding door at the bottom of each shaft. By making openings into these chutes, in the upper story, an excellent means of distributing bedding to any sleeping room is provided. Sunlight enters the sleeping apartments through windows four feet wide and two feet high.

We now come to another important feature of the building that must be considered in connection with the sleeping rooms, for they should always be together; I refer to the series of yards on the south side of the building. Each pen has a yard in connection with it that reaches back sixteen feet. Constant access to this yard is had by means of a small door that is left open all the time, unless the weather is very cold, so that all droppings may be deposited outside of the building; this will be done if the yard

is not allowed to become clogged up with litter and filth. The outside fence of this yard is made permanent, with a substantial gate hinge at each end (see Fig. 1), the division fences are made so that a ten foot panel may be lifted out to allow a wagon to pass through and gather up the manure. It is not advisable to have these yards reach back more than six feet on account of the extra work in keeping them clean and gathering up the manure.

Mr. Theodore Louis, a prominent and successful swine breeder of this State, has suggested that these yards be floored with plank

laid in water lime in order to keep out vermin and reduce the loss of manure to the minimum.

Now a word about the height of the building; our farmers are coming to learn that the foundation, floor and roof of a structure are the expensive portions, and, as storage capacity is always in great demand on the farm, why build a one-story hog house when a little more outlay for boards and studding, gives such a large upper room for bedding, or if not wanted for that, it will be an excellent place for storing farm tools away for the winter, plows, harrows, cultivators, and those tools that are only used for a short time in the summer.

To sum up, the features of this building which we wish to emphasize, are:

1st. The manner of separating the feeding and sleeping-rooms, which insures a clean dry place to feed.

2nd. The facilities for ventilation and light.

3rd. The system of yards by which the sleeping-rooms are kept clean and the hogs permitted to have exercise at will.

"The CANADIAN LIVE STOCK JOURNAL is worthy of a place on the table of every Agriculturist in the Dominion."

JAMES BAINE, Zephyr, Ont.

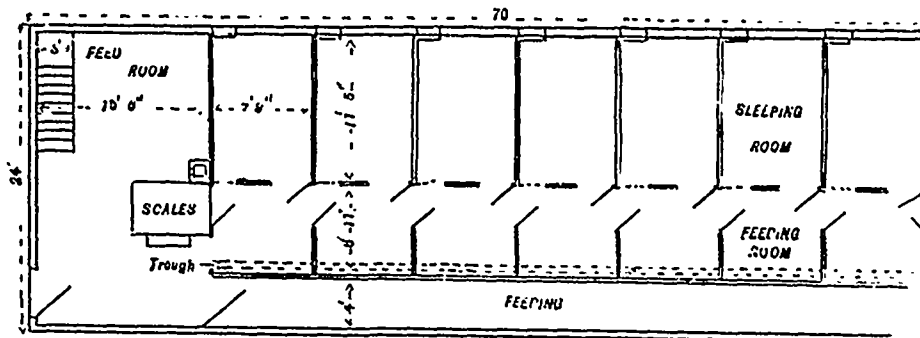


FIG. 2.

are where the hogs spend most of their time it is important that they should receive careful attention. These rooms are eleven feet five inches by seven feet nine inches, inside measurement, and occupy the south

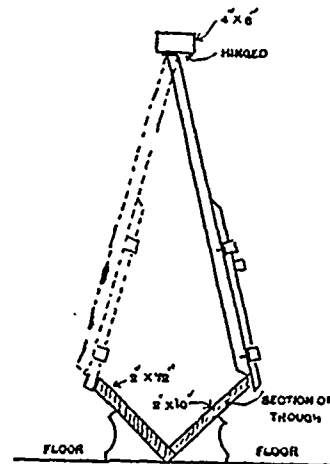


FIG. 3.

portion of the building. Each room is ventilated by means of a shaft two feet square, that reaches from the ceiling to within three feet of the roof (see Fig. 1). From this point the foul air escapes

### With the Stockmen.

#### THE COMMENTS OF A RAMBLER.

(Continued from last issue)

#### THE HEREFORDS OF MR. STONE.

The Herefords of Mr. F. W. Stone, Guelph, are very numerous, numbering at least 250 head, young and old. It is unquestionably the largest herd of Herefords in the Dominion, and all rests upon foundations pure and good from some of the choicest herds in England. There is no difficulty here in getting variety, and there is wide room for selection amongst the scores of bulls and females in the herd, of all ages and sizes, and embracing a good many different types in conformation.

Not one individual of the herd is overfed, so that there need be no fear from this score in making purchases. Every animal in the herd is almost sure to prove a breeder. Some of them would indeed stand a little more flesh with advantage, but it is not easy to have every animal in the bloom of condition where a herd numbers 250 head.

Some of the cows of this herd are venerable with age and yet breeding. They are not so prime looking, of course, as in the days gone by when they bore away the coveted reds time and again from the leading show rings of Ontario, adding one laurel after another to the long list of honors deservedly won by Mr. Stone during a long succession of years at that period when the foundation of some of our best herds was being laid.

#### MR. MCCRAE'S GALLOWAYS

During many years Mr. Thos. McCrae, Guelph, has fought the battle of the Galloways with a most unflinching determination. The herd is still fresh and rosy with the prime of vigor. There are several good bulls in the herd of different ages, some the get of the renowned Hardin, and some by the no less famous Crusader. The magnificent bull Commonwealth is now sold along with some females to go to Pennsylvania. Notwithstanding this draft intended purchasers may still get almost anything they want.

I have often thought it a matter of regret that farmers who have not the best of accommodation for cattle in winter would not use Galloway bulls for the production of store steers. Their extreme hardiness would enable them to face the hazards of exposure with but little risk, and their admirable grazing qualities would render them profitable to the breeder. Both Mr. McCrae and Mr. Keough, of Owen Sound, have demonstrated to a limited extent at least their excellence for purposes of crossing upon the common stocks of the country.

#### THE BERKSHIRES OF THE MESSRS. SNELL.

In the minds of the public there is no little confusion regarding the work carried on by the sons of the late John Snell. Everybody knows that they are famous as breeders of Berkshires and Cotswolds, although many are not aware that the work is carried on by two distinct firms; the first of these is known as the firm of John Snell's Sons, of whom J. C. Snell is the head; and the second operates under the designation of J. G. Snell & Bro., of Edmonton. These establishments are located on farms lying alongside of each other.

Both firms are very well up in Berkshire pigs and Cotswold sheep at the present time. Imported sows and boars are plentiful, and each firm has breeding sows and young pigs in abundant supply. Both have unsurpassed flocks of Cotswold sheep. The shearing imported ram of J. G. Snell & Bro. is simply perfect, and the home bred ram lambs of both firms are a fine robust even lot.

The trade in both Berkshires and Cotswolds has been unusually brisk this season, and both firms are concluding to enlarge their operations in these lines respectively. They are still convinced that the pure Berkshire is equal to the Improved Yorkshire in the quality of its meat when rightly fed, and ahead of it in the quantity in proportion to the food fed. This is another question that might profitably be answered by the Guelph Experimental Farm.

#### THE HEREFORDS AND ABERDEEN-ANGUS CATTLE OF MR. POPE.

Mr. R. H. Pope, M.P., of Cookshire, P.Q., still keeps Herefords, though the herd is much reduced of late through sales. Of the Aberdeen-Angus cattle there is still a large herd, though they are not kept in high condition. This herd represents many lines of breeding; it has been built upon importations from the best herds of Scotland. The calves are allowed to suck the dams until they are about five months old when they are weaned, and the cows are then milked for a few months longer before they are allowed to go dry.

To any one wishing to get animals descended from noted ancestors, and kept under conditions favorable to productiveness, this herd affords ample scope for selection, as the majority of the herd are required to rough it much the same as the native stocks in their own country. Those who have sufficient reliance in their own judgment to enable them to select surely from animals that are not over-fleshed, can get individuals in this herd carrying the blood of some families renowned in Scottish show-rings.

The flock of Cheviot sheep, built upon an imported foundation, is a good one. It amused me not a little to notice how instinctively, as it were, they chose the rocky ledges as a place for observation, or for lying down upon.

#### MR. JUDAH'S HEREFORDS.

Mr. Judah lives in the valley just below the Hillhurst Station. On his fine 400 acre farm he keeps a nice lot of Herefords, about sixty in all, and all bred on an imported foundation. The young cows and heifers have a good deal of resemblance in conformation, furnishing another illustration of the good that follows from the use of a prepotent sire of a useful type. They were got by King Pippin 24212 (7063), bred by Mr. W. E. Britten, Stapleton, Presteign, Eng., and imported by Mr. Judah. King Pippin carried in his veins the blood of prize-winners of a high order. His place in the herd is taken by the Duke of Chadnor 23117, a son of Mr. Cochrane's Cassio, and a bull of excellent parts. Owing to the large amount of pasture land over which this herd roams at will they are in a fine condition for breeding, hence purchasers may feel safe when they invest with that object in view.

It is a considerable advantage to intending purchasers to be able to see several fine herds in one locality. Breeders of any class of pure stock do well when they encourage others in the neighborhood to embark in the same line, for purchasers who might hesitate to visit a single herd will seldom fail to do so where they can get a number in one locality. The Hereford herds of Mr. Cochrane, Mr. Judah, and Mr. Vernon (to be described below) are all within a radius of six miles, and all are good. Mr. Judah has a nice lot of heifer calves, one of them the sweepstakes calf of Ontario and Quebec.

#### MR. VERNON'S HEREFORDS.

Mr. J. Walter M. Vernon has done a good work in the breeding of Herefords at Tushingam House near Waterville, a station on the main line of the G.T.R.

between Montreal and Portland. This herd also is entirely built upon an imported foundation, and has been very successful in the production of animals that breed with great regularity. The heifers in this herd are numerous also, and like those owned by Mr. Judah, are, owing to the abundant exercise they get in the pastures, likely to prove sure breeders.

Mr. Vernon is strong in males, having three stock bulls in service at the present time; one of these, Lord Tushingam 19456, is by Cassio 11353 (6849), he has won many prizes, a second, Tushingam 4th 25387, by Tushingam 19450, is also a Provincial first-prize winner; a third, Young Tushingam 2nd 32398, calved 1887, by Tushingam 9450, is, I think I am safe in saying, the best bull of his year in the Dominion.

Mr. Vernon has done a good work in this locality with his Herefords kept for service and sold as stock bulls in different sections of the province. One result has been the production of a goodly number of Hereford steers, which have been eagerly picked up by buyers for both the home and foreign markets.

Long may the good work prosper in which this group of breeders are engaged in this garden of the Eastern Townships.

#### MR. BROWN'S AYRSHIRES.

Near Petite Cote, and also near Montreal, Mr. Thomas Brown is carrying on an extensive milking establishment, the cows of which are nearly all pure-bred Ayrshires. Not content with the good animals already on hand Mr. Brown is importing largely this year again. The animals of the importation, which are said to be very superior, are in the Halifax quarantine at the date of this writing, but will soon be home.

It will be remembered that the Hereford breeders' Association in the United States some years ago placed a registration fee of \$100.00 on all animals of the breed imported after a certain date. By way of excuse it was urged that as good Herefords could be bred in America as in England. If this theory is correct, then why not apply it to other breeds as well and shut off importation? Our breeders generally do not believe that we do not want more fresh blood, for in almost every line they go from year to year to get it to renovate their herds. When the climate of America produces food and pasturage equal to that of Britain we may cease to require fresh blood, but not likely sooner.

#### MR. IRVING'S AYRSHIRES.

Mr. Thos. Irving has bred Ayrshires for many years but the rapid growth of Montreal is of necessity leading him to curtail this work. The cottages of the artisan are springing up with mushroom rapidity where formerly the Ayrshires fed upon their favorite meadows. Mr. Irving's herd is small but select, being composed of the choice animals reserved from the sale of last spring.

The breeders of Ayrshires are to be congratulated on the outlook for their stock. The prices are stiffening without becoming abnormally high, owing in part probably to the increased attention given to dairying.

The condition just referred to is the most desirable for both buyer and seller, for, when the breeder gets fairly well remunerated for his pains and the buyer only gives what he is likely to make out of his purchase, then no hazard is run by any one, and booms, with the inevitable depressions which follow them, are avoided.

#### BELVEDERE STOCK FARM.

The present proprietors of this farm, Graham Bros., of Ailsa Craig, Ont., are carrying on the work of breeding pure Bates' Shorthorns that was so well



begun by their father nearly a quarter of a century ago. The first bull to be used was the Fourth Duke of Sylvan = 3120 =. He was procured from the herd of Messrs. Nicholson, of Sylvan, Ont. After using him two years with good results, Young Oxford = 4059 = was purchased from C. M. Simmons, of Ivan, Ont., to take his place. This bull was sired by Udonas-Oxford = 2549 = that did good service and threw fine stock for many breeders in that neighborhood. He was bred by R. Gibson, of Delaware, Ont. Young Oxford sired the prize cow Maggie that won 1st at London Provincial and 3rd at Toronto, and made a gain from April 30th to Dec. 14th of 395 lbs. After throwing some sturdy calves, Young Oxford was disposed of, having been used for a year. The next to follow him was the Ninth Duke of Sylvan = 3121 = purchased from Messrs. Nicholson. After two years of good service he was succeeded by Elvinas' Oxford = 1762 =, a choice from the herd of R. Gibson. This bull was used with excellent effect for three years and was the sire of many fine animals, among which I may mention Lady Roses' Oxford the sire of the steer of Mr. Okes' that won the silver cup at Guelph Fat Stock Show last year. Next came the seventh Earl of Darlington = 3147 = purchased from R. Gibson. This bull was sired by the famous Oxford Duke = 1280 = that sold for \$2,200 at Chicago. After being used as a stock bull for two years, during which time he proved to be an excellent sire, he was disposed of. He got a calf that won 1st at London Provincial weighing 1130 lbs. when ten months old. Duke of Mara Fourth = 3084 = came next from the herd of W. G. Pettit, of Burlington, Ont. Then followed Rosy Prince 6th and he has been used the past three years with excellent results, he being the getter of many of the young bulls at present here. This bull is a richly bred Bates, being sired by imported Duke of Oxford 6th (46265), and his dam Rosy Princess 7th was got by the Seventh Lord Oxford 17586 that sold for \$3,700, sired by the 2nd Duke of Oneida that was disposed of at the New York Mills sale for \$12,500. Rosy Prince 6th, was bred by Rich Gibson. This bull is an excellent handler, mossy haired, and robust in frame and build, possessed of excellent Bates form. He has a nice front, lengthy quarter and strongly ribbed barrel and thick broad loins.

The females used ever since the starting of the herd have been pure bred Bates in breeding, and an eye has always been kept to their milking qualities, so that now there are many good milk cows in the herd. The first females were Rosettes from the herd of Mr. John Zavitz, of Lobo; then came Corisandes' from Messrs. Nicholson's herd; next Berthas, from the herd of Messrs. James Smith & Sons, of Maple Lodge, and Chesterfields, from that of John Gibson, of Denfield, Ont.

The young stock now on hand are mainly the get of the seventh Earl of Darlington, and Rosy Prince 6th. On the whole they are a sturdy, growthy lot of good calves and excellent handlers. Amongst their number we may note Baron Chesterfield = 11941 = calved 1887, out Lady Chesterfield 4th, sired by Rosy Prince 6th. He is red with a little white and is a smooth bull, with a nice handling skin and vigorous appearance. Baron Chesterfield 2nd, is very much like his near relative, the first mentioned, in appearance and is straight and promising. The Countess of Darlington, a cow of excellent stamp, now in the herd, is the dam, and Rosy Prince 6th, is the sire, of a good framed nicely proportioned bull, Count of Oxford, calved 1888. A low-set, lusty fellow is Belvedere Chief, a solid red out of

Corisande 2nd, by Rosy Prince 6th. Another nice get of Rosy Prince's is Prince of Alvina, out of Lady Alvina, a roan cow of excellent parts, with strong loin, lengthy quarter, and deep full barrel. Bertha's Oxford, a calf of 1888, out of Bertha 6th, and by Rosedales Oxford 6th, is a good handler and full quartered youngster of good parts.

Messrs. Graham Bros. have also an excellent flock of Leicesters, and amongst them I noticed a couple of very superior ewes of good fleece and grand mutton form.

These gentlemen have also a taking yearling colt, by Alexander Sprague, got by Western Sprague, No. 2289 by Governor Sprague 2:20½, dam by young Anglo-Saxon. He is a colt of excellent build, and if he develops as one would expect him to, from his present appearances, he cannot fail to do good work as a sire of serviceable carriage horses of long wearing qualities, as well as possessors of speed.

### Horns as Indicative of Character.

Much has been said and written on almost every point and part in the make up of cattle, but to our own mind, after a good deal of experience, we think no part of the animal economy (allow us this word) among horned cattle as indicative of what is to be, stands on equality with the horn; especially is this the case in young bulls, for not only does it give one the character of the animal himself but his female as well as male progeny. A well-shaped and well-developed horn in a bull after he is a year old is something that all experienced breeders agree on as being a guide to the consummation of objects dear to the heart of one with a clear and definite form or standard in his mind's eye; not only do horned cattle express their powers as sires in this way, but experienced breeders of Polled cattle lay great stress on the shape of the head or poll in their favorites, and consider it as necessary in its way as any breeder of the horned classes. We are entirely at variance with the sweet head and horn admirers, and not without just and what, to our mind, is thoroughly clear evidence of the lack of true masculine character, and where true masculine character is found it will in reproduction produce true masculine character to a far greater extent than can be done by the sweet and often admired head and horn. There is great diversity of opinion among cattlemen in general regarding this matter, but records left us by men that have devoted their mind and almost all their time in the improvement of cattle, and made it their special study, have always chosen the masculine but well-shaped horn as a lever in their upward and onward movements.

Not long ago we read of a Western cattleman that said it cost him \$10,000 to find this out; he had been a lover of the heifer head on a bull, but his breeding it seems was disappointing, and had made up his mind clearly as to the cause. So long as people will require this sort of thing so long will it be produced for them, but we feel quite confident that if a breeder wishes feminine character well developed in his herd then let him choose masculine character in the animal at its head. We do not wish to be understood as advocating coarse unshapely horns, but we must have a horn good at the base, strong, flat, and balanced pleasingly, if possible, but we would not discard one with a shy to one side, if sprung from the head as if they were a part of it, and not as it were fixed on or attached some time after he had half grown; we like an open texture as indicative of freedom, of growth. On this account we decidedly condemn the altogether too prevalent habit of herdsmen scraping and rasping

and polishing the horns of our cattle; we do not object to a light and gentle smoothing of the surface, but many animals are almost disfigured by this, in fact we see it at almost every exhibition, some of them cut entirely through the outer coat or pith, and the end worked off almost to the quick, they then apply oil and rags to smooth the surface by friction, until, in some cases, it would be out of our power to make a choice and take the horn as a barometer of the future of the animal, which we claim it is. The sooner our herdsmen keep in moderation with this thing, we think the sooner they will fall in line with true, useful, and honest principles. We would like to hear what Mr. Warfield would say on this subject, certainly it demands his pen. The habit is worse in the States than with us, and we hope judges at our shows will justly condemn it when they can; personally we reprove it whenever we see it, and could not select a male when the horn was much tampered with. Hoping some other one will voice this matter,

HERDSMAN.

For the CANADIAN LIVE STOCK AND FARM JOURNAL.

### Our Maritime Letter.

CHRISTMAS GREETING AND KIND WORDS FROM FRIENDS BY THE SOUNDING SEA.

Once more old Father Time has marked out for us a stopping by the way. True, the gay and pleasant associations of the season and its merry-making in a manner sugar-coats the pill, so that we take it as becomes good and sensible children. Still, we cannot hide from ourselves the fact, emphasized to many of us, when we scan our locks with their strong mixture of "silver threads amongst the gold," our stooping figures and slower gait, and a thousand and one other points that warn us that we are ripening, and that each lap brings us nearer to the Great Harvest. Again, when we glance back over the way we have so far travelled, and think of the many friends, kind and true, that have dropped by the wayside, the thought strikes us with a sudden and solemn force that we are in touch with the poet, who most aptly puts it when he tells us:

"As life runs on, the road grows strange  
With faces new;  
And near the end the mile-stones into head-stones change,  
'Neath every one a friend."

But why, at this merry season, need we anticipate that which all of us, let the time be long or short, have to face? If we here "hoe our row" and keep it clean from noxious weeds, when the great Gathering does come we shall be in readiness to meet and solve the greatest of all problems, and be rated according to our doing.

The past season to very many of your farmer readers has been a most bountiful one—our barns and store-houses full to repletion. We have been blessed with peace and plenty; have had us neither wars nor rumors of them. Have we not cause, then, to be thankful and add our share in making glad the hearts of all we can at this our season of merry-making?

Then, again, now is the season of family reunion. Gathered round the family boards of thousands of Canadian farm homes once more are those different members who, for one cause and another, have chosen to leave the "homing-nest." The dear ones in the flesh are again with us—Tom, from the city; Martha, who married the doctor; and, mayhap, Will, the rambler, is home from sea, so that dear old father and mother's hearts are full, and their gladness past expressing.

Another pleasure to us in disguise is the desire, prompted by our own overflowing measure of goodwill to all men, to seek out those of our fellow-men with whom Fortune (the fickle jade!) has not dealt so gently, and aid them also to enjoy and partake of the sensuous festivity. And there are few better provided to help a poor and weary brother or sister than the farmer out of this year's store.

And when we come to think about the matter, after all, most of us will concede, that of the various methods amongst the many as "bread winners," none is so certain of fair success as that of the farmer. True, few millionaires evolve from the active work of the farm. At the same time, the percentage of failures amongst farmers, when ordinary caution and industry are practised, is equally small, and when old age does come, the farmer, as a rule, in more cases than that of any other calling, is better provided against its immediate necessities, and can look back on a life of rugged honesty and usefulness. To my mind, the farmer is the noblest Roman of them all.

Another prominent figure at this season, and one that I, in my younger days, thought much of—and, in fact, it is not a great while since I had a second time to do with him, and I hope to still have other opportunities of communion—is dear old Santa Claus, of hallowed memory; and I trust ere this issue of your JOURNAL reaches its many readers, the more youthful contingent will have had a full measure of "good things" from his liberal hand—numberless rocking-horses, jack-knives, pop-guns, skates, coasters, snow-shoes, mitts, fur caps, nuts, candies, dolls, "Noah's arks," and the thousand and one other wonderful effects of his plethoric store that go to gladden youthful hearts and make children happy. Though it is now many years since Santa Claus' coming has had for me a distinct "personal" interest, so delightful were the pleasurable anticipations of the merry season to my youthful mind that I shall never forget them.

Next to being the recipient of Santa Claus' Christmas favors is that of being aider and abettor in the distribution of his gifts to the younger members of the household. All that I ask for mine is that they in turn may have the same loving recollections of the writer in years to come as "Farmer John" has of the parents long since gone to their rest, and not a little of this kindly seed was sown during the Christmas festivities.

Decorate for Christmas, and make all the preparations you can, so that the young folk may enjoy the special season with zest. It strengthens the ties of

home, and causes roots of love to so spread out from the young sapling—entwined with loving recollections round and about the parent stem—that the storms and trials of a lifetime will fail to break the bonds of such early associations. All these trifles aid in solving the problem, so pointedly brought home to us when the youth of the farm scatter, of how best could we have acted to have kept them on the farm. Making home cheerful is one of the great factors. Yes, by all means, keep up the old custom of Santa Claus' coming. It is but little to do, and is a thousand times worth the doing.

Now, Mr. Editor, you, too, have much to be thankful for in the way of work done. The task of keeping your Journal just a step or two in advance of your readers requires no little effort. As you advance so do your readers, your teaching keeping them stepping on your heels, and giving you no time to loiter by the way. And right well are you doing your work. At this season we are permitted to say complimentary things, and it is not thought out of "form" to do so,

of making two blades of grass grow where only one grows by careless and unthought of methods, but with the capabilities of each Province as a special field in which to produce some special product of the farm. The ground, then, is the farmer's light-house, you the light-keeper, warning us off from the many shoals and sand-bars on which our misdirected efforts are so often shipwrecked, and right well are you doing your work. Each issue your light is more brilliant, and our work the easier in consequence. Keep on, then, in your good work. You have the farmers of Canada at your back, and if they act well their part, as the editor does his, they will rally round you at this glad season and multiply your subscription-list by ten, which could easily be done by each farmer sending in the name of one new subscriber.

In conclusion, I can only wish you and your readers all the compliments of the season, and express the hope that when Time wings Christmas back to us a short year hence we shall all be to the fore, fully prepared to enjoy another revel with Santa Claus, and with a good story to tell of the year's progress; and, also bespeaking THE JOURNAL liberal support—for you know, the editor has to buy his turkey.

FARMER JOHN.  
New Glasgow, N.S.

GEO. BALLACHEY, Edgemount Stock Farm, of Brantford, writes:

"I think very highly of the JOURNAL and have had numerous enquiries and sales for which I have to thank it. I sold all my Shropshire ram lambs, and could have sold more if I had had them."

This is one from many received.



### SHORTHORN OX.

*The Property of her Majesty the Queen, Prince Consort's Shaw Farm, Windsor. Winner of the Elkington Cup at Birmingham Fat Stock Show, 1889, and also best Shorthorn Steer at Smithfield Fat Stock Show, 1889.*

but when this can be said with all truthfulness, then the significance can be better appreciated.

I am sure the readers of THE LIVE STOCK AND FARM JOURNAL will join with me in complimenting you and your esteemed predecessor, Mr. Shaw, on the great improvement of your journal and its usefulness to the farmers of Canada as an educator to them in their chosen work—a Canada covered by your circulation, from the shores of the Atlantic to those of the Pacific. At the date of your initial number little was known of the farming possibilities of our great Northwest—a possibility so vast that, guided by the brain and muscle of Canada's sons, it can be made to supply a surplus over our own wants sufficient to feed the world. In like manner, Nova Scotia and New Brunswick a few years ago were but little known to the Ontario farmer, but through the medium of your journal and other avenues of information, we are becoming better acquainted with each other, not only as men and brothers who are working out the same great problem

### The Birmingham and Smithfield Champion.

For six successive years it has been the happy lot of the "doddies" to count among their number the Birmingham champion, but this year a Shorthorn appears in the rôle of the "noblest Roman of them all," and wrests from strong competitors the Elkington Challenge Cup. This steer also has proved the winner of the first prize as best three-year-old Shorthorn steer at Smithfield. From our English namesake we reproduce two handsome engravings by them, the one of this champion. From the same source we learn that the number of cattle present was not as large as on some former occasions, but that the quality was high, the most of the best feeders and breeders being at least, represented. Of the champion, our contemporary has this to say: The Birmingham champion is a red and white Shorthorn ox, the property of Her Majesty the Queen. He was bred by Mr. Bruce, Inverquhomany, Langside, and last

year he gained the first prize at Birmingham and second at London. He is three years seven months and three weeks old, and scales 21 cwt. 1 qr. 22 lbs. (2399 lbs.) being nearly the heaviest animal exhibited at the Birmingham show, where his victory was well received. The Hereford turn out was not as strong as was expected from that district, there being forty-six entries. Of the Shorthorn display we learn that the number was not as large, but their merit was good. In respect to the Polled Aberdeen-Angus, our contemporary says: Had the twenty-one animals that were entered on this occasion been drawn up in a line, they would have made a display which would have challenged comparison with an equal number of any other breed of cattle in the hall. A very fine lot they were in the aggregate, and to what weights do these smooth symmetrical cattle attain! Comparing the two-year-old steer class with the corresponding class in the Shorthorn section, we find that the weight of the heaviest Shorthorn is exceeded in two instances by Aberdeen-Angus, which turn the scales at 18 cwt. 3 qrs. and 7 lbs. (2098 lbs.) and 18 cwt. 2 qrs. and 14 lbs. (2080 lbs.) respectively, as against 18 cwt. 2 qrs. and 12 lbs. (2078 lbs.) for the Shorthorns. In the older class of steers the Shorthorns, however, more than hold their own in weight records, but the important point is that in the younger and more profitable class, these northern cattle can now in the race for early maturity and weight come alongside of the cosmopolitan breed, which was not the case a good many years ago. There were only ten entries of Devons, which we are told is the smallest number that has been there for years past. There was a good turn out of sheep and pigs, making, it is said, the best showing that was ever made at Birmingham.

**A Champion Red Poll.**

The thirteenth annual exhibition of the Norfolk and Christmas Show Association, is one to be remembered by the friends of the Red Poll, for here one of their favorites was successful in winning the champion prize. There were shown at the show ninety animals, and in the sweepstakes contest, for steers of any pure, cross, or mixed breed, the second largest showing was made, so that there was no lack of competition. The Norfolk (Eng.), *Chronicle* says:—It has never before been the lot of our home herds to win the champion prize, but upon this occasion, Mr. Colman's steer, although opposed by formidable entries of almost every pure and mixed breeds, had a comparatively easy victory in winning the blue ribbon of the show. In consequence of this steer having last year won the chief prize in its class, and the champion prize as the best Red Polled beast in the yard, he could not again compete for those honors, and was entered in the open class of any breed. This bullock has singularly developed since last year, and is now probably the best Red Polled bullock ever seen. It is particularly deep, square, and level, with marvellous rich red hair, and a perfect quality of prime beef. We reproduce an engraving of this winner, from the *London Live Stock Journal*, and from this source, we learn that this steer was bred by Mr. J. J. Colman, M.P., and that it weighed 18 cwt. 1 qr. 8 lbs. (2029 lbs.), being three years and ten months old. Further, they say he was first at Smithfield Club show last year, and is got by

the famous bull Falstaff, 303, from Isabelle, 956, by Norfolk Duke, 127. This victory is certainly a feather in the cap of the friends of the Red Polls. This steer also won the breed cup at the recent show at Smithfield.

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL.  
**Our Manitoba Budget.**

(By our own Correspondent.)

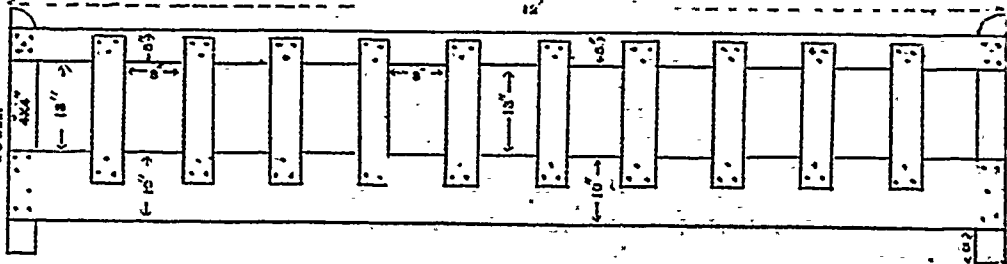
As the year draws to a close, the grain record does not by any means become more cheering. In the west and south-west especially, a large proportion of the yield has proved very poor, only a little better, in fact, than the neighboring section of Dakota, and for precisely the same reason. Continuous drouth aggravated by hot winds and gophers, has fairly wilted crops that promised for a time a moderate yield, and sadly discouraged many a good man. The Menonite and Tobacco Creek districts show still a very gratifying yield, and a township north of Brandon, on which a timely rain fell on June 17th, has given good returns. The northern margin of the province has done fairly well, but the northern margin of the Portage la Prairie plain has done wonders. On the older lands of this plain, smut has had too much of its own way, but nearer Lake Manitoba, almost everything has gone hard and I could name half a dozen men that were discouraged elsewhere, came here a short time ago and are now buying and

same direction is Mr. Glemice, a well-known Shropshire man, from near Guelph, Ont., who has had his third wheat crop. He bought a half section at \$10.00, which is worth to-day close on \$20.00, and has taken 8,000 bushels of wheat off it in this time, besides a little oats and barley. He is carrying, at the same time, 11 head of horses, and close on 60 of cattle. He had last season some 24 cows in milk. On the hard milkers he put two calves and from a very mixed lot of cows, giving all the way from 14 to 40 lbs. of milk a day, making in summer 3,600 lbs. of cheese, worth here to-day close on 12 cents, and will market 500 lbs. of butter for spring and fall, before the year closes. These cows are wintered on straw, chopped barley, and natural grass hay, which is abundant along the southern margin of Lake Manitoba, which lies only a little north of him. All or nearly all of the work here is done by Mr. Glemice and his own family, and he has an interest in a threshing outfit that has this year threshed 47,000 bushels in 36½ days, most of it wheat. There are not too many holidays for a family that hustles in this way, but it is such families as this that make a home on their own land that are the making of Manitoba.

**Crib for Feeding Sheep.**

EDITOR CANADIAN LIVE STOCK AND FARM JOURNAL:

DEAR SIR,—I see in your last issue an inquiry made by Mr. W. G. Mohr for a plan of a sheep feeding-box, or crib. As I am using one that I like very much, I send you a sketch of it. Last year I had one hundred sheep, mostly Southdowns, and I fed them all from these cribs. They are movable, and can of course be made any length required, but the size I give I have found the handiest. Being twelve feet long, they allow twelve sheep on each side to feed at once without crowding. The bottom being perfectly tight, it prevents



SHEEP-FEEDING CRIB.

breaking quarter sections in a season out of the yields and prices made last year. Township 13, range 7, lying a few miles northwest of Portage has out-stripped everything within my knowledge. One of the Sorbys of Guelph, Ont., who came in only the other day has close on 900 acres of land prepared for next year's seeding, for which he paid over \$22.00 an acre, and not so dear when all things are taken into account. I saw to-day, not far from him, a big block of stubble turned over for its sixth or seventh successive crop of grain, that within my own knowledge must have made an average of 30 bushels a year all along. Mr. Cameron, a quarter section man, bought some three years ago for \$1,000 and sold off it last year 3,800 bushels of wheat at \$1.13, with a good yield this year also. McIntyre Bros. threshed 13,000 bushels of wheat in 6½ days, and have just sold at 72 cents. Wm. Davey, who bought last year from K. McKenzie, M.P.P., a quarter with a slough running through it, for \$16.00 an acre, has already from his first crop on 125 acres arable land paid for his farm with a good margin over. A twenty mile ride from Portage in a north-westerly direction through this great level wheat field, all formed into square mile lots, would astonish some of you people who think land not very bad if you have an acre of wheat land with not more than half an acre taken up with the stumps and stones cleared from it. It is some comfort to an agricultural reporter depressed by the sight of very different results, to ride even in the depth of winter over a landscape such as that. Just about twenty miles out in the

any waste of feed, either roots, grain, or hay. They will answer also for young calves. It prevents sheep from getting their wool filled with chaff and other feed. By the enclosed description and drawing any handy man with tools can make them. The cost, if made by a carpenter, would be about \$5 each.

The following are the dimensions: 12 feet long; 2 feet 3 inches deep; 2 feet 2 inches wide; scantling for corners, 4x4 inches; bottom side board, 20 inches wide; top board, 5 inches wide; dividing boards, 1 foot 9 inches long and 5 inches wide, nailed outside on bottom and top boards, using wrought nails and clinching them on the inside. Set side and top boards on level with corner posts, and nail the bottom boards (13 inches wide) on the edge of bottom side board. Make it tight. A narrow board 3 inches deep, set on edge, should form a centre board. This will keep the feed from being shoved from one side to the other. Support the bottom by a cross-piece in the centre. All the material used should be planed, and the edges of the top boards, and also the top side of bottom boards and the upright pieces, both edges, should be rounded, so as not to furnish places for wool to be rubbed off upon. Both ends should be boarded across tight. The 3-inch centre board should be put in with slots at end, so as to lift out to clean the bottom.

Hoping this is not too lengthy, and that it will prove of some benefit to sheep-raisers, I am, yours, etc.,

R. WALTON.

Willow Spring Farm, Peterboro, Ont.

**Veterinary Book.**

EDITOR CANADIAN LIVE STOCK AND FARM JOURNAL:

DEAR SIR,—Could you inform me where I could get a book treating of stallions, giving how and what they should be fed before starting out in the spring.

Kingston, Kent Co., N.Y.

O. S.

Sanders' book on horse-breeding gives considerable attention to this question. It is the best that we are acquainted with. It may be ordered through this office. Price two dollars.—[Ed.]

**Veterinary.**

For the CANADIAN LIVE STOCK AND FARM JOURNAL.

**Difficult Birth.**

By F. C. GRENSIDE, V.S., Guelph, Ont.

Time is very often the essence of the contract in affording relief, where delivery is difficult in the mare, cow, and ewe; consequently a few hints to breeders may enable them in some cases to give aid promptly, and thus avert the bad results to the mother of prolonged paining, and the great jeopardy to the unborn young from delayed birth. A little knowledge, confidence, and judgment are all that are necessary to enable one to rectify the majority of conditions that prevent delivery from taking place spontaneously.

Certainly experience is also valuable. The attendant upon animals that are about to bring forth should avoid being unnecessarily meddling, for while in this condition they should be disturbed as little as possible. An eye, however, should be kept on them in order to observe if any progress is being made towards delivery after paining begins. This is particularly necessary in the mare, for a natural birth usually only occupies from fifteen to thirty minutes. If the period of delivery is prolonged beyond half an hour interference is justifiable, for the foal seldom survives more than an hour or two—three at the outside—but with the cow it is different, and there is not much danger in allowing her to go an hour or two, or even more, before affording relief.

As already stated, if progress is not noticeable in due time an examination must be made. In doing this the hand and arm should be thoroughly cleansed and oiled in order to prevent the introduction of any foul matter, or the irritation of the maternal passage.

The introduction of the hand into the passage is not so easy until the first six inches have been passed, then the canal is larger. At from twelve to sixteen inches from the point of introduction the mouth of the womb is reached. This can be recognized as a ring-like ridge, which varies in prominence according to the extent to which it is dilated. If any portion of the foetus has passed through the mouth it will usually be found of considerable size, but in some instances it may not be large enough to admit the hand until it is pressed through it gradually.

When the foetus is reached it can then usually be ascertained why birth is being delayed, for in nine cases out of ten it is the result of some wrong position of the foetus, which renders it a mechanical impossibility for it to pass through the passage owing to its increased volume. Occasionally, and especially with the first young, and particularly the cow, even although the foetus is in its proper position, the walls of the canal are not sufficiently dilatible to admit of birth by the unaided efforts of the mother, so that help has to be given. The natural position for the foetus at the time of birth is to find the two fore feet with the head between them presented. It can readily be seen how favorable this presentation is for the gradual expansion of the passage. The front of the foetus forms something of a cone shaped mass, the point of the cone coming first, and gradually making room for the circular base. But as has been already stated, deviations from this natural presentation are usually the cause of difficult birth. One naturally inquires the cause of variations in position. The most reasonable explanation of the majority of wrong positions is that when the pains begin and the womb commences to press on the foetus and force it towards the mouth of that organ, if the mouth is not sufficiently opened to receive it, the pressure continuing, turns the presented

position backwards, and a malposition is produced. However, this will not account for all cases, for in some instances there is undoubted evidence that the foetus has been in an unnatural position for a length of time, as shown by the legs and neck being bent and stiffened.

Up to one month prior to birth the foetus is not in the position naturally found at the time of delivery. A month before it is time for it to be born it alters its position to that found at birth, and doubtless it is then that some cases of malposition are brought about.

On making an examination if it is found that the mouth of the womb is not sufficiently dilated, the hand should be gradually forced through it until the foetus is reached, when the fore legs and muzzle should be drawn into the narrow position and left there.

When paining recurs, the force being exerted on the foetus, in the natural direction the passage soon expands to a sufficient extent to allow the foetus to pass. In a case in which the foetus is large in proportion to the size of the passage it may be necessary to aid the mother in its expulsion by drawing on the presented parts. In applying traction to the foetus some care should be exercised in order to prevent any injury to the mother. The drawing efforts should be made simultaneously with the expulsive ones of the mother.

Between the pains only sufficient force should be exerted in order to prevent retraction. In drawing the traction should be applied in a downward direction as this is the natural one, and consequently less opposition or injury is likely to result from following it. When great force is required in order to effect delivery, some advantage may be gained by drawing first to one side and then towards the other. From the slippery condition of the foetus very little grip can be got with the hands, and it is consequently almost always necessary to use ropes with the ends looped over the presented parts. Ropes of the size of ordinary plough lines are very suitable. They should be applied as far back on the foetus as possible in order to take advantage of all power. In order to make an examination of the position of the foetus it is often necessary to tear the water bags. There should be no hesitation in doing so when necessary.

In some cases of prolonged birth if the bags are ruptured early, and paining goes on, all the water is ejected, and the walls of the passage become dry, which greatly adds to the difficulty of extracting the foetus. In such cases some benefit is to be derived from the pouring in or injecting of some lubricant such as oil or cream.

(To be continued.)

**Veterinary Work.**

EDITOR CANADIAN LIVE STOCK AND FARM JOURNAL:

SIR,—I am much in need of a good veterinary book and would be obliged if you will recommend a good work stating the price and where it can be obtained.

Red Deer, Alberta.

J. J. G.

Law's Farmers' Veterinary Adviser is about the best amateurs' work. It costs three dollars and may be ordered through this office.—Ed.]

**A Case of Dislocation.**

EDITOR CANADIAN LIVE STOCK AND FARM JOURNAL:

SIR,—I have a four-year-old horse that has something the matter with his hind legs. After standing in the stable or working they seem as though they were nailed to the floor, but usually only one leg at a time is affected. He will try to lift his leg and it comes up with a jerk and for a couple rods

after coming out of the stable he will lift it higher than usual and then he seems all right again until the next morning. I first noticed it when he was three years old, before he was broken in. Could you tell me the cause of it in the next issue of THE JOURNAL, and remedy if any.

H. W. E.

ANSWERED BY F. C. GRENSIDE, V.S., GUELPH, ONT.

The trouble is partial dislocation of the cap bone of the stifle, due to a relaxed condition of the ligaments. I have known horses in which this inability continued throughout their lives, but never appearing to interfere with their usefulness. It is usually shown in a worse form if the victims are overworked or in low condition.

It is more favorable for such animals to run loose in box stalls. In some cases the application of a cathartic blister, for two or three times at intervals of three weeks results in benefit. The more vigorous the animal is kept the better.

**The Farm.**

**A Simple Gate Fastener.**

In one of our American exchanges, the *Farm Journal*, a correspondent speaks of a gate fastener that for its simplicity, cheapness, and effectiveness will commend itself. It is simply a piece of iron

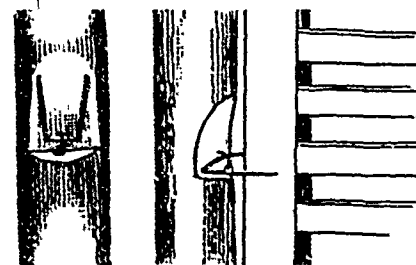


FIG. 1.

FIG. 2.

neatly bent as shown in Fig. 1, and strongly stabled in a notch of the post. Fig. 2 shows how it clasps the gate when it falls. No matter if the post do sag, its effectiveness remains the same. The device will be readily understood from the sketch of it that we reproduce.

**Farmers' Institutes.**

LIST OF MEETINGS TO BE HELD IN JANUARY, 1890.

I. NORTH-WESTERN DIVISION.

Drayton (West Wellington).....	3rd and 4th January.
Tara (North Bruce).....	7th "
Chesley (Centre Bruce).....	8th and 9th "
Teeswater ".....	10th "
Formosa (South Bruce).....	11th "
Wroxeter (East Huron).....	13th and 14th "
Mount Forest and Kenilworth (East Wellington).....	15th and 16th "
Goderich (West Huron).....	17th and 18th "
Hensall (South Huron).....	20th "
Elora (Centre Wellington).....	22nd "

II. WESTERN DIVISION.

Lucan (North Middlesex).....	7th "
Parkhill ".....	8th "
Dorchester Station (East Middlesex).....	9th "
Alvinston (East Lambton).....	10th and 11th "
Glencoe (West Middlesex).....	13th and 14th "
Botany (East Kent).....	15th "
Zone ".....	16th "
Windsor (North Essex).....	17th and 18th "
Amherstburg (South Essex).....	20th "
Tilbury Centre (West Kent).....	21st "
Chatham, (West Kent).....	22nd "

III. SOUTH-WESTERN DIVISION.

Freeton (North Westworth).....	2nd "
Drumbo (North Oxford).....	3rd "

Innerkip	4th
Mount Elgin (South Oxford)	7th and 8th
Shedden (West Elgin)	9th
Waterford (North Norfolk)	10th and 11th
Aylmer (East Elgin)	13th and 14th
Simcoe (South Norfolk)	16th
Selkirk (Haldimand)	17th and 18th
Marahville (Monck)	20th and 21st

IV. SOUTH-CENTRAL DIVISION.

St. George (North Brant)	4th and 5th
Brantford (South Brant)	7th
Welland (Welland)	8th
Thorold	9th
St. David's (Lincoln)	10th and 11th
Hamilton (South Wentworth)	13th
Oakville (Halton)	14th and 15th
Georgetown	16th
Brampton (Peel)	17th and 18th
Weston (West York)	20th
Preston (South Waterloo)	22nd

V. NORTH-CENTRAL DIVISION.

Shelburne (Dufferin)	3rd
Dundalk (South Grey)	4th
Flesherton (East Grey)	7th
Meaford (North Grey)	9th and 9th
Creemore (West Simcoe)	10th and 11th
Tottenham (South Simcoe)	13th
Elmvalle (Centre Simcoe)	15th and 16th
Aurora (North York)	17th and 18th
Markham (East York)	20th

VI. EAST-CENTRAL DIVISION.

Uxbridge (North Ontario)	3rd
Brechin	4th
Lindsay (South Victoria)	7th
Bobcaygeon (North Victoria)	8th and 9th
Peterboro' (West Peterboro')	10th and 11th
Norwood (East Peterboro')	13th and 14th
Warkworth (East Northumberland)	15th and 16th
Baltimore (West Northumberland)	17th and 18th
Bowmanville (West Durham)	20th
Blackstock	21st
Oshawa (South Ontario)	22nd

VII. EASTERN DIVISION.

Pictou (Prince Edward)	3rd
Centreville (Addington)	7th
Inverary (Frontenac)	8th and 9th
Lansdowne (Leeds)	10th and 11th
Algonquin (Grenville)	13th and 14th
Iroquois (Dundas)	15th
Lancaster (Glengarry)	16th
South Finch (Stormont)	17th and 18th
Lanark (South Lanark)	20th
Carleton	21st

Dates 2nd to 22nd January inclusive. Number of meetings, seventy-three.

A Dump Wagon.

One of the most laborious features of farm work is the double handling of wagon loads, whether it be of manure for the field, potatoes being carried to the pit or cellar, or drawing sand or other like material for building purposes. Among the farmers of New Jersey there is a wagon in almost universal use overcoming this trouble, and we reproduce the plan of its construction from the *American Agriculturist*. The

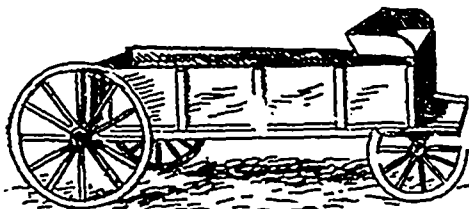


FIG. 1.

whole is described as follows: Fig. 1 is a perspective view of the wagon with apart of one forward wheel removed to show the construction of the dumping part. Fig. 2 shows the manner of dumping. No special running gear is needed as the hind wheels and entire

forward axle with wheels and all can be used. The outer frame has two side-rails each nine feet long, three by five inches, with one end inserted into an ordinary hind axle one foot from each end. The ends of the axle are rounded off and ironed as usual to receive the hind wheels. At the forward end of the side rails a notch 2 1/2 inches deep and fifteen inches wide is cut in the under side, in which a piece of hardwood plank of the same dimensions, and two feet ten inches long, is firmly bolted. To the lower side of this piece is fastened a bolster, six inches wide and four inches thick in the middle tapering to two inches at each end. A staple of five-eighths inch round iron is set midway in the bolster piece, projecting four inches above it, and secured by nuts on the lower ends. A three-quarter inch hole is bored through the middle of the bolster piece, and bolster for the king bolt. Five strong stakes are mortised into each side bar, the front ones being one foot from the end. Two stakes are also set in the hind axle to support the tail board. The side boards, of any desired width, are nailed or bolted to the stakes. The outer frame is now complete.

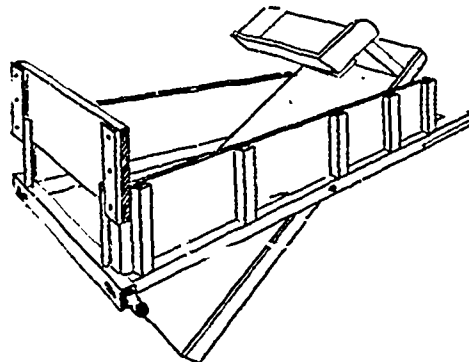


FIG. 2.

The inner or dump frame and bottom are made of a width and length to fit easily into the outer. There are two side bars, each three by five inches, and eight feet seven inches long; a cross piece, six inches wide and two thick, framed into the rear end, and one fifteen inches wide at the front. The bottom is of inch boards fitted and nailed snugly to the frame. The forward ends of the side-rails are notched on the lower side like those of the outer frames to admit the bolster piece, and a slot one inch wide and four long is cut through the front cross-piece and bottom boards, for the staple. Any desired form of seat is attached to the forward end board. This frame is hung to the outer one by a five-eighths inch round iron, three and a half feet from the hind end. The frame is held in place by a pin through the staple in front, which is removed for dumping. The whole is made narrower in front than behind, for the reason that such a form admits of more freedom in turning the forward wheels.

For use, the hind wheels are removed from any ordinary wagon and put on the axle; the king bolt is drawn, and the forward axle, with wheels, tongue, all the forward running gear, is placed under the dumping box and made fast by the king bolt.

For the CANADIAN LIVE STOCK AND FARM JOURNAL.  
The Nitrogen Question and its Importance to the Farmer.

By C. C. JAMES, M.A.,

Ontario Agricultural College, Guelph.

While the farmer has been patiently and, in most cases, laboriously pursuing his most important work during the years of the century now drawing

towards its close; while he has been tilling his soil, sowing his seed, and reaping his harvest, he has, in great part, thought little of, or been almost entirely ignorant of, the fact that many chemists and men of allied scientific pursuits have been quietly and intensely studying for him a problem which may never have even suggested itself to the farmer's mind, but which nevertheless is connected with the most important causes in producing the crops. Some good will be accomplished by this article if the attention of some of our enterprising thoughtful farmers can be thus directed towards this most important question, and if it can be shown that, while they are laboring with hands, and with minds also, in the field, there are men of science—men who are often called mere theorists, and ridiculed as such—who are working with minds and hands in their laboratories, studies, and experimental departments, striving to settle this question, the gain of which will be greater financially to the farmer than to his scientific friend and helper.

What is this question? Simply this: How and whence does the plant obtain its supply of nitrogen? Its practical bearing will be referred to and, we hope, made apparent as we proceed.

The main object and aim of farming is to produce food; the production of other articles, such as wool and leather, is secondary in most cases—they are additional products or bye products. The idea of food production is contained in the old word of Anglo-Saxon origin, *farm* (A. S.—*feorm*), which means to give or contribute food, carrying us back to the days of feudalism when the farmer paid his rental to the feudal baron in produce or in food. This food, which it is the aim and object of the farmer to produce, is both animal and vegetable in its nature. The principal, most important, portions of the animal are the vital organs, the muscles, tendons, skin, hair, wool, which are all compounds of nitrogen, the so-called albuminoids. The nitrogen from which these are all built up is derived simply and solely from the plant. The presence and accumulation of this nitrogen in the plant is therefore necessary to the complete nourishment of the animal, and plants are valuable and valued principally according to the quantity of nitrogen which they contain. We now are absolutely certain whence the animal derives the nitrogen with which its most important parts are built up: it gets it from the plant. The question of whence the plant derives its nitrogen is, we thus see, closely connected with both classes of farm products.

There are only two great possible sources for this nitrogen, the soil and the air. The soil may contain on the average from 0.05 to 0.25 per cent. of nitrogen, and we recognize the fact that nitrogen in the soil is of great necessity, for we place among the most valuable fertilizers those containing large quantities of nitrogen, such as nitrate of soda, sulphate of ammonia, guano, and dried blood. In these and in other fertilizers and in foods the nitrogen is valued at from fifteen to about twenty cents per pound.

Let us turn to the atmosphere. Above and around us we have an ocean of gases and vapors, of which about four-fifths is free nitrogen gas, the same substance that is contained in the compounds of the soil, plants, and animals. Since the atmosphere over every square inch of surface weighs about fifteen pounds, we have the astounding fact that over every acre of farm land, as well as over every acre of waste and unutilized land, we have seventy million pounds. If we could use and value this nitrogen as we do that of fertilizers and plants it would be worth about ten million dollars per acre. There is thus over our farm land that which gives value to soils, fertilizers, plants and animals; there is an inexhaustible supply of that out of which



wealth is made; is it not worth trying to realize upon it? In every clay bank there is a vast wealth of a most valuable metal, aluminum, and just so soon as the scientists of America and Europe have cheapened the process of extracting it, the clays that now are heavy, and in some cases worthless, will become mines of wealth. Would the farmer discourage these scientists from searching after the philosopher's stone whereby these clods of clay shall be turned to metal more useful than silver? So, Mr. Farmer, do you not think it a grand and worthy work for these scientific helpers of yours to continue their search for some plant or some method, whereby this vast ocean of wealth above our heads, which is "as free as air," may be made to give up its riches to the land and to the plant, and thereby to the pockets of those who earn their bread by the sweat of their brow?

You may think there is a contradiction in our statements: plenty of nitrogen in the air and yet worth nothing. There is not a contradiction but a difficulty.

Produce a crop of wheat yielding thirty bushels to the acre, and you rejoice accordingly. Your magnificent crop of wheat, straw and all, contains only forty-five pounds of nitrogen; the question then is as to whether there is any way by which the land and the plants may be made to drink in this nitrogen. The nitrogen of the air is free, it is not in the combined form as found in the soil or in fertilizers.

What a host of questions here suggest themselves! Have plants any power at all to take in this free nitrogen? Are there any plants that have this power more than others? Is there any method whereby man can help the plant to take it up? Can the farmer do anything to enable the soil to prepare it for the plant? The answering of these questions means progress, success, wealth, happiness to the farmer. Some one has said that the atmosphere of nitrogen is like the cup of Tantalus, ever at the lips of the plant but eluding its efforts to drink it in. But the question does not appear to be quite hopeless; it is difficult and baffling, but thereby only demanding greater research and insight and holding out the hope of a grand reward.

(To be continued.)

### The Banner Oat.

A NEW PREMIUM.

No grain is more important to the stockman than the oat. He needs it for his horses and other stock, and wishes to grow it as economically and as carefully as possible. Therefore

he wants the best, the most prolific, the hardiest sort he can find.

Every reader of the LIVE STOCK JOURNAL has heard of the now famous *Banner Oat*, first brought into notice by Vick the seedsmen of Rochester, and two or three years ago introduced into Canada by Mr. John Miller, of Markham.

These are the points of merit claimed by the growers of the *Banner Oat*

1. That it is less liable to rust than other varieties.
2. That it is a much better yielder.
3. That it is stronger in the straw, and therefore not so liable to be blown or knocked down.
4. That it is a superior oat for the making of meal.
5. That it ripens earlier than most other varieties.
6. That where other oats fail the *Banner Oat* does well.
7. That it is a hardy variety, and therefore suitable to our northern and north-western districts.
8. And that while it has these merits it is also as good for feeding stock, both in the grain and in the straw, as any other variety.

Here are a few items of interest concerning this oat that Mr. Miller has given us.

1. When he first sowed the *Banner Oat* he planted 1 lb., and his yield from that 1 lb. was 85 lbs.



RED POLLED OX.

Bred by and the Property of Mr. J. J. Colman, M.P., Carrow House, Norwich. Winner of the Champion Prize at Norwich Fat Stock Show, 1889.

2. A neighbor of his this last year had 17 acres in all of oats, of which 5 acres were sown with the *Banner Oat*. From these 5 acres he obtained 476 bushels, or an average of 95 1/4 bushels per acre. He sold these all in one sale at 60 cents a bushel. From the remainder of his 17 acres, which in every respect as to soil and treatment were like the 5 *Banner Oat* acres, he reached only 30 bushels to the acre.

3. In the several competitions open to the whole continent of America, established by *The American Agriculturist* for the best returns from one acre sown with oats, Mr. Miller with the *Banner Oat* stood third, having a yield of 91 bushels. Mr. Miller is confident that had his acre been in one of his ordinary grain fields, and not in an exposed place in a field devoted to root crops, his yield would have been 20 bushels greater (which would have placed him first in the competition) for his acre was so much exposed that a great deal of the grain on it was knocked down and became lodged.

We have made arrangements with Mr. Miller by which we can supply our stockmen and farmers with sufficient seed of this valuable oat with which to make a start, and at little or no cost to themselves.

(1) To any stockman sending us two (2) new subscribers for the LIVE STOCK JOURNAL and \$2.00, we will ask Mr. Miller to send one bushel of these oats.

(2) Anyone sending us three (3) new subscribers and \$3.00, shall receive one and three-quarter bushels.

(3) Anyone sending us four (4) new subscribers and \$4.00 shall receive two and a half bushels.

The above includes the cost of the bag; but it does not include the cost of carriage. This must be defrayed by the receiver.

On examination it will be found that these premium rewards are very liberal.

Three trial orders will count as one regular order. All orders should be written only on our blank forms and these we shall be happy to supply on application. For further particulars as to "Trial Orders," "How to send Money," see the Publishers' Column.

### The Farmers and the Millers.

EDITOR CANADIAN LIVE STOCK AND FARM JOURNAL:

I would like a little space in your columns to call attention of our brother farmers, and especially the directors and members of our Farmers' Institutes, to ask if the farmers are going to allow themselves to be made a "cats paw" of by the millers. This Association of the Millers have kindly volunteered to find

a speaker for our Farmers' Institutes free of charge; and why are they so much interested in the farmers all at once? They don't spend dollars for nothing unless they can get them back for nothing. What is this Combine or Association formed for, whether they say it or not it is like all other Combines, formed to enrich themselves by killing competition at the expense of the producer or consumer, or both. They do not assemble like our farmers at our Institutes to discuss how to cheapen production or increase quality of produce. Not much, if one of them gets an idea that is an improvement on old ways he must have a patent on it to make it dear to other manufacturers, who, if they find it is an advantage, must have it of course to keep up with the time and then take the cost out of the farmer.

We know they have a smart man for the

business, and let me pay this compliment at least, one who knows how to "put his case" (as an old farmer said). This member attends our farmers' meeting and takes up valuable time, and manages to get a resolution passed calling on our government for more duty on flour. Well, no harm in that to our Ontario farmers, but someday we may wake up and find that it is a duty off wheat that millers have obtained. You will notice at their own meetings it is either wheat or flour they want to change, but we don't need to be told that they would rather have the duty off wheat and how is that going to benefit farmers in Ontario? The government dare not put more duty on flour for fear Nova Scotia and New Brunswick would turn them out, they would much more likely if any change were made put the duty on wheat, for don't they know we farmers can always be relied upon to chuck up our hat for our party no matter if said party does wipe their feet with us. Now about the testers, as a matter of fact some such grading has always been done, either by the eye or machine; and there is not so much fault to be found as this is apparently but making the rule cast-iron, apparently we say, because the millers obtain another and greater benefit from the tester. We know they have their standard, both quality and price, and the Association fixes the price and if any member pays more than said standard he can be reported and made to pay the penalty for breaking the rules. In fact by

this method the combine can stifle all competition. An objection raised at a meeting of the farmers and millers, to the test- was that they were too small, and some farmers wanted them larger, as we know, if a piece of straw or any light stem goes into these testers it will make a big difference. But the farmers were politely informed that the government fixed the size, so it must stand. Well, bless us, don't the government fix the duty also, but they want that changed, that interferes with the miller's profit. But the size of the testers favors the millers at the expense of the farmers, but it must stand I say, bother farmers. We know that all combines are formed to enrich themselves at the expense of some one else, and the farmers have to bear more than their share of the burdens imposed by all combines.

R. A.

## The Dairy.

### Ontario Creameries Convention.

In the town of Seaforth, Ont., it is the intention of the Ontario Creameries Association to meet in their fourth annual convention on the 14th and 15th of January next. An excellent corps of lecturers have been secured, including such prominent advocates of the dairy interests amongst our Southern neighbors as Governor Hoard, and the Hon. Hiram Smith, of Wisconsin, and also such of our own as Professor Robertson, Dr. McFarlane, Hon. Chas. Drury, and others. The problems of the dairy industry crying for solution, and the reforms needed in present systems, are not confined to one province or continent, but are universal in their application, so that those who may have the privilege of hearing our friends from across the line who have grappled with these unsolved questions, and been advance guards in reform, may expect to have a rare treat indeed. The energetic efforts that this association is putting forth to advance the dairy interest should receive the hearty support of every one in the least interested, and their support can be best given by becoming a member of the association, and attending its every meeting. Mr. R. J. Graham, of Belleville, Ont., is the secretary, and to him all should apply for information desired in respect to the coming meeting.

### The Production of Milk.

#### THE PHYSIOLOGY OF IT WITH PRACTICAL DEDUCTIONS.

(FIRST PAPER.)

Though the cow has firmly been the friend of man and patiently his servant for many decades past, yet it is surprising how little, even those best acquainted with her, know of the workings of her organs of digestion and secretion while those are engaged in changing food into milk. It is yet but the "shadow of a shade" that has rewarded our best researches, but investigators have been very busy of late so that something definite and reliable is within our reach, unsatisfying as it may be.

Let us start with the food. After due mastication it passes down the gullet into the rumen or first stomach, to be returned to the mouth if coarse and again masticated, and this time it passes on to the other stomachs. The glands lining the stomach pour out their gastric juice, and the food is at the same time thoroughly mixed by the peculiar movement of the stomach lining. Through the pylorus or small opening from the stomach the food now passes into the small intestine, which is some 50 yards long and 1/2 inch in diameter. A couple of feet from the pylorus, the small intestine is joined by a small duct that carries bile from the liver to the small intestine. Nearly the same distance farther on, another duct

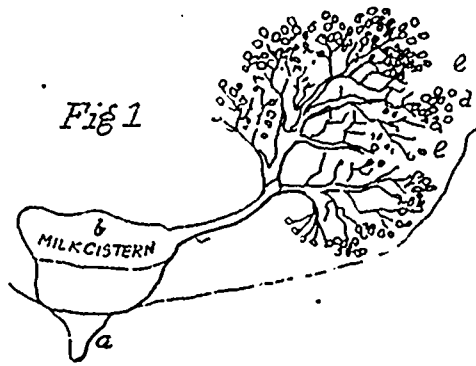


FIG 1.  
Diagram of teat (a), Milk cistern (b), Duct (c), vesicle (d).

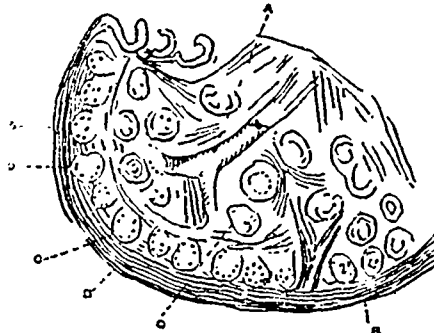


FIG 2.  
Half section of udder magnified 45 times, (A) Duct, (B) Tissue surrounding vesicles.

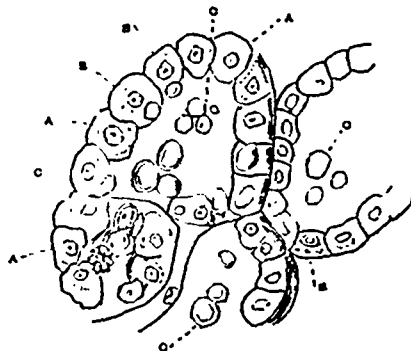


FIG 3.  
Portion of udder magnified 400 times, (A) Epithelium cells, (B) Epithelium cells containing a milk globule, (C) Milk globules set free.

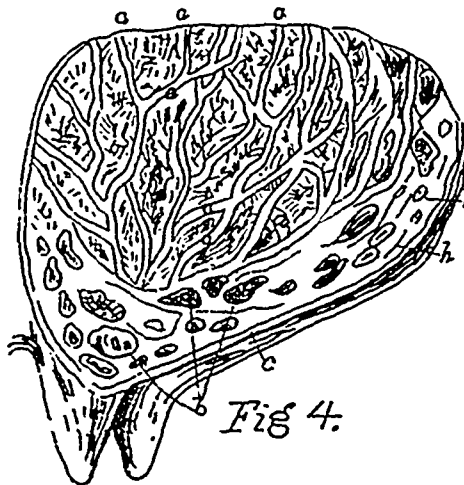


FIG 4.  
Diagrammatic section left hind quarter showing ducts (a), reservoirs (b), muscular envelope (c) fatty tissue (d).

pours into the small intestine the pancreatic juice from the pancreas. Then from the small intestine, the rest of the food that has not been unaffected by these digestive juices passes into the large intestine, which is 30 or 40 feet long and communicates with the exterior of the body. All these digestive juices have their several functions to perform—the nitrogenous substance of the food is made soluble by the gastric juice of the stomach and pancreatic juice of the intestine; the carbohydrates, such as starch and sugar, are dissolved by the saliva of the mouth and the pancreatic juice; while the fats are emulsified by the bile of the liver and the pancreatic juice.

This dissolving up of the several nutrients of the food would be of very little use unless they are carried to the several parts of the body where needed, and this function the blood performs. The absorption of the dissolved nutrients from the food takes place mostly in the small intestine. The innermost wall of the latter is lined with a great many very small projections known as villi. In the centre of these are what are known as the lacteal vessels, and between these latter and the outer wall of the villi there is a wonderful network of very fine thin walled blood vessels (capillaries). The substances that have been dissolved by the digestive fluids easily pass through the outer lining of the villi and through the delicate walls of the capillaries into the blood. From here the blood is carried away by a large vein called the portal vein and taken to the liver, and from there it is conducted by the hepatic vein to another large one, the posterior vena cava, which empties its contents into the right side of the heart. Now the greater part of the fat of the food takes another course, as it passes directly into the lacteal vessels, spoken of before as existing in the villi of the small intestine, and these communicate with larger branches which joins one that runs along just beneath the spine and empties its contents into a large vein about the region of the first rib and this large vein joins another (anterior vena cava) which pours its contents into the right side of the heart. These two fluids, the blood and contents of the lacteal tubes (lymph), both entering the same side of the heart become mixed, and so pass from the latter to the lungs and there it receives its supply of oxygen gas and parts with its carbonic acid gas and vapor. So purified, the blood passes back to the heart and from the latter organ it is driven with force through arteries to every part of the body. We are only particularly interested in what goes to the udder. Leaving the left side of the heart, after being purified by the lungs, it passes into a large artery (the aorta) which runs along underneath the spine and reaching the iliac artery it passes down to the femoral artery, that extends almost parallel with the thigh bone. The femoral gives off a branch the prepubic, which gives off another, the external pubic, and this passes through the inguinal and divides into two branches, the anterior artery and the mammary artery, and it is from these that the udder receives its supply. After passing through the immense network of capillaries in the udder, the blood enters the "milk veins," which run forward to near the breast bone when they turn inwards and join the internal mammary vein which meets with the vein of the arm and this joins the anterior vena cava which empties the blood into the right side of the heart and so it has completed the entire circuit of the body.

The question now arises, how is the milk secreted from the blood as it passes through the udder? and this will need but very little explanation with the aid of our cuts to make it as clear as present data will



permit. As will be seen in Fig. 1, just above each teat there is a milk cistern, and from this branch out tubes which subdivide and ramify through the tissue of the udder. Along these tubes at different places are situated other smaller cisterns or reservoirs and around the base of these are congregated numerous muscular fibres, which by contraction, may intercept the flow of milk to the cistern just above the teat. These small muscles connect with those of the abdomen and it is through these that a cow is able to withhold her milk. These fine branching tubes, which become very small after a number of subdivisions, terminate in small vesicles. The lining of the latter is made up of small cells (epithelial cells) as shown in Fig. 3, and in these the principal constituents of the milk are elaborated.

To our friend the *Jersey Bulletin* we are indebted for the loan of cuts one and four; two and three we have prepared from an article in the "Encyclopedia Britannica" by Dr. Hendrick.

The constituents which it may interest us to trace to their origin are the casein, fat, and milk sugar. The fat in the milk is produced in the epithelial cells through the action of the protoplasm of the cells, and to perform this function it must be well nourished, and this is abundantly provided for by the blood, for every vesicle is surrounded by a dense network of capillaries. The fat of the milk is not according to the best authorities, derived from the fat of the food, in fact, it is asserted that too much fat in the food tends to decrease the activity of the protoplasm in the cells and hence the secretion of fat also. The casein in the milk is also a peculiar production of the protoplasm of these cells, for it has been noticed that when the cells are acting imperfectly, as in the first periods of lactation, the amount of casein in the milk is very small; but when very active, as some time after lactation has gone on, the proportion increases. The milk sugar of the milk is also a product of the action of the protoplasm in the secreting cells, an assertion which is borne out by the fact that this particular form of sugar is found in no other part of the body, though grape sugar is contained in the blood and other fluids of the body. The source of the water in the milk is undoubtedly the water in the blood, and thus the quantity of water in the milk may be greatly influenced by the state of the blood, and the latter in turn by the nature of the food fed. For instance, such foods as brewers' grains will, if fed excessively, lessen the quantity of solids and increase the proportion of water in the milk.

Over all this, however, there is a subtle guiding power that makes or mars the returns from the food. We refer to the nervous system of the animal and that part in particular known as the sympathetic nervous system, the centre of which is in a chain of nervous elements extending along just beneath the backbone. This system greatly contributes to the formation of the vaso motor nerves which are in connection with the muscular walls of the blood vessels, and may increase or decrease the calibre of the latter and so the quantity of blood that flows through them is largely controlled by the sympathetic nervous system. Not only the mammary gland but other organs may be affected through the action of this part of the nervous system. The supply of blood that goes to the mammary glands is thus largely regulated and so this system may influence the milk materially.

In our second paper we hope to draw a few logical and practical deductions from what has been written in this paper.

## Horticultural.

FOR THE CANADIAN LIVE STOCK AND FARM JOURNAL.

### Rose Culture for Beginners.

By the Hon. Mrs. LAMBERT

After years of experience, with their due share of success and failure, I record with confidence the result of this experience in a few plain rules, which, if implicitly followed, will make success sure to the merest amateur.

Every one commences to grow roses with the conviction that the great obstacle in the way of success is the severity of our climate, whereas it is quite possible to raise as fine roses in Canada, even as far north as the Ottawa region, as can be grown in England. In fact, our best rose collections are said to show a greater profusion and a longer season of bloom than even the famous English rose gardens. But it is perfectly useless for anyone to try to cultivate this beautiful flower unless they have a place for them where the first morning sun can shine fully upon them, and continue to do so until at least mid-day, and as much longer as possible. No amount of attention or favorable conditions will be of any use unless this first requisite is to be obtained. The next condition must be a well-drained spot, where water will not stand on the surface during the winter, for although they will endure a temperature of 40° below zero with impunity, and come out smiling and green in the spring, if they are but dry, yet if they are surrounded by ice, not one single one, of even the hardiest, will survive our most temperate winters. The third condition is a deeply worked soil—two feet deep is enough, and not too much—and the ground well enriched with cool manures and fertilizers. Nothing is better than plenty of soot, bone dust, and very old manure from the cow stable. Then, the plants must not be too near together, so that the air and light may circulate freely among them, and plant in the spring.

As to varieties, the most desirable rose in cultivation, the General Jacqueminot, is the most easily grown, and if a collection of one dozen bushes is desired as a beginning, six of them should be of that superb variety, two Magna Charta, two La France, and two of that most beautiful of white moss roses, Blanche Moreau. They should be on their own roots, and in no case should the amateur try to raise a worked or grafted rose, or she is quite sure to be surprised at her wonderful success and the vigorous growth, and after years of disappointment from lack of flowers, she will some day awaken to the fact that she has been cherishing a fine bed of the Manetti stock. Life is too short for mistakes which cost so much time. I have found one of the greatest annoyances in rose-growing to be false labels, and I would emphasize a caution to purchase of no firm who will not give a written guarantee that their plants are true to name. The only one of the four varieties I have named that is at all difficult to procure is the white moss, Blanche Moreau, but it is to be had both in Canada and the States, and it is such a peerless gem, both in its hardiness, vigorous growth, and profusion of exquisite pure white buds, that it will repay the exertion necessary to discover a firm from whom it can be procured.

The winter covering is needed more to protect from the hot suns of early spring than from the cold of winter, therefore, they should not be covered earlier than the 15th of November. The best method is to wrap a little straw about each bush, then bend the tips of the branches to the ground, securing them there with a stone, or any weight that will keep them down, then a few evergreen branches thrown over all will

keep them in safety. La France should have more straw about it than the others, as it is a half tea-rose, but with a slight extra protection even that comes out quite uninjured by our severest winters.

## Young Stockman's Department.

Our Boys, In our Next number in this Department you will see Something of Great Interest to you all. Remember not to overlook it.

### Feeding, Care, and Management of Breeding Sows, while Carrying their Young.

By ARTHUR HUNSBUERGER, Tinturn, Ont.

[FIRST PRIZE ESSAY.]

Sows, while carrying young, should have special care, for upon this depends the quality of the pigs. Select good breeding stock, which are in good condition, and couple them at the proper season. A few breeding sows may run together, but not too many; and, if any of them require less food than others, or fight the rest away when eating, feed these by themselves. During the summer months, let them run in a good pasture field, and provide shelter in the field to protect them from storm and rain. Supply them with buttermilk, kitchen slops, or good clean water. When the weather is cold, put them in a pen comfortably warm, and well ventilated. In the mildest part of the day, turn them out to get exercise. Clean the pen regularly, and supply dry bedding, but not too much, for if they cover themselves and sweat, they will get chilled on coming out to eat. Their drink and food should be warmed in cold weather. Chopped barley or oats make an excellent food. Wheat bran or chops, made in a slop, may be given to them, especially about two weeks before farrowing, to keep their bowels open. A mangel may be given to each of them frequently. A little sulphur and ashes should be given to them once a week, to keep them in healthy order. It is a very bad plan to feed corn entirely, as it is heating and inclines a sow to be feverish, and is sure to have its effects upon the pigs. If anything else can be secured, don't give more than one feed a day, and that at night. Breeding sows should not be kept too fat, as they will not take sufficient exercise to keep healthy. Sows too fat will bring weaker pigs than those kept in thriving order. Change the bedding frequently, for if it becomes foul the sow will get lousy. Two weeks before farrowing, put each sow in a pen by herself, so that she may become fully accustomed to her home. Do not drive her fast or worry her by a dog, especially when heavy with pig, for this might cause her to loose her pigs. Use them kindly, and they will be more easily handled.

### The Feeding, Care, and Management of Lambs, from Birth until Weaning Time.

By ROBERT M. HOOD, Ellesmere P.O., Ont.

[PRIZE ESSAY.]

When the lamb is first dropped it will be very clumsy on its large legs, and will not attempt to suck, perhaps. However, do not be in any haste to help it to rise, for it does not want milk immediately, but it does want the "licking of the ewe," which is sometimes called "nature's warmer." The attendant should not interfere too soon, for he will be apt to anger the ewe so that she may not even recognize her lamb, and sometimes she will stamp upon it in her rage.

A lamb that gets at a teat and sucks for itself will soon learn to take care of itself, and may generally be regarded as safe; whereas, if helped, it will continue to expect aid, and will not try for itself for several days.

Never feed a lamb with a spoon, but from a bottle with a goose quill in the cork, which will seem more like nature. If the lamb is so weak that assistance is required, do not in any case throw the mother down, but make the lamb suck in the natural position of the ewe, because instinct teaches the lamb in search of food to point its nose upwards. If taught to suck from the bag of the prostrate ewe, the lamb, when strong enough, will be very awkward in finding the teat in its natural position.

If the mother has no milk and it is necessary to feed the lamb by hand, the milk should always be taken from a new milch cow. Now, don't give this to the lamb in its full strength, but add one half water, and put in enough molasses to give it the cleansing effect of the mother's first milk, then warm to a natural heat, and when feeding make the lamb in every case suck from the bottle; for many a lamb has been lost by pouring milk down the throat and choking it.

Should a lamb become chilled, the best plan is to wrap it in a woollen or flannel blanket and put it in a moderately warm room, giving it some milk with a trifle of pepper in it as soon as it can suck.

Before being weaned, the lambs should be given in a trough a few crushed oats, and some carrots or turnips chopped up very fine. The trough should be placed in a small pen, into which the lambs can easily get, but not the ewes. This should be fed very lightly at first.

The lambs should be weaned when about three and a half or four months old, and should be placed as far distant from their mothers as possible, so that they cannot hear their respective bleatings. An excellent plan is to turn one or two tame old ewes in with the lambs. These will teach the young lambs to eat from troughs to come when called, to find salt when thrown out to them, and several other things that lambs should know. Young lambs require fresh, tender pasture when first weaned, while their mothers should be put on dry upland pasture, in order to stop the flow of milk.

The lambs should be docked when the mothers are washed, about the latter end of May. It should, however, be carefully done, so that the skin may slip back over the wound. This is done by pulling the skin tight back towards the body, and with a mallet and chisel the tail is cut quickly and cleanly off between the bone joints, leaving it from one and a half to two inches long; then the skin slips back over the wound, and healing soon takes place. An ointment of tar and lard, mixed in the proportions of 4 pounds of lard to 1 quart of tar, should be smeared on the wound, in order to keep away flies, and thus prevent the formation of maggots.

### Thoughts From the Boys for the Boys.

A. H. BAIRD, CHESTERFIELD, ONT., forwards us a capital essay on the feeding, care, and management of lambs, brimful of good sense, written in a neat hand, and the ideas are clearly stated, showing that the writer is well acquainted with his subject. We take from this essay the following extract: "As soon as they are old enough to eat they should be provided with a place where the ewes cannot enter, and there fed on oats and bran regularly. This feed should be increased as they grow older, and continued until weaning time. It pays better to feed your oats than sell them at the present low prices. Pure water and salt should always be within their reach, and if there are any ticks on them they should be removed by applying some tick destroyer." The part in this extract that we desire to draw particular attention to is that referring to the feeding of the oats, instead of selling them. Our young stockman in that sentence shows himself to be acquainted with a fact that is unknown to many farmers, much older though they may be. Oats are an invaluable food for all kinds of stock of all ages, and could be fed more largely with profit on many of our farms.

WILMOT HUBBARD, BURTON, N.B., also sends us an essay on the same subject, that treats of the matter in hand in a clear

manner and practical way. We extract the following from his: "When the ewes and lambs are turned out to grass they should only be allowed to be out part of the day for the first two or three days, for a too sudden change from dry to soft food would be injurious to them. The flock should be housed in stormy weather. A little grain to the lambs in a small yard, where the ewes cannot approach, will keep them moving ahead faster than if they depend on milk and grass exclusively until weaning time." There is a danger, as our essayist states, (which others overlooked), in turning the ewes and lambs out first upon the pasture, and the best method of providing against anything like scouring occurring in the ewes, or lambs is to only allow them to be on the pasture a short while each day. Anything that serves to derange the system of the ewe, such as a quick change from dry hay to pasture, will quickly effect the milk, and through this the lamb. There are many other excellent thoughts in this essay but space forbids us from extracting more from it, much as we would like to.

DAVID DUNN, MANDAMIN, ONT., who is only fifteen years old, sends us an essay of first-rate merit on the feeding, care, and management of breeding sows while carrying their young. He says: "In feeding do not feed in too large quantities, but rather feed often and less at a time. Peas are perhaps better pork-producing food than corn, that is they give a better quality of pork, and a sow is also generally stronger when fed on peas, and strength is important in a breeding sow. A sow is healthier when fed on a variety of foods, fed regularly, and if given peas they should be soaked; salt should be mixed in the slops. A sow is always healthier when she is at liberty to run in a yard or field with a comfortable pen in it. Some people object to their rooting, but this can be easily stopped by putting a small ring in their nose." In mentioning that peas, and other rich foods, give a better quality of pork than corn, our writer states a fact well known to them that have much to do in the feeding of pigs. Corn is a very fattening food, and as a consequence when fed in any quantity the pork produced is excessively fat. The quality of the pork and the proportion of fat to lean, are important features, and they are becoming more important as time goes on. The market of to-day calls for pork well mixed in respect to fat and lean, and this is not to be grown by feeding only swill and other refuse, but by feeding good nourishing foods, such as peas, oats, etc. We hope none of our boys will adopt the idea of the Irishman, who, being possessed of the idea that a pork consisted of alternate layers of fat and lean, tried to produce this by starving his porkers for a spell and then feeding them lavishly for another.

ARTHUR A. BEATTIE, DERWENT, ONT., forwarded us an essay on breeding ewes from time of housing until lambing time, which we, even at this late day, cannot refrain from giving an extract from owing to its good merit. He says: "In the winter time the sheep are too much confined in the house; it would be better if they were allowed to be more in the open air. Breeding ewes should be at liberty to run in and out of the house into a yard which should be dry and clean. It is not good for sheep to be kept in all the time, because when they are confined in a hot house they sweat, and when they are turned out they become chilled and catch cold." Our essayist has touched upon two important points, giving the sheep liberty to go in and out as they please, and keeping their quarters clean and dry under foot. Confined sheep, besides the danger always over them of taking cold, will not yield as good a fleece either in quantity or quality. The effects of confinement will vary with the breeds. If not given the freest liberty the Cheviot will lose its wool in patches and suffer considerably, while some of the other breeds, such as the Leicester, would hardly be affected by being housed a little. Sheep are very apt to be troubled with foot rot, and one of the chief causes that aid in the spreading of this disease is dampness and filth under foot, and these same conditions account for the colds in the heads that sheep are so often attacked with.

We have been surprised to find our young stockmen throwing so much enthusiasm into this work of writing essays. It shows that there are a great many boys on our farms who have a true love for the animals of the farm, and all that they needed to make stronger that love was to receive some encouragement from their elders. Now, boys, as we desire to see every one of you grow up to be intelligent stockmen let us help you as much as we can. Let us hear from you often, either on the subjects set from month to month or on any other coming within the scope of young stockmen. If you find that another is more successful in winning prizes than you, never be discouraged, but write again and you will surely succeed in winning a prize in time.

### Jottings.

**Valuable Prizes.**—Bath and West of England Society have resolved to offer two gold medals at their next show: (1) For a simple method for determining the amount of butter-fat in milk. (2) For a practical method of testing and determining the acidity in milk.

**Ontario Bee Keepers' Association.**—The secretary of the above society, Mr. W. Couse, Streetsville, Ont., kindly informs us that their next meeting will be held at Belleville on the 8th and 9th of January, 1890. All interested in this line of work have extended to them a cordial invitation to attend.

**Important to Importers of French Horses.**—Those intending to import Percherons or French coach-horses will be consulting their own interests if they read the advertisement now appearing in our JOURNAL from Mr. Chas. Chaboud, proprietor of the Hotel de France, 2 Rue de Strasbourg, Paris, France. This gentleman is well acquainted with the districts of these breeds, and is able to materially aid importers in the work by giving reliable information.

**The National Wind Engine.**—This machine is handled in Canada by Mr. J. H. Morrow, of Brighton, Ont., who claims for it many qualities and advantages, among which we note the valuable features of strength, lightness, compactness, wearing

qualities, and reasonableness of price. It is all iron with the exception of the sails, which readily accounts for the claim of strength and durability. Its features are fully set forth in an advertisement appearing in this number.

**A Good Oat Yield.**—Speaking of oat yields, Mr. E. Marchamp, of Lloydtown, Ont., states that they have found the Black Tartarian to yield excellently with them, instancing the fact, that in two years, from one peck that Mr. Marchamp brought from Sussex, Eng., they obtained ninety-seven bushels of cleaned oats, weighing 36 lbs. per bushel. They were given ordinary cultivation and attention. Can you beat this? If so let us hear from you, stating how and with what variety you did it.

**Forage Supplies for Importers.**—Mr. Joseph Clark, of Glasgow, Scotland, desires to call the attention of Canadian and American importers to the fact that he is prepared at all times to meet the wants of all importers in respect to forage supplies, and also that he is willing to assist those just embarking in the business of importing in their selection of stallions. Mr. Clark has the confidence of many of our best importers, and hence we feel sure that he will give every satisfaction to those desiring his assistance in any way. Notice his advertisement.

**A Seedsman's Enterprise.**—J. H. Gregory, the well known seedsman, proposes to distribute free among his customers of this season, a year's subscription to one hundred agricultural publications, to be selected by the fortunate ones from a list to be sent them, which will include all the papers and magazines of this class published in this country. Full details will be found in his catalogue, advertised in our columns. Of course this is an advertising enterprise, but of a character which will permit all to wish well to both the parties concerned.

**To Horse Breeders.**—One of the most difficult questions that breeders have to contend with that of barrenness in the mare ranks foremost. There have been many remedies launched upon the market with varying success, but of all that of Dr. Shroop, put upon the market by H. W. Campbell, of Wisconsin has the most universal favor accorded it. It comes strongly recommended by the many eminent breeders among our neighbors who have given it a trial. Those at present endeavoring to overcome this difficulty in any animals will do well to notice Mr. Campbell's advertisement, and write him in regard to it.

**The Jay Eye See Horse Bit.**—We could direct the attention of any of our readers who desire to obtain a patent in Canada of a horse bit to the advertisement of Mr. H. W. Campbell, of Racine, Wis., which is now running in our JOURNAL. This bit is said to have met with every success in the United States. It is strongly recommended by U.S. cavalry authorities, by Jerome I. Case, and many prominent breeders, and others that have to take the greatest care and give the closest attention to the equipment of their horses in the best way. Do not fail to see Mr. Campbell's advertisement.

**The Knabe Piano.**—The merits of this piano are attested to by the following letter from Dr. Hans Von Bulow: "The Knabe pianos, which I did not know before, have been chosen for my present concert tour in the United States by my impresario, and accepted by me on the recommendation of my friend, Bechstein, who is acquainted with their merits. Had I known these pianos as I do now, I would have chosen them myself, as their sound and touch are more sympathetic to my ears and hands than all others of the country." DR. HANS VON BULOW, New York, April 6, 1889." Their advertisement appears in this issue.

**Refrigerator Creamer.**—The manufacturer of the above Mr. George Pulver, of Brantford, Ont., places an advertisement with us in this issue, to which we desire to call attention. A good creamer is a valuable acquisition to the farm dairy, and judging from the many testimonials from patrons, Mr. Pulver supplies this in his refrigerator. It is said to have the great advantage over other creamers now in the market, in having a larger ice reservoir, which gives a greater cooling capacity, and also allows of larger blocks of ice being used. The bottom of the can is shaped so that the sediment pours off in the skim milk, and the taps are easily cleaned and are warranted to remain tight for twenty years, with good usage. It is made in five sizes suitable for milk from ten to twenty cows.

**Littol's Patent Fluid Dip and Cattle Wash.**—Mr. Robert Wightman, of Owen Sound, Ont., who has handled the above for a number of years past, finds that whenever used it has given every satisfaction. As a sheep dip it has met with every success, as those using it find that not only has it a beneficial effect on the wool, but it also is valuable as a disinfectant, being useful in ridding animals of such troubles as scab, etc., and other contagious diseases. As a wash for cattle, horses, etc., it is superior to carbolic or poisonous dressings, as there is absolutely no danger in respect to poisoning should the animals lick themselves after applied, as it is said to be absolutely non-poisonous. It is claimed for it that it will clean the skin from all vermin, kills warbles and improves the coat, making it rich and glossy. It has been found to be very effective in curing grease cankers, thrushes, in horses, and aids in the healing of all foul wounds, sores, ulcers, scabs, etc. See advertisement in this issue.

**Dominion Shorthorn Herd Book.**—Through the kindness of Mr. Henry Wade, the secretary of the Dominion Shorthorn Breeders' Association, we have been favored with the fourth volume of the above work. It contains the pedigrees of 2,222 bulls and 2,737 cows, making a total of 4,959 registrations. As stated in the preface, the same plan has been followed as in the previous volumes, separating the imported from the American bred animals, printing the pedigrees of imported animals in full and abbreviating the American bred ones, as in the second and third volumes. The editor continues the chronological history of the imported Shorthorns, down to the end of 1874. The style and finish, as well as the thoroughness of the work expended on this publication, make it an honor to the society in whose interests it is issued. To edit such a record requires the greatest accuracy and patience on the part of the compiler, and as far as we may be permitted to pass an opinion, this work certainly reflects these features to an eminent degree.

**A Canadian Shorthorn Breeder Honored.**—At a recent meeting of the American Shorthorn Breeders Association,

the following preamble and resolution were moved and adopted: Whereas it is desirable and important that all live stock organizations in the United States unite their efforts in all matters calculated to improve the various breeds of domestic animals, and advertise the excellence of the stock bred in America, and whereas, a number of Live Stock Associations have recently appointed Committees to confer with similar Committees, to be appointed by this and other organizations, concerning the feasibility of holding annually a National Live Stock show at some central metropolis, therefore be it resolved, that a Committee consisting of the President and two members of this Association to be selected by him be appointed to confer with the committee of the National Live Stock organization, in reference to the feasibility of holding the proposed show. It is pleasing to us to inform our readers, through a note from the secretary of the Association, Mr. J. H. Pickrell, that the President has chosen as one of his associates on this important committee, our friend and interesting contributor, Mr. Richard Gibson, Belvoir Stock Farm, Delaware, Ont. This choice will receive the hearty endorsement of all Canadian Shorthorn breeders, for we know of no one better equipped for such an honorary and important position than Mr. Gibson, who is thoroughly informed on all Shorthorn matters, either present or historical.

**Preparing for Winter.**—We have called to our attention again the specialties for winter trade in their line as manufactured so largely by the J. B. Armstrong Manufacturing Company, Limited, of Guelph, Canada, for their Canadian trade, and for foreign countries using winter goods. The steel cutter and bob sleigh gears made by this firm are winning their way to popularity among the driving public. Prejudices against them, on account of novelty in appearance, are being overcome, this being only a question of time with any line of goods that have genuine advantages to back them. These improved gears have been thoroughly tested now, and all the objections ever offered against them, overcome by their practical usage. The Armstrong Company continue making improvements in these, as in other lines, and will offer only goods that will take care of themselves, and bring further trade when running. We would ask our readers' attention to present advertisements appearing in our columns, and to their monthly changes, calling attention to different specialties, as they will study their own interests watching closely the improvements and new lines offered by this firm. There are thousands of the cutter and bob sleigh gear, running now in Canada. The repairs called for these are reported by The Armstrong Co. as simply nil. No complaint from five hundred gears running. This speaks volumes for what they will do under most severe tests. The Armstrong Company are pleased to mail descriptive circulars describing to inquirers. The carriage makers are supplied the goods in the white, and finish for use. Correspondence solicited from sections where these are not represented, and sample jobs wanted running in every town ship in Canada.

**Agricultural and Arts Association.**—The annual meeting of this Association was held on Dec. 17th, in Toronto, the President, Mr. J. C. Rykert, M.P., in the chair. The following members of the Council were present: Hon. Chas. Drury, Crown Hill; D. McPherson, Lancaster; J. C. Snell, Edmonton; N. Awrey, M.P.P., Binbrook; Wm. Dawson, Vittoria; Jas. Rowland, M.P., Dunblane; A. Rawlings, Forest; P. R. Palmer, Belleville; R. Vance, Ida; Ira Morgan, Metcalfe; Joshua Legge, Gananogue; and Mr. Wade, the Secretary. Among the resolutions carried were the following:

That the council of the Agricultural and Arts Association, of Ontario, having visited and inspected the handsome new Veterinary College, erected by Dr. Smith, desires to record its pleasure and satisfaction at the wonderful progress made by this institution, which, under the supervision of Dr. Smith has attained a continental reputation as a school of the highest standing. It is a matter of special gratification to the council of the Association, to know that an institution which was inaugurated under its auspices, has been attended with such signal success.

It was also moved by Mr. Morgan, seconded by the Hon. Chas. Drury, and carried:

That this council having heard with deep regret of the death of the late Lionel E. Shipley, who was a member of the board for over twenty years and an ex-president, and took during that time an active interest in the affairs of the association, do now take this opportunity to express our sympathy with his bereaved wife and family.

The members of the council expressed themselves as being in favor of Chicago as a site for the coming World's Fair, and this was embodied in their minutes. It was also decided by the council to drop the educational scheme, owing to the lack of encouragement from those it benefited. The question of awarding some of the grant given the association for the purpose of holding a Fat Stock show, was also decided upon favorably.

**Publishers' Column.**

**Our Holiday Number.**—Our Holiday Number, we feel quite sure you will admit, is a good one, but it is only an earnest of what we intend to do this whole year through.

**Read the Advertisements.**—We venture to say that never before were so many interesting advertisements gathered together in any one issue of any Canadian agricultural paper. We thank our friends for their patronage, and trust their enterprise in advertising may secure them many sales.

**Our Space is Enlarged.**—The severe crowding our columns have suffered from advertising and other matter has forced us to add eight more pages to our space. We don't mind it, however, if it pleases our patrons.

**Our New Subscribers.**—With this number of THE JOURNAL our list of readers is extended to thousands who, until now, have been strangers, both to it and to us. We bid you all welcome, new subscribers, and trust you will co-operate with us

**Advertisements.**

To Advertisers.—Advertisements of an appropriate nature will be inserted in the JOURNAL at the following rates: For a single insertion, 18c. per line, nonpareil (12 lines make one inch); for three months, 50c. per line each insertion; for six months, 1.10c. per line each insertion, for one year, 1.00c. per line each insertion. Cards in Breeders' Directory, not exceeding five lines, \$1.50 per line per annum. Copy of advertisements should reach us not later than the 25th of each month (earlier, if possible). If later, it may be in time for insertion, but often too late for proper classification. Transient advertisements payable in advance. No advertisement inserted for less than 75c. Contract broken by in-olveny or otherwise will revert to the casual rate of 18c. per line each insertion. Advertisers desiring to obtain extra copies of the JOURNAL may do so at the following rates: Per dozen, \$1.00; per 100, \$7.50 (in lots of not less than 25). A reasonable number of copies will be sent at these rates to any address supplied by an advertiser, with the advertiser's own advertisement marked, and a notice on the wrapper calling attention to it. In this way the advertiser will be saved the trouble and expense of addressing and mailing.

**HORSES FOR SALE.**

**Champion Clydesdales.**

Woodside Farm,  
The Home of the Champion Clydesdales of the Province.  
"JAMES ARTHUR,"

at the head, sire, McGregor, sire of dam, Prince of Wales (673), Taking 15 first prizes and 5 seconds at the principal shows this fall, beating all prize winners of the Province at the Montreal Exhibition.

All for Sale at Low Prices.  
Correspondence and inspection solicited.  
ROBERT NESS, Woodside Farm, HOWICK P.O. Que. Jam.

**English Shire Stallions**

**CHEAP**  
WE have a few very nice colts left rising two, three, and four year old. We want to sell and as we have facilities for buying in England that cannot be surpassed, we are able to offer stallions and fillies at exceptionally low figures, in part, buy it before Spring.  
We have first and second prize winners at Buffalo, Toronto, and Hamilton in our stable.

ORMSBY & CHAPMAN,  
Springfield-on-the-Credit, Ont.  
STATIONS—Streetsville on the C.P.R. Jats.  
Port Credit on the G.T.R.

**GRAND'S REPOSITORY,**



121 Adelaide Street, Toronto.

We have much pleasure in announcing to our many patrons that our first

**Large Special Auction Sale**

for 1890 will take place  
**TUESDAY, WEDNESDAY, AND THURSDAY,**  
JANUARY 14th, 15th, and 16th.

When we shall offer upwards of 200 Young Heavy Draught and General Purpose Mares, Geldings, and Stallions. Also several Roadsters, Drivers, and Carriage Horses. This will be one of the most important Sales of the Season.

Entries should be made at once to appear in Catalogue, which will be published in a few days.

Manitoba, Montreal and American Buyers please note the dates. Sale will commence each day prompt at 11.

W. D. GRAND.

Regular Auction Sales of Horses, Sleighs, Carriages, etc., EVERY TUESDAY and FRIDAY throughout the year at 11 o'clock. Jam

Always mention the Journal Live Stock and Farm Journal when corresponding with advertisers.

**"Clear Grit" AND "John A"**

Two "Clear Grit" Stallions, coming five and four years old for sale. "Clear Grit" took four first prizes and two seconds at the Industrial and Provincial Exhibitions. "John A." took two seconds at same exhibitions.

I have also for sale best Dederick Perpetual Hay Press for Steam or Horse Power, and Three-Ton Hay Scale. All bargains. Address:

JOHN A. MACKENZIE,  
Presque Isle P.O., Co. Grey, Ont.

**FOR SALE**

Clydesdale Stallions Fit For Service.

and Young Stallions of Superior Quality and Breeding.  
Mares and Fillies of different ages.  
Morgan colt to the celebrated Sire, Little Jock Elliot (3768). I have also for sale or exchange for an animal of equal merit, The Noted Durham Bull

**"KOSSUTH"**

One of the best bulls in Canada.  
A few of his get also offered. Nothing inferior offered. Buyers don't fail to see my stock.  
THOS GOOD, Shamrock Avenue Stock Farm,  
Richmond P. O. Ont.  
Eight miles from Stittville Station, C. P. R.

**CLYDESDALE STALLION**

I offer for sale the Imported Clydesdale Stallion  
121  
RISING SUN (No. 62),

Sired by Prince Edward of Wales (1255)  
Dam by Young Lord Haddo (1368).

Price reasonable. Address: ROBT. BLAIR,  
Almonte, Ont.

**TO EXCHANGE.**

Thoroughbred Stallion "Jack Frost"  
Thoroughbred Holstein-Friesian Bull 18 mos. old

I am prepared to exchange either of the above animals for any other of equal value, either heifers, steers, cows, sheep or pigs. They are no use for either of them any longer. Both guaranteed all right every way.

N.B.—Write at once. This adv't will not appear again.  
GEORGE BUNBURY, Suffolk Lodge, Oakville, Ont.

**FOR SALE.**

Standard Bred Trotting Stallion  
WESTERN SPRAGUE 2289

Sired by Governor Sprague, 444 Record 2:20 1/2 Dam by Allie West, 745-Record 2:25  
He is a sure getter and his stock are very promising. Will sell him cheap, and no reasonable offer will be refused.

THOS. J. KELLY,  
West McGillivray P.O., Ont.

**GEORGE G. STEWART,**

Howick, Province Quebec, Canada,  
Importer of High Class Pedigreed Stud Horses and Fillies. A large assortment of all ages always on hand, and for sale on most reasonable terms. For more particulars see regular advertisement in Live Stock Journal.  
Correspondence solicited and visitors welcomed. Jam.



11/2/16

HORSES FOR SALE.



T. W. PALMER'S  
LOG CABIN STOCK FARM!

150 PERCHERONS.  
100 JERSEYS.

To be Disposed of this Season.  
For catalogues and particulars address  
4 MERRILL BLOCK, Detroit, Mich.

12/3/4  
AUCTION SALE OF  
GLYDESDALE HORSES AND MARES.

At MITCHELL, on WEDNESDAY, FEB. 12, 1890,  
the splendid stock of high class Pedigreed Im-  
ported Clydesdale Horses and Mares,  
embracing ten Stallions and three  
Mares.  
WILL BE SOLD BY AUCTION.  
For Catalogue, Address—  
THOS. COLQUHOUN, Proprietor,  
jae MITCHELL, ONT.

CLEVELAND BAY STALLIONS  
BRED FROM PRIZE-WINNING STOCK.

For further particulars apply to  
W. C. BROWN, Meadowvale.  
Farm is three-quarters of a mile from Meadowvale Station,  
on C.P.R. jad.

FOR SALE.

PURE BRED  
IMPORTED GLYDESDALE STALLION,

BEN LEE OF CULLEN (5537), Vol. X., foaled 26th June,  
1886; Color, bay; white stripe on face; hind feet white above  
pasterns. Sire, Leopold (3766), Vol. VII., Dam, Bet (1638). Vol  
V., Sire of Dam, Young Lofly (991), Vol. I. Also

ONE IMPORTED GLYDESDALE MARE,

GEORDIE (No. 111), foaled June 1887; Color, dark brown,  
two white legs and white face; Sire, Sir Archibald Buchanan,  
(540), Vol. III., Dam, Jess of Smithston (7953), Vol. XI.; Sire  
of dam, Cassie (116), Vol. I.

Horses can be seen at stable, EAST STREET, GALT.  
Full particulars by post. Address,

JAS. McCOMBIE, Galt, P.G., Ont.  
novts

FOR SALE!

IMPORTED GLYDESDALE STALLION

9 years, 1600 lbs, sound, kind,  
Sure Foot Gaiter and Prize Winner.  
CHEAP FOR CASH

Or would exchange for Coach or Carriage Stallion or Standard  
bred trotting mares.

E. PHILPS BALL,  
LEE FARM, ROCK ISLAND, QUE.

BROOKSIDE FARM,



New Glasgow, Pictou Co., N.S.  
Standard-Bred Trotters,  
AMERICAN  
CATTLE-CLUB JERSEYS.

POULTRY FOR SALE.

East Union Poultry Yards  
DO YOU WANT

Black Minorca,  
White or Barred Plymouth Rocks,  
Silver, Golden or Black Wyandottes,  
White Buff or Partridge Cochins,  
Brown Leghorns, Red Pyle, or Black Red Game,  
Golden Pouter, Golden Spangled Hamburgs,  
Langshans, Bronze Turkeys or  
PURE BRED SUFFOLK SWINE?  
If you do, be sure and let me know if you desire to secure the  
best of bargains and the best of fowl.

WM. COLLINS,  
jam. Union, Ont.

BRONZE TURKEYS.

For Sale at \$5.00 per pair, taken this month.  
Sales last year amounted to \$150. All customers heard  
from, except one, and all well pleased.  
Have sent birds safely to Nova Scotia.

Address W. J. BELL,  
jam. Banda, Ont.



AGAIN TO THE FRONT.

Pekin Ducks,  
Plymouth Rocks,  
Light Brahmas,  
Black and Brown Leghorns.  
They have won highest honors  
at the leading shows this fall.  
Stock for Sale  
W. B. COCKBURN,  
novd. Aberfoyle, Ont.

AWAY AHEAD AGAIN.



PRIZE-WINNING BIRDS FOR SALE.  
Light and Dark Brahmas, Plymouth  
Rocks, Langshans, W. F. Black Spanish,  
Houan, Colored Dorkins, Bronze Tur-  
keys, Red and Pekin Ducks, Toulouse  
Geese. Upwards of 116 prizes at the  
recent Poultry Shows.

EGGS FOR HATCHING IN SEASON  
From the highest-scoring birds in the  
Dominion. Send three cents for  
circulars. Birds and prices right.

Wm. Hodson, Box 12, Brooklin, Ont.

MAKE YOUR POULTRY PAY.

AND SUBSCRIBE FOR THE  
"POULTRY MONTHLY."  
The Best Poultry Paper Published.  
Send One Dollar and get it from now to end of 1890.  
CHAS. BONNICK,  
ocmc. Toronto, Ont.

W. C. G. PETER,

Importer and Breeder of Light Brahmas, Silver-Laced Wyandottes, Barred Plymouth Rocks, Rose-Comb Brown Leghorns, Rose-Comb White Leghorns, Single-Comb White Leghorns, Langshans, Red and Silver Duckwing Game Bantams  
Eggs, \$3.00 per Setting; 2 Settings for \$5.00.  
Stock for sale at all times. Send for Circular.

ST. GEORGE POULTRY YARDS,  
ANGUS, ONT.

in making THE LIVE STOCK JOURNAL a great power for good in this grand country of ours.

Thanks for Kind Words.—During the past month, which, by the way, has been one of tremendous pressure in our office, we have received hundreds of letters giving us encouragement and approval. Please accept our thanks right here, friends; we have had no opportunity of thanking you elsewhere.

Thank for Good Suggestions, too.—We have received, also, many good suggestions, and some wholesome criticism likewise. This is all very acceptable, especially if offered in kindness, as all of it has been. We intend to profit by it.

What our Aim is.—Our aim and intention is to make THE LIVE STOCK JOURNAL so useful to every good farmer in the country that he shall not be able to afford to do without it. Friends, if you see any way how we can improve it, please let us know. Your suggestions will always be welcome.

Our New Departments.—Our "Young Stockman's Department" has been a great success. We are now adding "The Farmers' Daughters' Column." This will do for the young women and girls of the farm what "The Young Stockman's Department" is doing for the boys and young men. Nothing but what is useful and practical, and directly bearing upon the work of the farm, will be admitted into THE JOURNAL. In this we think our paper has a character distinctively its own.

Plans, Devices, and Practical Ideas.—This, too, is a new department, and one that we shall pay great attention to. But, dear readers, it is more yours than ours, and we trust you will help to make it the most interesting department in the whole JOURNAL.

Our Helpers.—The friends of THE JOURNAL are legion, and to name them all would more than fill the pages of THE JOURNAL itself; but when men go down into their pockets and pay, not only for their own subscription, but for many others as well, in order that THE JOURNAL may be read by those who might not otherwise see it,—friends, for example, like William Kough, of Owen Sound, and W. C. Edwards, of Rockland, it is no more than decent to make some public mention of their kind action. But to mention even all such names as these would take more space than we have to spare.

Our Young Workers.—In the November issue we started a plan by which the young readers of THE JOURNAL might benefit themselves, and at the same time help us. We allude to our Premium Watch Plan, which so far has been a great success. Among others, watches have been sent to

- Master W. D. Moore, Georgetown.
- R. Crawford, Canboro.
- Alexander Wright, Dutton.
- Alfred Vance, New Hamburg.
- J. D. Bryson, Ormston, Que.
- Bertie Jackson, Weston.
- T. T. Brown, Tilsonburg.
- Walter Cross, Beeton.
- William McCallum, Forest.
- Robert Shaw, Guelph.
- Dougald Campbell, Corwin.
- Dougald Campbell, Campbellville.
- William Lyons, Salmonville.
- John Cumming, Lancaster.
- Thomas Michie, Scotch Block.
- Roderick White, Huntingdon.
- John A. Robertson, Adelaide.
- Aubrey V. Parker, Berwick, N.S.
- John Brent, Warwick West.
- Robert Gibson, Stockton, Man.

In addition to the watch winners, some fifty or sixty others have their clubs partially completed and have sent in many names and much money, but yet are not quite fully entitled to claim the prize. But, boys, all you need is a little more energy, for "energy," as you know, "is the key to success." The watches are good, and are well worth having.

For Full Particulars.—For full particulars regarding our Watch Premiums, write to us. The plan is an easy one; the reward, a good one.

Trial Subscriptions.—In working to obtain new subscribers, don't forget our plan of trial subscriptions. We will send THE LIVE STOCK JOURNAL for six months, on trial, for 25 cents. Trial subscriptions must be written out on blank order forms, which we will supply.

How Trial Orders Count.—In all our Premium Plans, 3 Trial subscriptions count as 1 Regular subscription, and we wish this would be generally understood and remembered.

Sample Copies, etc.—We shall be glad to furnish sample copies, Blank Order Forms, and all other necessities for the securing of subscriptions, to anyone desiring them.

Commissions.—We will pay liberal cash commissions to anyone who will send us new subscribers; but we say frankly that these cash commissions are not and cannot be so liberal as those which we pay otherwise, for these latter are the most liberal ever offered in Canada, and are the fruit of much care on our part. Still, our cash commissions are quite liberal, and we shall be glad to quote them to anyone desiring to work for us on that basis.

How to send your money.—Send it by Registered Letter. This is a perfectly safe and satisfactory way. If the amount is large send by Post Office Money Order. Never send money in an unregistered letter. There is no means of tracing it if it is lost, and losses are sure to occur now and again.

Keep your eye on this column.—Keep your eye on this column. In it every month you will find something to interest you, and also to profit you, as we hope. Now, send in your order as fast as you can.

The picture of the Ontario Agricultural College.—We have received from the late managers of the JOURNAL a number of fine lithograph pictures of the Ontario Agricultural College. It is a beautifully colored plate, 12x7 inches, giving a good view of the College and the surrounding building and grounds, and quite suitable for framing. To every present subscriber sending us money, either for arrears or for renewals, we will send a copy of this picture until the stock is exhausted. How to address your letters.—Address all correspondence to THE J. E. BRYANT PUBLISHING COMPANY (Limited), 58 Bay Street, Toronto. Put all matter intended for the editor, all items of news, stock notes, and matter intended for publication, on separate sheets. Please bear this in mind; it saves a good deal of trouble.



NOTICE. TO BREEDERS OF DRAUGHT STOCK

NOTICE is hereby given that the receiving of Entries for Registration in Vol. 2 of the Dominion Draught Horse Stud Book will close on March 1st, 1897, after which the standard of registration will be raised to

Three Crosses for Stallions and Mares

Dams with two Crosses will then require to be also registered to admit progeny, but mares entered alone must have three Crosses.

NO ENTRIES ON THE PRESENT STANDARD

will be received after that date, and parties interested would do well to govern them selves accordingly.

Blank entry forms and all information will be promptly furnished on application to the undersigned.

By order of the Council

JAMES MITCHELL,

Secretary, Goderich, Ont.

Stock Notes.

Est Matter partaking of the nature of an Advertisement will not be inserted in these columns.

We regret that this, as well as some of our other Departments has had to suffer for our want of space this month. Those whose notes do not appear in these columns will be given due attention in our next issue.—[Ed.]

Horses.

MESSRS. H. CRAWFORD & SONS, CANBORO, ONT., send us some notes regarding their record at last fall's exhibition which, like many others, this month, we regret have been crowded out. We would advise our readers to see Mr. Crawford's advertisement.

In this issue our readers will find an advertisement of Mr. Thos. Goods, Shamrock Avenue Stock Farm, Richmond P.O., which should be noticed. Mr. Good has sent us some valuable stock notes which we regret our space will not permit of our publishing in this issue.

MESSRS. MASON & MCGREGOR, OF BRUCEFIELD, ONT., long known as importers of high class horses, have decided to dispose of their stud, and in a large advertisement now running they give full particulars in respect to the breeding and qualities of this grand collection. Their advertisement is well worthy of close perusal.

ORMSBY & CHAPMAN, SPRINGFIELD-ON-THE-CREDIT, write: "Our Shires are doing very well, and have gone into winter quarters in good shape. Amongst our two year olds we have a half-brother to Great Gun, winner of 1st at a three-year-old at Chicago last month. Great Gun by the way was purchased by Messrs. Galbraith from our partner in England. We have had a great number of enquiries, and trade promises to be brisk for both Clydesdale and Shire stallions, especially for good ones; we think we have a few of the latter kind, and in proof thereof, may say that this fall we took thirty-three out of a possible thirty-six prizes, at Toronto, Buffalo, Hamilton, etc."

In another column will be seen an advertisement offering for sale the standard-bred stallion Western Sprague 2289. This stallion is standard-bred under Rule 6 (by a standard horse out of a standard mare). He is described in pedigree as being a dark bay horse, black mane and tail, one white hind foot; 16 1/2 hands high, weight 2,250 lbs.; foaled 1881. He was bred by B. J. Treacy, Ashland Park, Lexington, Kentucky. Imported by Eynon & Hey, Ailsa Craig, Middlesex, Ont., and now owned by Mr. Thos. Kelly. He was sired by Governor Sprague 2.20 1/2, dam Mamie West, by Allie West, with a five year-old record of 2.25. Governor Sprague was by Road Island 367 2.23 1/2, by Whitehall; Allie West 745 was by the great Almont 33, a get of Alexander's Abdallah 15. Thirty of the sons of Almont have sired 57 performers with records from 2.13 1/2 to 2.30. We had the pleasure of inspecting one of the gets of Western Sprague, owned by Graham Bros., of Ailsa Craig. He was the makings of a good horse, and if he may be accepted as a criterion of what Western Sprague will do as a sire, the qualities of the latter in this respect cannot be too highly magnified.

ROBERT NESS, WOODSIDE FARM, HOWICK, P.O. QUE., writes: "As this is the eleventh annual importation of Clydesdales at Woodside Farm, an account of what is on hand may be of interest to some of your many readers. I have just now on hand nine stallions and six mares, including James Arthur, sire the great McGregor, sire of dam the world renowned Prince of Wales (673), considered the best strains of blood in Scotland, having taken several first prizes in the old country and since imported, was the champion of last season and still holds his ground this season, beating all comers at the Montreal Exhibition. The others have been fortunate as prize winners, notably the fine two-year-old Dandy Dimont, by Crown Royal, he by Darnley, dam by Prince Charlie, being bred similar to The McGregor, this is a colt of great promise and has not been beaten in the show ring. Another, a yearling, Gallant Model sire Topgallant, has also stood first at all shows this season. Three of the fillies are in foal, Dolly by Good Hope, and served by the champion Glasgow horse Sir Everard; Alex by McFarlane, served by the McPherson; Lady Newark, by Lord Newark, sired by James Arthur. The stock is all in good thriving condition and not too much pampered. There is considerable enquiry for horses and expect a fair year's trade. I have already sold a fine Shire colt two-years-old to Mr. John Carr, Trout River; and a two-year-old filly to Mr. John Mills, Omsstown; a Shetland to John McIntosh, Esq., M.P.P., Compton, a pair of matched ponies to the Rev. Mr. Pepin, of Tres St Sacrement and have still three matched pairs on hand. Our stock of registered Ayrshires are also doing well, having some of the best specimens of that breed, taking the herd prize last season at the district show." Mr. Ness places an advertisement with us in this number which should receive the attention of all.

SWINE FOR SALE

BERKSHIRE PIGS

A few young ones in farrow to imported prize boars, September and October pigs bred straight from imported stock.

PAIRS NOT AKIN

Special rates by express

We ship to order and guarantee Satisfaction

JOHN SNELL'S SONS,

Edmonton, Ont.

REGISTERED BERKSHIRES.

FOR SALE, one choice young sow, 12 months old. Also young stock of either sex, all from prize winning stock. NONE BUT CHOICE BONES SHIPPED. Registered pedigree. Write for prices.

S. COXWORTH, Claremont.

BERKSHIRES.

SOWS.—I have thirty very fine registered Berkshire sows, eight months old for sale. Served by Columbus 1150, also some extra good Boars and sows eight weeks old for sale at reasonable prices. They are a good lot, and offering an excellent chance to secure good animals. Write at once for particulars.

E. E. MARTIN, Nithside Farm, Canning P.O.

MAPLE LANE STOCK FARM

One mile north of C. P. R. Station, Claremont.

Pure Cotswold Large English Borkshires

Stock won 1888 and 1889 Seventy Five First, Twenty Four Second, and Several Special Prizes, besides

THREE DIPLOMAS AND THREE SILVER MEDALS

Young stock for sale, and shipped to order.

All stock registered and guaranteed as represented Registered Berkshires a Specialty.

C. T. GARBUTT, Claremont, Ont.

YORKSHIRE PIGS

I will have a large number of Yorkshire Pigs of the large improved breed for sale in spring. In order to secure these the Park Patters favorite

I would advise all intending purchasers to order early.

All pigs suitable for registration. Prices to suit the times.

ANDREW GILMORE,

Oak Dale Farm, Huntingdon, Que.

IMPROVED LARGE YORKSHIRE PIGS

The subscribers have six sows and two boars imported from 5/10 of the most noted breeders in England. The above are fast displacing the old breeds.

TO AVOID DISAPPOINTMENT

we advise our friends to place their orders early for spring pigs.

W.M. DAVIES & SON,

Kinecroft Farm, Markham, Ont.

CHESTER WHITE PIGS

We are now Booking Orders for spring pigs.

This is the time to order and secure first choice.

H. & J. GURNETT,

Ancaster, Ont.

YOUNG SOWS

I have still on hand A CHOICE LOT OF YOUNG SOWS from 8 to 12 months old. Also a choice lot of young pigs just fit to wean; out of Huron Daisy (756).

Eighteen First Prizes.

Some of the above were sired by imported Real Briton (488) and the rest by Huron Chief (915). Address

R. DELBRIDGE, Winchester, Ont.

AT FARMERS PRICES. Pure Suffolk and Berkshire Pigs, all free from imported stock. Also 3 young Bulls, 10 months old. All from pure Bates. Clydo Fillos and Stallions, various ages for sale. Stock Bull (Imp) for sale or exchange. F. J. RAMSEY, Dunville P.O. nymc

CHESTER WHITES originated in Chester County, Pa. If you send to me I can give you stock that will please you and benefit you. My stock make hogs weighing 800 lbs. at maturity. Walter 4553 is a noted hog valued at \$600.00. Write me. I guarantee my stock and satisfaction. O. E. MORRISON, Londonderry, Pa., U.S.A

SHEEP FOR SALE

COTSWOLD SHEEP AND SHORTHORN CATTLE.

We have for sale a number of Cotswold ewes and ram lambs, the latter from imported ewes and our Imported Sweepstakes ram, 1st. Also, we hold for sale two choice

DURHAM BULL CALVES

of extra breeding and quality.

H. CRAWFORD & SONS, - CANBORO, ONT.

Imported and Canadian-bred Shropshire Sheep For sale, registered pedigree. Agent for Dana's Sheep and Cattle Labels. JNO. DUNN, Brucefield, Ont. mrmc.

AYRSHIRES

Of excellent type, rich breeding and rare milking qualities comprise my lot, as attested to by the great number of prizes that they have won during the last few years. Superior young stock

FOR sale at all times, including a number of fine young heifers and prime bulls that would be fit for service in the spring. They will be held for

SALE

at reasonable prices. Be sure and communicate with me if you are desiring to purchase first-class dairy stock

JAMES DRUMMOND, Petite Cote, Montreal, Que.

JERSEYS FOR SALE

JERSEY COW

Handsome, solid fawn, unregistered, pure bred 2 years old, fresh, Dec. 17th from rich butter stock.

A MODEL FAMILY COW

Also yearling heifers and heifer calves for sale.

J. C. SNELL,

Edmonton, Ont.

3 HEAD OF JERSEYS FOR SALE.

BULL "BUSTER," 1877. Solid fawn. Dropped 18th Dec., '85. A handsome, serviceable Bull. Price \$75.00. HEIFER CALF, Sire "BUSTAN" dam, "ROSE OF ERIN," '9322. solid fawn, Black face and switch. Dropped 19th July, '89. Promising Heifer. Name to suit purchaser. Price \$60.00. COW, NEAR PURE 6 years old. Served by "BUSTER," due in April. Solid fawn. Good Butter Cow. Her former calves' heifers, \$60.00.

THE LOT FOR \$100.00.—

J. D. STEWART,

Mitchell, 26th Dec., 1889. jam.

JERSEYS FOR SALE.

Several fine Jersey Heifers; choicest strains. Prices low. Epmc. Write G. M. BEEMAN, NAPANEE, ONT

**SHORTHORNS FOR SALE.**

**YOUNG SHORTHORN BULLS**

At Fairham Farm, Arkell, Ont., there are three Extra Fine Young Shorthorn Bulls for sale, from 11 to 14 months old. Two reds and a roan. They are from the famous Cruikshank Bull **SUNSET.**

A FEW COWS and HEIFERS, REGISTERED in D.H.B., are also for sale. Prices to suit the times  
**HENRY ARKELL,** - - - Arkell, Ont. jam.

**CHOICE SHORTHORN BULLS**

I have five choice Shorthorn Bulls for sale, all sired by imported Sittyston and Kinellar bulls. The dams are also sired by imported bulls.

**WILL BE SOLD ON EASY TERMS**

Write me or call and see them.  
**JOSEPH WATSON, - GREENBANK, ONT.** jam

**A RARE CHANCE**

My Stock Bull Statira Duke (5058) pure Bates; Color dark red, is now for sale. He is six years old and a sure stock getter. I would exchange for any quality good. I have also for sale 3 Bull Calves of his get, 10 months old.

Clyde Fillies, 1 and 2 years old.

Clyde Stallions 1 year old in May last and Pure Suffolk and Berkshire Pigs of all ages also for sale. Address

**F. J. RAMSEY,** - - - Dunnville, Ont. jam.

**PRELIMINARY NOTICE.**

As it is my intention to give up farming I shall sell without reserve my entire

**Herd of Pure Bred Shorthorns**

on or about the 5th of March next. Further particulars will be given in the next number of JOURNAL.

**ISAAC FISHER, Goderich, Ont.** jam.

**THE BRIARS STOCK FARM. OVER 60 HEAD OF SHORTHORNS**

registered in D. H. B. from the very highest strains. Also several Highly Bred Roadsters and well bred pigs.

**SUTTON WEST, ONT.** jam

**SHORTHORN BULLS.**

From first class Scotch Bred Stock. Prices Moderate Send for circular to Meter Station, 1/2 Mile.

**H. & W. D. SMITH,** - - - HAY P. O. jam.

**SHORTHORN BULLS FOR SALE**

I have several Shorthorn Bulls for sale from 15 to 22 months old. All registered in Dom. S. H. B. Address

**WM. TENNANT, Falkland P. O.** jam.

**Shorthorn Bulls.**

1 Bull, aged 5 years; 1 Bull, aged 19 months; 1 Bull, aged 14 months; 1 Bull, aged 12 months. All of Dom. S. H. B. registry, except the bull aged 19 months, which is eligible to N. S. H. B.

**A. C. BELL,** - - - Trout Brook Farm, New Glasgow, N.S.

**YOUNG SHORTHORN BULLS**

Five young Shorthorn Bulls and lot of Berkshire Pigs for sale. Will be sold cheap. Send for catalogue and price list.  
**EDWARD JEFFS, Bond Head.** decd.

**HOLSTEINS FOR SALE**

**SPECIAL OFFER**

Only good for Thirty Days

To make room for young and other stock we have coming in, we will for the next thirty days offer a very choice lot of

**HOLSTEIN-FRIESIAN BULLS**

chiefly of the Maple and Borington families. They are superior animals individually, and are richly bred for both milk and butchery. Offer the bulls at reasonable prices and we will allow a

**Discount of 12 per cent.**

on all cash sales. This is an excellent chance to head your herd with a first-class dairy bull.

**H. & W. F. BOLLERT,** - - - Cassel, Ont. jam.

**Holstein Cattle and Improved Yorkshire Pigs**

I have for sale Holstein cow (registered) rising four years, dropped second calf 12th Nov.; a Holstein heifer (registered) 18 months old, and a Hampshire heifer dropped 12th of November. Above are all bred from stock of Messrs. Smith Bros., of Churchillville. I intend to keep a family cow I shall sell either cow and calf or the heifer and calf. Also, I hold for sale 5 sows and 3 boars of Improved Yorkshire pigs littered 31st Aug. last. Bred from stock of Messrs. Ormsby & Chapman, of Springfield. Can ship on C. T. R. or by Canadian Express.  
**AARON WENGER, Ayton, Ont.** jam.

**HOLSTEIN BULLS AND COWS FOR SALE**

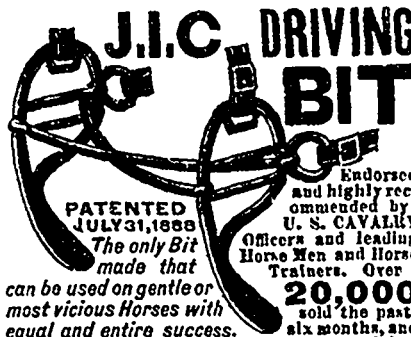
Two choice bulls aged 11 months, also cows of different ages. These animals are all of

**FIRST CLASS STOCK**

and registered in the Holstein Friesian Herd Book of America. Prices right. Apply to

**E. PANNABECKER, Fairview Farm, Hespeler, Ont.** jam

**MISCELLANEOUS.**



**J.I.C. DRIVING BIT**  
PATENTED JULY 31, 1888  
The Only Bit made that can be used on gentle or most vicious Horses with equal and entire success.  
Endorsed and highly recommended by U. S. CAVALRY Officers and leading Horse Men and Horse Trainers. Over 20,000 sold the past six months, and not one complaint.  
For Family Driving, Speeding, or Riding and Controlling the Stallion or Breaking the Colt  
**THE ABBE KING,** - - - Canada N. V. DUMMER, of the 9th Cavalry U.S.A., says: "I have used this bit for several years throughout the Army and Coast, and have found it to be the best and most reliable I have ever known."  
D. H. C. BURY, Lake Crystal, Minn., says: "No horseman can help but thank the inventor. It is perfection."  
GEO. H. HADLER, Topoka, Kan., says: "In my twelve years handling of colts I never saw the equal."  
N. A. GRAB, Danville, Va., says: "I have used the J. I. C. with more satisfaction than any bit I ever tried. Every horseman should use them."  
J. B. FRANZ, Mansfield, Ohio, says: "I have tried all kinds of bits of the most improved make, but never found one equal to the J. I. C. for general use. The more I use it the better I like it."  
Send for circular with full particulars. For sale by the Trade.  
Sample sent prepaid, in X O plate for \$1.00; in Nickel \$2.00; in Extra Fine Nickel \$3.00; Stallion Bits 50c. extra.  
**RACINE MALLEABLE & WROUGHT IRON CO.,** - - - RACINE, WIS.

To those importing stock from Scotland. For Forage and other supplies address  
**JAMES CLARK,** - - - Grain and Straw Merchant (Forage Contractor), 100 Parliamentary Road, GLASGOW, Scotland,  
One Hundred yards from Buchanan and Queen Street Stations. Forage of best quality supplied to shippers of stock or shortest notice. References by permission to MR. JOSEPH VANCE, New Hamburg, Ont., and other Canadian Importers.  
**TELEGRAPH, "FODDER," GLASGOW.** jam.

**Cattle.**

**JOHN HOPE, BOW PARK FARM, BRANTFORD, ONT.,** writes: "We have sold the following bulls during the past month: Cupbearer, to M. A. Housholder, Columbus, Kansas; Baron Waterloo, to the Ontario Agricultural College, Guelph; and Earl Fame 8, to Jas. Lindsay, Fergus, Ont."

**JOS. WATSON, GREENBANK, ONT.,** writes: "Stock doing well. Have made five sales during the past month, four heifers and one bull, young bulls doing extra well. Will try and send you some new subscribers, I think every farmer should take it." Mr. Watson places an advertisement with us this issue. Look it up.

The herd of Galloways owned by Mr. Wm. Keough, Owen Sound, has recently been enriched by several additions of Galloway calves of a superior type. They have a close resemblance to one another, and all bear the stamp of Closeburn, their magnificent sire. Thus far they number five heifers and one bull, with several cows yet to hear from. The advertisement of this herd appears in this issue.

The Messrs. H. & W. BOLLERT, OF CASSELL, write: "Our Holsteins are doing very fine this fall, and greatly relish the ensilage we provided for them. Some have already dropped their calves, among them the two-year-old Barrington heifer, Trumpette and. She has already given over 49 lbs. of milk per day under ordinary care. The demand continues very good enquiries are coming from all parts of the Dominion."

H. J. DAVIS, MAPLEWOOD FARM, WOODSTOCK, ONT., writes: "The Shorthorn heifer Violet's Eclipse, sired by the imp. Dublin bull Eclipse, to Mr. G. Green, East Zora; one Berkshire sow to Mr. R. Heath, Mt. Brydges; one sow to R. J. Peacock, Alliston, Ont.; one boar to A. R. Kidd, Warsaw, county of Peterboro; boar and sow to Mr. James Cherry Jr., Nobleton, Ont.; two sows to Thos. Mackay, Richmond, Ont.; one boar to Mr. Atkinson, Guelph; one boar to Mr. J. Tobin, Malmason, P.Q."

A. & G. RICE, CURRIES CROSSING, ONT., write: "The celebrated Pieterte family of Holsteins which are famous over two continents at least, for their enormous milk records (the highest ever made), have been sold by their former owner Dallas B. Whipple, Esq., of Cuba, to Messrs. J. B. Dutcher & Son, Pawling, N.Y. The sale consisted of six head, and a large price must have been paid for them to tempt their former owner to part with them. Their new owners are breeders of large experience and say they must have the best. No doubt these animals will be further heard from at their old tract of record smashing. We have stock representing fifty per cent. of the blood of this family, having the only Pieterte and Jewel blood in Canada." See card in Directory.

**JOHN COUSINS & SONS, BUENA VISTA FARM, HARRISTON, ONT.,** write: "Have had a very successful year in stock. Cattle came in in good condition, and are doing well. We were very successful at Listowel and Clifford shows. Sold bull Chieftan to Mr. Samuel Stockton, Minto. Our stock bull, Duke of Holker, we purchased of Mr. Joseph Thomson, of Salem; a good all around bull and sure stock getter. Our Oxford Down sheep have done extra well, and are looking well. We scored all the prizes at Listowel and Clifford shows. Have made the following sales: Ram, two shears, John Bosomworth, Elora; ram lamb, E. G. Harter Worth, Manchester, Indiana; ten ram lambs, Halliday Bros., Kirksville, Missouri; one ram lamb, W. Kellington, Elma.

**ARTHUR JOHNSTON, GREENWOOD FARM, GREENWOOD P.O., ONT.,** reports cattle as coming into winter quarters in excellent condition. Feed of nearly all kinds is exceedingly plentiful. Store and fattening cattle have sold higher at farmers' sales than ever before. Business enquiries are coming in better than they did last year. Well-bred cattle wherever offered at farmers' sales are eagerly bought at prices that pay farmers well. Superior grade cows selling as high as \$85 at one or two sales. The Greenwood herd now numbers sixty-seven head, all in fine thriving condition. A new catalogue will be ready for delivery on the 20th of January, 1890; send for one. Mr. Johnston makes a change in his regular advertisement which should be noticed by our readers.

**JOSEPH YUELL, OF MEADOWSIDE, CARLETON PLACE, ONT.,** writes that his sales of Ayrshire Cattle have been as follows: Bull calf, Royal George, sold to L. B. G. Bennett, Athol P.O., or Glangary; bull calf, Peter the Great, sold to Ralph Lett, Eagenville, Ont.; bull calf, British Boy, and yearling heifer, Jessie, sold to E. Graham, Elmside P.O., Quebec; Queen of Meadowside, sold to R. Read, Ottawa, Hunningburgh P.O., Ont.; Shropshire shearing ram, sold to James Wilson, Pakenham P.O., Ont.; Shropshire ram lamb, to W. Duncan, Almonte P.O., Ont.; one Shropshire ram lamb, and one Earl Lamb, to A. Scott, White Lake, Ont.; two Berkshire sows to O. E. Royat, Orleans P.O., Ont.; one Berkshire Boar, to John Sommerville, Middeveville, Ont.

**HON. M. H. COCHRANE, HILLHURST FARM, HILLHURST, QUE.,** informs us that on the 10th inst. there were shipped from Hillhurst to Prof. Shaw, for the Ontario Agricultural College farm, at Guelph, two valuable heifers, the two-year-old Hereford heifer Geranium 32948, by Cassio 11353, which won and prize at London, Toronto, and Hamilton this year, (the first prize heifer being her companion Eastern Empress, also by Cassio), and the beautiful two-year-old Aberdeen-Angus Blooming Rose 8057, by Paris 3rd 1163, a grand-daughter of the fine cow Beatrice, 2nd of Kinstair, imported from the herd of Mr. John Anderson, Kinstair, in 1882. Both heifers are heavy with calf and should make good breeders. Lady Ida Forbes 6979, the champion Aberdeen-Angus female of the last two seasons, calved a nice bull calf on the 2nd Dec., by Lord Advocate 6954.

F. C. SIBBOLD, "THE BRIARS," SUTTON WEST, who is breeding, with success, Shorthorns of types which he advertises in this issue, writes us in a strain that indicates satisfaction in his favorites: "Shorthorns still keep the lead for beefing, and a general purpose cow for those who cannot afford to breed for a special purpose, although the Herefords and the black Dobbies pushed them almost into a corner for a short time, so much for

fashion, but the old favorites are quietly asserting their superiority without any flourish of trumpets, or being marched through the Highland Glens to the tune of Lochaber no more. All classes of cattle require to be well taken care of if we wish to keep them from degenerating. The Shorthorns mature earlier, fatten quicker, and are better tempered than any of the others. Three most important points."

WILLIAM KOUGH, TRAVENTINE FARM, OWEN SOUND, ONT., writes: "The calves already dropped in W. Kough's herd of pure bred pedigree Galloway cattle are six. Heifer calf from Miss Steith [521], to bull Closeburn 6½ and is a right good calf, and four heifer calves from each of the following females: Countess of Galloway 2nd, (10089) imported; Mary [524]; Duchess Louise 2nd, 2830; Agnes of Eyremont, 777; also a bull calf from Mary 5th, 3600. The last five calves are all after the imported bull Cla:erhouse (4250) 4614, the champion bull at Provincial, London, and the Industrial, Toronto, 1889. He is stamping himself as a wonderfully good sire, all his calves being perfect models, regular blacks. The cattle are in winter quarters and doing well. The herd now numbers thirty-six with pedigrees."

MR. W. E. COCHRANE, OF THE LITTLE BOW CATTLE CO. Mosquito Creek, Alberta, writes. I have about one hundred head of Galloways here. I find they are very hardy, and grow to a greater size here in Alberta, than they do in Scotland. Those I brought from Scotland some years ago, have wonderfully improved. I never feed anything to them in winter, except when the snow is deep to the cows with very young calves. I find them the most prolific of any breed, and their cross with range cows is good. Horned cattle, when mercury goes down to 40 below zero, suffer from the cold through their horns. The Galloways have an advantage in this respect, and their hides are equal to the Buffalo. My herd ranges within about two miles of this ranche. They rustle out all day, and when night comes, they return and bed down en masse around the stables. Having never been fed, they are thoroughly independent, and hold flesh well all winter.

W. C. EDWARDS & CO., OF ROCKLAND, ONT., writes us: "Our stock has all gone into winter quarters in good shape, and are all doing well. The season's crop of calves in Shorthorns and Ayrshires are arriving and doing well. Our sales this autumn were as follows: Pair of Berkshire pigs to Alonzo Wright ex-M.P.; two sows and a boar to S. Farno, Ottawa; Shroshire ram lamb and two ewe lambs to S. Jamieson, Buckingham, or e ram and two ewe lambs to W. E. Clark, Vernon, Ont.; two ewe lambs to Duncan McIntyre, Clarence; one ram lamb to J. W. Edwards; and one ram lamb to C. and G. J. Wilson, Cumberland; one Shorthorn bull calf to Jas. McLaren & Co., Buckingham; one yearling Shorthorn bull to Jas. Manogue, Cumberland; one Ayrshire heifer to A. Kennedy, Osgoode; Ayrshire bull and heifer calf to Messrs. Wm. Endie & Sons, Russell, Ont.; Ayrshire bull calf to Peter Crerar, Osgoode; Ayrshire heifer calf to F. Iveson, Osgoode; Ayrshire bull calf to H. Cummings, Russell; Ayrshire bull calf to Mr. McGregor, Russell; and Ayrshire bull calf to John Conn, of Cumberland." This firm places a special advertisement with us in this number which should be noted.

MESSRS. SMITH BROS., OF CREDIT VALLEY STOCK FARM, CHURCHVILLE P.O., ONT., write: "Last week we shipped four head of Holstein cattle to Reginal Bishop, Round Hill, Nova Scotia. They were Kramer 2nd and Lord Ripon and Kramer. Kramer 2nd took first prize at Provincial Exhibition last year, and has become a very stylish heifer, and from her calf has shown herself a good breeder. With her went Valley Princess, one of the most promising two-year-olds in our herd. She is from our Duke of Edgely and Finette, she from Miss Parma, whose dam Grietje gave 83 lbs. of milk per day, and Mettle, whose dam gave 82 lbs. of milk per day, and 17 lbs., 4 ozs. of butter in 7 days; Jennie Stapel, another two-year-old of excellent quality and promise, is from our Duke of Edgely and Jacoba Stapel, whose dam has a milk record of 83 lbs. per day, and a butter record of 17 lbs., 12 ozs. in a week. With these went Mink's Mercedes King, a young bull of remarkable breeding and promise; he is from Belle of Orchardside 2nd, who took 1st prize and the diploma as best female of any age at London Provincial, and 1st prize at the Toronto Industrial. She, as a three-year-old, has been averaging over four gallons of milk per day since October and, when she dropped her calf. She is from Belle of Orchardside, whose dam, Siepke, gave during the past year 13,021 lbs. of milk. The sire of the young bull is Mink's Mercedes Baron, whose dam has a milk record of 96 lbs. per day, 16,628½ in a year, and a butter record of 20 lbs., 9 ozs. in 7 days, his sire is Mercedes Prince, out of Mercedes, who produced 99 lbs., 6½ ozs. of butter in 30 days, and won the Breeders' Gazette Challenge Shield open to cows of all breeds. Baron's six half-sisters averaged 16 lbs., 5 ozs. of butter in 7 days as two-year-olds, and one, Imkjes Mercedes, produced 25 lbs., 15½ ozs. in 7 days. We feel sure that Mr. Bishop, with such a foundation herd will show the people of the Maritime Provinces that the Holsteins are worthy the study and consideration of all breeders who wish a breed that is profitable for milk, butter, cheese, and beef. We would direct the attention of all desiring dairy animals of good breeding and quality to the special advertisement of Messrs. Smith Bros. now running in our columns.

Sheep.

HENRY ARKELL, FARNHAM FARM, ARKELL, ONT., writes: "Since last issue I have sold to James Ross, Youvil, Ont., one ram lamb Oxford Down, and to Aaron Bardwell, Corfu, New York, U.S., three Oxford Down ram lambs. Nine out of ten of my sales, I can truly say are due to my advertising in CANADIAN LIVE STOCK AND FARM JOURNAL."

JOHN SNELL'S SONS, EDMONTON, ONT., report sales of Berkshire pigs, in the last month upon orders from Nova Scotia, British Columbia, Manitoba, Texas, Oregon, Missouri, Kentucky Illinois, Philadelphia, Michigan, and Wisconsin, and still the orders come. Cotswold sheep have been shipped to many of the States, and several of the Provinces. See their advertisement in another column.

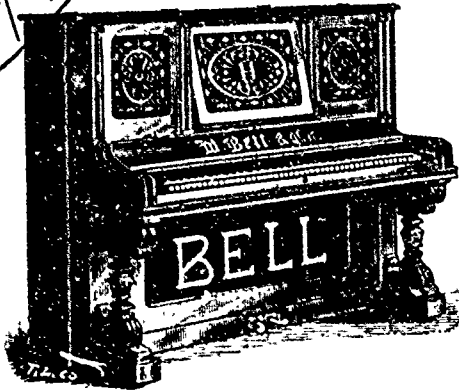
JOHN DRYDEN, MAPLE SHADE FARM, BROOKLIN, ONT., writes: "I have sold during the past season one hundred and seventy Shropshire sheep, including one hundred imported from

MISCELLANEOUS ADVERTISEMENTS.

ESTABLISHED 1804.

BELL PIANOS

50,000 IN USE.



BELL ORGANS

SUPERIOR TONE, LIGHT TOUCH, ELEGANT IN APPEARANCE, DURABLE. THE STANDARD INSTRUMENTS OF THE WORLD.

Our Pianos are used by "Toronto Conservatory of Music," and "Toronto College of Music."

SEND FOR CATALOGUES TO

W. BELL & CO., - GUELPH, ONT.

Branch Warerooms at Toronto, Hamilton and St. Thomas.

WELLS, RICHARDSON & Co's

IMPROVED

Butter Color.

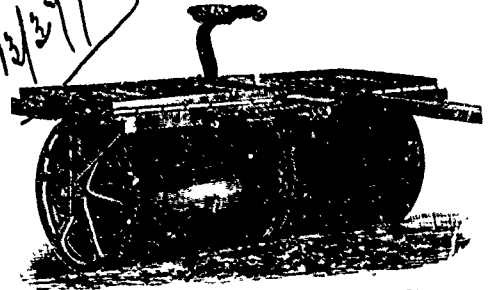
EXCELS IN STRENGTH PURITY BRIGHTNESS

Always gives a light natural color, never turns rancid. Will not color the Buttermilk. Used by thousands of the best Creameries and Dairies. Do not allow your dealer to convince you that some other kind is just as good. Tell him the BEST is what you want, and you must have Wells, Richardson & Co's Improved Butter Color. Three sizes, 25c. 50c. \$1.00. For sale everywhere WELLS, RICHARDSON & CO., Montreal, Que.

Apme.

THE GOWDY MANUF'G CO

MANUFACTURERS OF



LAND ROLLERS

With two large Wooden Rollers, having Iron ends, each roller 4 feet wide

Horse and Hand Power Straw Cutters

of the most improved patterns

ROOT PULPERS AND SLICERS

of various kinds and sizes.

Agricultural Furnaces, Horse Powers, Fanning Mills, Mowers, Turnip Sowers, Plows of all kinds, etc., etc.

GUELPH - - - ONT.

Send for Catalogue.

NOTICE TO IMPORTERS!

CHARLES CHABOUDEZ,

113/17, 17, Rue de France, et de Suisse, 1 Rue de Strasbourg, Paris, France,

Agents for the National Line. Information of all the horse districts given at the office. Charges strictly moderate. Correspondence solicited.

CHARLES CHABOUDEZ, Proprietor.

decme

FARMS FOR SALE

1. About two hundred acres in the township of Fenelon, in good order, having good farm buildings upon it, and well fenced and well drained. Timber on it sufficient for firewood for all time to come, also a never failing creek running through it. 2. About 50 acres in the township of Fenelon and under good cultivation. Well supplied with water. A good chance for a man wanting a small farm. 3. About 1000 acres in the best part of Muskoka. Excellent land, 800 acres cleared and under cultivation; 200 under best timber. Capital stock farm. Will be sold in lots if necessary.

APPLY TO H. R., Live Stock Journal Office, Toronto.

TORONTO BUSINESS COLLEGE

The Leading Commercial, Shorthand and Telegraph School in Canada.

Send for stamp for large and handsome Prospectus.

Address J. M. CROWLEY, Manager, Cor. YONGE AND SHUTTER STS., TORONTO, CAN.

The Public Want

Their seed fresh and true.

Would they not be most likely to obtain such by buying directly from the grower? I can buy seed at half what it costs me to raise it, but could not sleep sound should I warrant seed of this class. For the same reason I make special effort to procure seed stock directly from their originators. You will find in my new seed catalogue for 1890 (sent free) the usual extensive collection (with the prices of some kinds lower than last season) and the really new vegetables of good promise. You should be able to get from me; their introducer, good seed of Cory Corn, Miller Melon, Hubbard Squash, All Seasons and Deep Head Cabbages and many other valuable vegetables, which I have introduced. JAMES J. H. GREGORY, Marblehead, Mass.



100 copies for 2 cent stamp Home & Fortin, Carib. C.

Obtain two new subscribers to the Journal and secure a paper for a year free.

Obtain six new subscribers at twenty-five cents, and we will send your own copy free.

To sell lambs or sheep, or any other species of live stock at the highest obtainable prices should be the aim of every farmer. You cannot secure the highest prices unless you breed the finest qualities. You cannot breed the finest qualities unless you know how. To know how you must keep abreast with the times. To keep abreast with the times you must read THE CANADIAN LIVE STOCK AND FARM JOURNAL.



MISCELLANEOUS ADVERTISEMENTS

**ONTARIO CREAMERIES CONVENTION I**

The fourth Annual Convention of the Ontario Creameries Association will be held at

**SEAFORTH, ONT.**

**Tuesday and Wednesday, Jan. 14 and 15, 1890**

The Association are making an extra effort to make this the best and most practical convention ever held in Canada for those interested in the Cow and her products, especially the mode of manufacturing the choicest Creamery Butter.

**PROMINENT AND LEADING SPEAKERS**

on the Butter Industry from the United States and our own country have been secured to address the Convention, among them are

**GOVERNOR HOARD**

Proprietor of Hoard's Dairyman and Governor of the State of Illinois, and

**PROFESSOR ROBERTSON,**

of the Ontario Agricultural College. Hon. Hiram Smith, of Sheboygan Falls, Wis., and Dr. McFarlane, Ottawa, and Hon. Chas. Drury are expected. Our two Instructors will also be present and give a practical illustration of how to make choice butter by churning the cream and preparing the butter for market before the audience.

**THE GRAND TRUNK RAILWAY and C. P. R.** will issue return tickets at a **Fare and One Third**, by securing certificates before starting from the Secretary of this Association.

Full information regarding the Convention can be obtained from

**R. J. GRAHAM, Sec. - BELLEVILLE, Ont.**  
decd

**BOYS FOR FARM HELP!**

The Managers of **DR. BARNARDO'S HOMES** desire to obtain good situations with farmers throughout the country for the boys they are sending out from time to time from their London Homes. There are at present nearly 3,000 children in these Homes receiving an industrial training and education, to fit them for positions of usefulness in life, and those who are sent to Canada, will be selected with the utmost care, with a view to their moral and physical suitability for Canadian farm life. Farmers requiring such help are invited to apply to

**MR. ALFRED B. OWEN,**

Agent Dr. Barnardo's Homes,

Myme.

204 Farley Avenue, Toronto.

**KNABE PIANO FORTES**

UNEQUALLED IN **Tone, Touch, Workmanship and Durability**

**WILLIAM KNABE & CO.,**  
BALTIMORE, 22 and 24 East Baltimore Street.  
NEW YORK, 148 Fifth Ave. WASHINGTON, 817 Market Space  
decd

**CANADIAN PACIFIC RAILWAY.**

**TOURIST ONE WAY**

**EXCURSIONS**

**FOR 1890**

**TO British Columbia Washington Territory Oregon and California**

**ON FRIDAY**

January	-	-	17th, 31st
February	-	-	14th, 28th
March	-	-	14th, 28th

For berths and all information apply to any Agent of the Company, or write

**W. R. CALLAWAY,**  
District Passenger Agent  
24 YORK ST., TORONTO

**The National Wind Engine.**

All Iron Except the Sails.

**LIGHTEST and most compact Engine made.** Not affected by ice, sleet or snow. Has stood the storm of six winters. The only Engine that will not puff itself out of gear in high winds. No other wind Engine will keep the wheels more perfectly to the wind than the National, whose vanes is on the wheel. Every farmer who has seen the National says it is the best. Don't buy till you get our prices. Cheapest Engine made. 7 ft. will pump 30 to 40 barrels water a day. Ask your dealer for it and **TAKE NO OTHER.** We carry a full line of Pumps, Perforators, etc.

**STEEL PULLEY & MACHINE WORKS, Sole Makers**  
INDIANAPOLIS, IND.

**J. H. MORROW,**

General Representative for Canada, Brighton, Ont  
decd

England. Many of those sold have been put in the show-ring winning prizes in Eastern and Western Ontario, New York, Michigan, Minnesota, Pennsylvania, and Dakota. My surplus stock is now exhausted and the constant enquiries being received at present cannot be supplied at Maple Shade. A few lambs only have been reserved for the trade of 1890. My Shorthorns are in fine shape for the winter and will bear the closest inspection. The young bulls are better than ever, and are developing with great rapidity. They will be large, thick, and fleshy.

**A. TELFER & SONS, OF SPRINGFIELD FARM, OF PARIS, ONT.,** write: We report the following sales for the months of Sept. and Oct. Mr. J. D. McEwen, Mohawk, 1 Shearling ram and one ram lamb; R. L. P. Ch. Brantford, one shear ram; Adam Smith, Paris, one ram lamb; Thomas Cox, Paris, 1 ram lamb and pair of shearling ewes; B. O. Howell, Ayr, 1 pair shearling ewes; Alexander Telfer, St. Pauls, ram lamb. Our flock of Southdowns, after winning 76 prizes, comprising 42 firsts, 26 seconds, and 8 thirds, at the recent fall fairs, are going into winter quarters all in good shape. Sales have been good and inquiries many, and also we are very well satisfied with your paper and its advertising columns.

**MESSES. H. CRAWFORD & SONS, CANBORO, ONT.,** write: "We were fairly successful at the exhibitions this last fall in exhibiting at Buffalo and Detroit International Fairs. At Buffalo we took five prizes on Cotswold sheep, including ram and get and flock prize, competing against seven exhibitors, and seven prizes at Detroit, five firsts and two seconds. We also exhibited at Dunnville, Cayuga, Smithville, Wellandport, Beamsville, and Caistor exhibitions, being township and county shows. In all the above exhibitions we held our own with Cotswold sheep, took several prizes on our Berkshires. In Durham cattle we led them all, capturing herd prizes wherever we made an exhibit; we were awarded herd prize at Dunnville, Caistor, Wellandport, and Smithville exhibitions." Messrs. Crawford & Sons place an advertisement with us offering a few Cotswold ewes and ram lambs, and also Shorthorn bull calves. See it

**JAS. S. SMITH, OF MAPLE LODGE STOCK FARM, OF MAPLE LODGE,** writes: The following is a list of our recent sales of Leicester sheep and Berkshire pigs: To J. Wells, Ohio, W.S., one ram; to Dan Harvey, West McGillivray, Ont., one ram lamb; to Neil McDonald, Blyth, one ram lamb; to John Hord, Parkhill, one ram lamb; Jas. Windsor, McGillivray, one ram lamb; Wm. Ellwood, Maple Lodge, one ram lamb; Jeremiah Smith, Conroy; one ram lamb; J. W. Murphy, Cass City, Mich., U. S., four ewe lambs; John Forbes, Brussels, Ont., one shearling ram; Jesse Snowdon, Moray, one boar pig; C. H. Wilson, Greenway, one young boar; Peter Hord, Parkhill, one young sow. We have a pen of young sows left for sale. We purchased from D. Harvey, the 3-shear Leicester ram, which took the 1st prize at Toronto, 1887, 1st at London, 1888, and 1st at London and Toronto, 1889. He is a grand sheep, and all our ewes are with lamb to him.

**JOHN JACKSON & SONS, OF ABINGDON P.O.,** write: The Woodside flock of Southdown sheep made their usual rounds of the shows of 1889 with more than usual success, securing 116 prizes, 68 of them being first. The following sales have been made at good prices: One ram and two ewes to J. M. Peck, Hornellsville, N.Y. one ram lamb to A. Hammer, Rose Hill, Ill.; one ram to H. J. Haight, Dover Plains, N.Y.; one ram to W. H. Bly, Harmony, N.Y.; one ram lamb and three imported ewes to Wm. V. Hamilton, Caledonia, N.Y.; one imported ram to F. A. Scott, Huntsville, Mo.; one ram lamb to D. Dale, Glendale, Ont.; one ram lamb to Geo. Glen, Carlow, Ont.; one ram to G. E. Cresswell, Egmondville, Ont.; one ram lamb to W. A. Wood, East Smithfield, Pa.; two imported ewes and three ewe lambs to W. A. McCoy, Mercer, Pa.; one ram lamb to Wm. Turnbull, Chesterville, Ont.; one ram to Wm. Colquhoun, Hamilton, Ont.; two ram lambs, three imported ewes, and five ewe lambs to C. C. Noble, Theresa, N.Y.; one ram lamb and two imported ewe lambs to John N. Campbell, Ridgetown, Ont.; one ram lamb to A. R. Kidd, Warsaw, Ont.; one ram lamb to J. Bithel, Port Dalhousie; one ram to A. Adkins, Newport, Ohio; one ram to A. Frank & Son, "The Grange," Ont. one ram to H. Savage, North Shefford, Que. The demand for good Southdowns has been unusually strong.

**SWINE.**

**MESSES. DAVIES & SON, OF MARKHAM, ONT.,** write: We are more than pleased at the way our Yorkshires have sold; they have gone as far east as P.E.I. and we have disappointed parties in British Columbia and Wisconsin, and what is more, all are well pleased with their purchases. The Yorkshire pigs and Guernsey cattle are coming to the front.

**GEO. THOMPSON, OF SUNNYSIDE FARM, BRIGHT, ONT.,** writes: Having purchased a pair of improved large Yorkshire white pigs, I wish you and the public to know how they have done with me since; when I got them home, the pair weighed 68 lbs. and in seven weeks afterwards, they weighed 224 lbs.; they appear to grow away from the Berkshire.

**GREEN BROS., GLEN STOCK FARM, INCERSOLL, ONT.** Messrs. Green Bros. & Brethour of Innerkip and Burford, report the following sales of Improved Large White Yorkshires. Boar and two sows to F. Clifford, of Ohio, U.S.; boar and sow to Ontario Agricultural College, Guelph; boar and sow to N. H. Purkhill, Curries Crossing; boar and sow to Alex. Kennedy, Ayr; boar to Joshua Gregory, Rothsay. The above pigs were all imported in dam and were bred by Mr. F. Walker Jones, England.

**R. RIVERS & SON, SPRING-HILL FARM, WALKERTON, ONT.,** report a good demand for Berkshire pigs and Southdown sheep, having made a number of sales while exhibiting at the Walkerton and Paisley fairs, at which they carried off the major part of the prizes, and two diplomas on Southdowns. Owing to their last season's crop of calves from Victory being chiefly heifers, only had two bulls to dispose of, viz. Marmion Champion, which went to Robt. Thompson, Chesley; and Earl of Spring-hill, to Joseph Morgan, Purple Grove; and the two-year-old heifer Autumn Blossom, which came out victorious over an imported animal at the Northern, to Mr. Carr of Carlsruhe, all at very fair prices. Their seed grain business is increasing owing to

USE ONLY

**JOHNSON'S**

PUREST COLORS

TRADE MARK

**PAINTS**

9/26/8

their endeavor to send out nothing but a good article. See advertisement in another column

R. & J. GURNETT, ANCASTER, ONT., who place an advertisement with this issue, write: We have just received our last importation, consisting of a boar from the herd of McDonald Bros., Marshall, Mich. he is a very fine pig, being lengthy and having extra width and depth in the hams. Also a pair from the herd of J. H. Eaton, Bucyrus, Ohio. The sow is very short in the legs, and very broad, and of good length, while the boar is also of good length, and very deep in the body. These we think, will make a great improvement in our herd

C. T. GARBUTT, MAILE LANE FARM, CLAREMONT, ONT., writes: "Our silver medal herds of Berkshires and Cotswolds were never in better condition than at present. My choice sow Cornflower gave birth to one of the finest litters of young, a few days ago that it has ever been my good fortune to breed, a gentleman seeing them a few hours after their birth thought them a week old. Our sales this season have been numerous and profitable, and among our customers we number such important breeders as, Nelson Wagg, Goodwood; Samuel Snowden, Bowmanville; John Adams, Scugog; John Russell, Brougham; and D. Rundle, Snyva. From our correspondence with farmers all over the province, there is a rapidly growing desire on their part to materially increase the standard of their stock. This is a glad tidings to both grower and breeder, for nothing pays so well. Mr. Garbutt sends us a special advertisement this issue which should not be overlooked

S. COXWORTH, of Whitevale reports sales as follows: I write you to say that my herd of Berkshires are doing well, and the demand for good ones is still increasing. The following are a few of the sales made in 1889: To Chas. Hodgson, Whitevale, Ont., one sow; H. K. Russell, Battineau, U.S., two sows, Noah Hurkholder, Cherrywood, Ont., one sow; F. W. Scott, Highgate, Ont., one sow; Geo. M. Bidwell, Colborne, Ont., one boar and two sows; Noah Reesor, Cedar Grove, Ont., one boar; Hampton Cowan, Tilbury Centre, Ont., one boar; Jonathan Groh, He-peter, Ont., one sow; Wm. Mc Kee, Woodville, Ont., one boar and one sow; B. H. Forink, Napier, Ont., one boar and one sow; Daniel Poucher, Plainfield, Ont., one boar; W. G. Gerow, Whitevale, Ont., one sow; Peter B. Reesor, Cedar Grove, Ont., one boar and one sow; A. P. Hissie, Whitevale, Ont., sow; Brown Bros., Springville, Ont., aged boar and one young boar; Charles Lavolette, Sutton West, Ont., one boar; Chas. T. Garbutt, Claremont, Ont., one boar; Major Bros., Whitevale, Ont., one boar; Peter Breake, Zoogrove, Ont., one sow. My herd at present numbers over 30 fine animals, and is headed by my noted boar Royal Hero (831), and Star (727). My breeding sows are of the large strain and all prize animals.

ORMSBY & CHAPMAN, SPRINGFIELD ON THE CREDIT, write: "The demand for our improved large Yorkshires seems to be increasing all the time, we have sold every pig we can spare, and still have orders to fill, but we have eleven fine sows, all registered to farrow between now and the end of April, so should have a good supply of young pigs for the spring trade. We have to report the following sales of Yorkshires: Rathbun & Blaikie, Deseronto, 1 pair; F. A. Gage, Simcoe, 1 pair; D. Evans, Beaverton, 1 pair; C. Strucher, Wellesley, 1 pair; Jas. Coult, Barrie, 1 pair; R. & J. Hall, Edmonton, 1 boar and 3 sows; E. Foster, Clarkburg, 1 pair; Wm. Grigg, Grimsby, 1 boar; Levi Pike, Locust Hill, 1 sow; N. Machell, Aurora, 1 boar and 2 sows; Wm. Slade, Clarkson, 1 pair; Geo. Thomson, Bright, 1 sow; J. Hodgson, Shelbourne, 2 boars; C. N. Christner, Hayville, 1 pair; J. H. Patton, Paris, 1 pair; S. M. Culver, Simcoe, 1 pair; S. Gilmore, Beamsville, 1 boar; E. B. Switzer, Switzer, 1 pair; John Face, New Hamburg, 1 boar; J. F. Hammond, Millbank, 1 boar; F. S. King, Beaverton, 1 boar; S. G. Smyth, Rosemount, 1 boar. We might mention here that it is just three years since we imported the first pedigree improved Yorkshires ever brought to Canada, and this year we have sold over \$15000 worth of improved Yorkshire pigs, besides booking a number of orders for spring pigs of 1890. Looks as if the improved Yorkshire was coming to stay, does it not?"

H. GEORGE & SONS, CRAMPTON P.O., ONT., write: "We have made the following sales of pure-bred swine within the last three months: To R. M. Brown, Cowansville, P.Q., one Chester boar; to Geo. White, Emerald, Muskoka, one Chester sow; to Geo. Beaudet, Valley Field, P.Q., one Chester boar and sow; to Wilson Stoddart, one Chester boar; John Pringle, Guelph, one Chester boar; Duncan Campbell, Norwood, one Chester boar; Donald Jack, Newton, Chester boar and sow; Edward Trott, Christina, one Chester boar; Geo. Gill, Russell, one Chester boar; Geo. Patterson, Watford, one Chester sow; Fred. A. Stagg, Brockville, Chester boar and sow; W. H. May, Trenton, two Chester boars; Benjamin Johnston, Rodney, one Chester boar; P. G. Walker, Westwood, one Chester boar; Adam Hill, Durham, one Chester boar; John Mahoney, Newmarket, one Chester boar; John Moorhouse, Sutherland's Corners, one Chester boar and sow; to R. Dorsey, Birmingham, one Suffolk sow; T. Douglas, Galt, one Suffolk sow; to John Haw, Bracebridge, one Suffolk boar; Geo. White, Emerald, Muskoka, one Suffolk sow; Thos. Agar, Lucknow, one Suffolk boar; Joshua McMahon, Cookstown, one Suffolk boar; John Collins, Union, one Suffolk boar; M. G. Kulp, Bayham, one Suffolk boar; Edward Boyd, Kars, one Suffolk boar; to Richard Rivers, Walkerton, one Berkshire boar; Geo. Truman, Calton, one Berkshire boar; N. White, Watstown, one Berkshire sow; William Trick, Theford, one Berkshire boar. Our herd took 47 prizes at the leading fairs this fall. We find the sale of Chester Whites on the increase."

Poultry

WM. COLLINS, PROPRIETOR EAST UNION POULTRY UNION, ONT., reports splendid success at the fall fairs with his birds. At Aylmer, Ont., he made 14 entries and won 9 firsts and 4 seconds; at St. Thomas, Southern Counties Exhibition, he made 14 entries and won 6 firsts and 6 seconds; at West Elgin, he made 18 entries and won 15 firsts and 3 seconds. He has increased his flock by the purchase of several prize winners, including a breeding pen of Golden Wyandottes, from F. H. Scott, St. Thomas; a pair of Black Braasted Red Game fowl from C. Parker, Dexter; a pair of Langhans from J. Vance, St. Thomas; and also from F. H. Scott, a Cockerel that won first prize at Detroit show last winter.

# Auction Sale of Imported Stallions

## TEN CLYDESDALES ONE SHIRE AND ONE HACKNEY

Will be held in the Village of Brucefield, Huron Co., Ont., on  
**WEDNESDAY, JANUARY 29TH, 1890**

### No. 1. Quartermaster (6207) (Vol. X) :

Quartermaster (6207) (Vol. X.), black, white hind feet, near fore foot white to pastern, star on forehead. Foaled May 26th, 1886, bred by John Hendry, Chapel, Ringford. Sire, Gillie Callum (329) (Vol. VII.); grandsire, St. Lawrence, (3220) (Vol. VI.), great grandsire, Prince of Wales (673) (Vol. I.), great great grandsire, General (322) (Vol. I.); dam, Bell Chapel (1399) (Vol. V.); by Lorne (499) (Vol. I.); granddam, bred by John Stewart, Tonreuch, by Largs Jock (444). This is a very short legged, thick horse. He is a very good type of a Clydesdale.

### No. 2. Cranbrook (1752), Imported Hackney :

Imported Hackney Cranbrook (1752), chestnut, hind feet white. Foaled 1885, bred by John Brown, Huggate, Pecklington, Yorkshire, England. Sire, Frickwillow (208), grand-sire, Denmark (1720), by Prince of Wales (673), dam, by Bay President; 2nd dam, by Shakepeare (154); 3rd dam by Phenomena (184). His extended pedigree see H.S.B. This horse was imported by his present owner in the fall of 1887, and is a good representative of his breed. He stands fifteen and one half hands high and weighs 1,250 lbs., and is a strong muscular horse of splendid proportions, and in breeding to him if he does not throw a trotter he will be sure to sire a good road horse or one suitable for the English market. He was awarded diploma at the Western Fair, London, in 1887, and also first prize at Brucefield in 1888.

### No. 3. Osman Digma (6127) Vol. X. :

Osman Digma (6127) Vol. X. Bay stripe on face and three legs; foaled 1886. Sire, Garnet Cross (1662) Vol. IV. Dam, Kate Campbell (4786) Vol. VIII., by Prince Imperial (1258); granddam, Nannie of Raitra, (1075) Vol. V. by Superior (827); great granddam, a mare bred by S. Campbell, Raitra, by Victor (892). This is a horse descended from such horses as Prince Charlie and Lochfergus Champion on one side, and on the other Dandy Jim and Prince of Wales (673). He is a well topped beautiful legged horse, and is developing into a good one.

### No. 4. Gallant Prince :

Gallant Prince. Brown, white hind legs, stripe on face; foaled May, 1886. Sire, Borneo (3453) Vol. VII.; dam, Mary (5638) Vol. IX., by Prince David (643) Vol. I. This horse contains the blood of Topgallant and Darnley on one side, and on the other Prince of Wales (673). This is a good thick horse on short legs, with splendid feet and pasterns, and an excellent mover.

### No. 5. Sir William Bryce (5363) (Vol. IX.) :

Sir William Bryce (5363) (Vol. IX.). Light bay, white markings; foaled, March 25th, 1885. Imported by Prof. Smith, V.S., Toronto, bred by John Keer, Colleenan Troon. Sire, Sir Michael (1530) (Vol. III.); grandsire, Darnley (222) (Vol. I.); great grandsire, Conqueror (199) (Vol. I.). Dam, Nora of Stracathro (3143) (Vol. VI.), by King Monarch (608) (Vol. I.); granddam, bred by Angus McLean, Dunagol, Bute, by Surprise (845) (Vol. I.). Sir William Bryce is a very compact horse, short legs, plenty of bone and hair, grand feet and pasterns. As will be seen from his pedigree he is descended from the most fashionable strain of Clydesdale blood. He has also proved himself a good stock horse, being the sire of many good colts which can be seen in the neighborhood of Brucefield.

### No. 6. Springfield Darnley Vol. XII. :

Springfield Darnley Vol. XII. foaled May, 1887. Brown, white face, and white hind legs. Sire, Springfield Darnley (2499) Vol. V. dam, Myrie (J) XII, by Springfield Laddie (818) Vol. I., he by Surprize (1034) Vol. I. This horse has on one side the Darnley blood and on the other the Campsie. This is a very thick short legged horse, and is a true type of a Clydesdale, with good feet and legs and all appearance of a breeding horse, with good action.

### No. 7. Golden Chain, Vol. XII. :

Golden Chain, Vol. XII. Bay, white on face, and hind feet white a little, white on one front foot; foaled, June, 1887. Sire, Golden Guinea (3660) Vol. VII. Dam, May of Aird (4236) Vol. I., by Lochinch (1467) Vol. III.; granddam, Netty (866) Vol. IV., by Abbey Prince (2) Vol. I.; great granddam, Maggie, by Rampling Bob (1283) Vol. II.; great great granddam, a mare by Brown Briton 1083 Vol. II. This is a coming horse of strong bone, with good feet and pasterns. He is promising to develop into a big horse, and with splendid action.

### No. 8. Maclyon (6049) Vol. X. :

Maclyon (6049) (Vol. X.). Bay, little white on face, hind feet and near fore foot white; foaled, May 26th, 1886. Bred by William Vivers, Dornock own, Arnan, Dumfriesshire, Scotland; imported by P. McGregor, Brucefield, Ont., in 1887. Sire, Lyon of Purdostown (4549) (Vol. VIII.); grandsire, Macgregor (1487) (Vol. III.); great grandsire Darnley (222) (Vol. I.). Dam, Dornock Bell (6834) (Vol. X.), granddam, Dornock Star (1819) (Vol. V.); great granddam, Dornock Jean (435) (Vol. II). Maclyon is a strong built, short legged horse, with beautiful withers and highly arched neck, with a neat Clydesdale head, deep body, and well-turned quarters, with finely formed legs of hard flat bone, good feet, and pasterns. He is a good mover, and when in good condition will weigh 1,500 lbs. He has been quite successful in the prize-ring, being first as a two-year-old at Hensall in 1888, and also first at Brucefield the same year. In 1889 he took first prize at Brucefield as a three-year-old, and also diploma for the best draught horse of any age.

### No. 9. Sampson.

Sampson, foaled 1886. Brown, star on forehead, and one hind pastern white. He was imported from Lincolnshire, England, in 1882. Sire, Farmer's Glory; grandsire, Drayman, great grandsire, Sampson; great great grandsire, Sampson, sire, Sampson, of Witcham; dam, Flora. This is a big massive strong horse with heavy bone. He has been travelled in this district for some years, and has proved himself an excellent breeding horse and a sure foal getter.

### No. 10. St. Stephen (7232) Vol. X.

St. Stephen (7232) Vol. X. Brown, white hind feet, and star on face; foaled 27th May, 1887. Sire, McDuff (4560) Vol. VIII.; dam, Mettle (3249) Vol. VII., by Gladstone (333) Vol. I.; granddam, Nancy, by Lockven Champion (448) Vol. I. The pedigree of this horse has few to equal it. On one side he has McGregor's and old Darnley's blood, and on the other he traces to the oldest blood of Clyde horses, such as Campsie and Sir Walter Scott. This is a horse of first-class quality, with extra good feet, pasterns, and legs.

### No. 11. Dr. Smith (813) (Vol. B.) D.D.S.B. :

Dr. Smith (813) (Vol. B.) D.D.S.B. Bright bay, hind feet white. Bred by Hugh McGregor, Brucefield, Ont., foaled Aug. 28th, 1888. Sire, Sir William Bryce (5363) (Vol. IX.); grandsire, Sir Michael, (1530) (Vol. III.); great grandsire, Darnley (222) (Vol. I.); dam, Nancy, by Honest Tom (707) (D.D.B.) Dr. Smith is a strong colt, very muscular, large flinty bone, with long silky hair. He is a good representative of his famous sire, Sir William Bryce.

### No. 12. Maple Leaf, Vol. XII.

Maple Leaf, Vol. XII., foaled May, 1888. Brown, stripe on face, and hind legs white. Sire, Last of the Lyons (5955) Vol. X.; dam, Rosie, of Belstan (5704) Vol. IX., by Miller Jock (541) (Vol. I.); great granddam, a mare bred by J. Ferguson (J) Vol. XII., by Largs Jock (444) Vol. I. This is a horse with a good pedigree, with splendid legs and feet, and much substance. He is developing into a first-class horse. This colt was exhibited in 1889 in Lanark, Scotland, beating nineteen other colts, and took Sweepstakes for the best horse on the ground considering age.

## SALE COMMENCES AT ONE O'CLOCK SHARP

This stock of horses will positively be sold, as the proprietors are going out of the business. These Stallions are young and sound, and off the best strains of stock in Britain. Any parties wishing to examine these horses before the day of sale may do so.

**MASON & MCGREGOR,**  
BRUCEFIELD P. O., HURON CO., ONT

At Brucefield is on the London, Huron and Bruce Branch of the G.T.R., but parties attending the sale will be met at Seaforth Station, which is only six miles distant on the Stratford and Goderich branch, if more convenient.

MISCELLANEOUS ADVERTISEMENTS.

**VICK'S BANNER OATS**

These Oats, during the past season have had a thorough trial throughout the Canadian provinces, and the universal testimony of those that have grown them, is highly in favor of this variety as may be judged from the following, selected from many

**TESTIMONIALS**

R. G. Martin writes:—"From the two bags of Vick's Banner Oats I sowed one bag (1 1/2 bus.), by hand broadcast, on two acres of land, and they yielded 149 bushels by machine measure."

D. R. Ross informs me:—"Every farmer to whom I sold is well pleased with the yield and quality. Some are regretting that they did not sow all Banner seed, even at the high price charged; the extra yield would have paid well. As a milling oat I consider it very good, and just the kind desired by oatmeal millers, being thin in the hull and with a long kernel."

David Miller writes:—"In comparison with others I have no hesitation in saying that the Banner Oats will yield nearly, if not quite double the amount of grain than any other variety we have will yield, and they will be a better quality as they ripen earlier, more evenly, and are free from rust. I expect them to yield about 60 bushels per acre."

These are just a few of the number received lately. On our own farm we harvested 91 bushels, 6 lbs. cleaned oats from a measured acre. The whole averaged 70 bushels per acre.

**DESCRIPTION**

The grain is white, large and plump, ripens easily, has a stiff straw and an open and branching head. It tillers freely and so can be sown thinner than is customary. I take special care and give every attention to keeping the seed free from all foul seeds.

**PRICES**

In quantities under five bushels, \$1.00 per bushel and 20 cents for bags.

In quantities over five bushels, \$1.00 per bushel and good cotton bags free.

In quantities of Ten bushels and over 80 cents per bushel and good cotton bags free.

I can ship either by G. T. R. or C. P. R. Intending purchasers will do well to order early. All orders promptly attended to.

JOHN MILLER, Markham, Ont.

These Oats may also be obtained from Caldwell Bros., Orchardville, at same prices. jad

**SEEDS**

If you wish to grow the largest mangels procure Evans' Mammoth Saw Log Variety.

The Best WHITE CARROT.

Improved WHITE BELGIUM

and GREEN TOP ORTIE,

The Best SWEEDING TURNIP,

(Westburg Improved).

SHAMROCK and BANGHOLM.

Catalogues ready for distribution about the middle of January

Free on application.

ROBERT EVANS & CO.,

Seed Merchants and Growers,

HAMILTON, CANADA.

jad



Johnston's Floor Paints are widely and favourably known for their quick drying, beauty, and durability.

Obtain two new subscribers to The Journal and your own copy with out you nothing.

**J. I. C.**

The entire stock of the Celebrated JAY EYE SEEDS for sale. Patent was issued in Canada about one year ago. This is a bargain for a live man. These seeds have been shipped from the States formerly, but the quality is high.

Over 50,000 sold in the States since its first introduction little over one year ago.

Endorsed by Veterinary Surgeons, Army Officers and Horse-men generally. Prices and terms very reasonable if taken at once. Write for full particulars and testimonials. First come first served. Address

H. W. CAMPBELL, Patentee, - Racine, W. s. jad

**SEED GRAIN**

The undersigned have for sale True to Name and Free from all Impurities

the following grains, viz:

- Colorado Spring Wheat,
- American Banner and White Roland Oats,
- Prussian Blue and Crown Peas.

Samples and descriptions sent on application. Also a few choice Durham helpers and cows with calf, and Berkshire Pigs (all eligible for registration) at prices to suit the times.

R. RIVERS & SON, - SPRING-BILL ARM Walkerton, Ont.

**SHEEP**

**LORRIDGE FARM.**

**SOUTHDOWN SHEEP.**

Flock first established 1857. Commenced exhibiting in 1877. Since then have taken over 1,000 prizes, including a large number of medals and diplomas.

Imported Rams used only.

Stock for Sale.

ROBERT MARSH, PROPRIETOR.

Richmond Hill, Ont.



**CATTLE.**

**JERSEYS LAKEHURST HERD OAKVILLE, ONT.**

St. Lambert and other noted strains—all registered in the American Jersey Cattle Club Register. Also Berkshire pigs. Stock for sale. Inspection invited. Address

T. E. BRAMELD,

Lakehurst Jersey Farm, Oakville, Ont.

Oakville station on G.T.R. Midway between Toronto and Hamilton.

**CRUICKSHANK SHORTHORNS,**

Clydesdales and Shropshire Sheep

IMPORTED and HOME-BRED

FOR SALE Seven Choice young Bulls, FIVE RED AND TWO ROAN IN COLOUR.

All of superior merit and out of imported cows. Also a few young cows and heifers and one imported stallion. Address

JOHN DRYDEN, BROOKLIN, ONT.

Show and Store Ewes, choice Rams, and Lambs for sale at moderate prices.

Inspection invited. Catalogues on application. jamc.

JAMES HUNTER, ALMA, ONT.,

SOLE IMPORTER AND IMPORTER OF

SHORTHORN CATTLE,

CLYDESDALE HORSES,

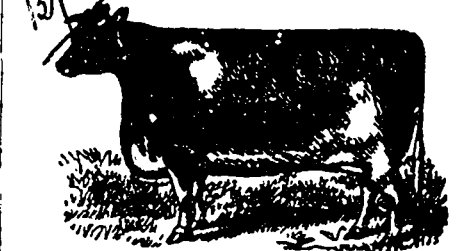
and Shropshire Down Sheep.

Stock of both sexes for sale. jamc



**CATTLE**

Arthur Johnston GREENWOOD, ONT., CAN.



Announces to his customers, and the public, that he is still doing business at the old stand, and has for sale the finest lot of young animals, of both sexes, ever offered by him. The yearlings of both sexes are exceedingly good—all by imported bulls, and mostly out of imported dams.

Intending exhibitors can be supplied with first-class show animals of either sex and of various ages. New catalogues will be ready by January 20th, 1890. Send for one.

Claremont Sta'n, C.P.R., or Pickering Sta'n, G.T.R.

Write or wire me, when and at which station to meet you. No business, no harm. jamc.

**CLAREVILLE STOCK FARM**

Lying between Canada Southern Railway, and Grand Trunk Air Line. Cayuga Stations.

I breed and have

FOR SALE

A-I SHORTHORNS

Baron Constance 10th, heads the herd.

Leicester and Cotswold Sheep, Berkshire Pigs.

Thorough-bred and Heavy Horses of all kinds.

Young Bulls a specialty.

Supply always on hand. Come and see.

Janic. J. R. MARTIN, CAYUGA, ONT.

J. Y. BEID, HILLSIDE FARM,

1/2 miles south from Paris, on the G. T. R.

5/13/90

WE have on hand and for sale a superior lot of show cows, heifers, and young bulls. This season's calves being mostly from the imported Scotch Bull,

EARL OF ROSEBERRY.

Intending purchasers will be met at Paris station. Apply

aproc. JAMES GEDDIE, MANAGER, PARIS, ONT.

5/13/90

**BELVOIR HERD**

OF

Pure-Bred Shorthorns.

The Bates portion of herd is headed by imported 8th Duke of Leicester—1879—

and consists of the following families:

Waterloo Const ocs

Princess Charers

Darlington Filigree

Garlands

Scraps

Etc.

There are some imported Booth Cattle, and Scotch strains are also included.

Purchasers can depend upon fair treatment and liberal usage.

KOMOKA STATION

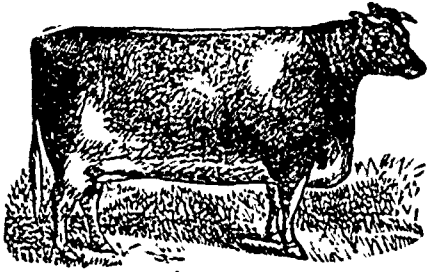
3 MILES

Richard Gibson - Delaware P.O.

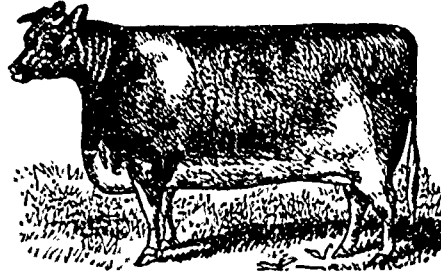
aproc



# Belvedere Stock Farm



Pure-Bred  
BATES  
Shorthorns



Since the Starting of our Herd the Following Bulls have Been Used:

Fourth Duke of Sylvan (3120); Young Oxford (4059); Ninth Duke of Sylvan (3120); Elvina Oxford (1762); Seventh Earl of Darlington (1147); Duke of Mara Fourth (4084); and Rosy Prince 6th. The cows also have been of good Bates strains, including Rosettes, Berthas, Consandes, and Chesterfields. Our young stock are descendants of the foregoing and we have a

## CHOICE COLLECTION OF YOUNG BULLS

the most of which are sired by our present stock bull Rosy Prince 6th, which we also offer for sale. They include: Baron Chesterfield (1194), red, little white, calved Oct. 23rd '87, dam Lady Chesterfield, 4th sire Rosy Prince 6th; Baron Chesterfield 2nd (11942), red, little white, calved Nov. 11th, '88; 2nd Earl of Belvedere (11940), dam Maid of Darlington, sire Rosy Prince 6th; Bertha 6th, red, little white, calved May 10th, '88, dam Bertha 6th, sire Rosedale Oxford 5th; Count of Oxford, calved April 3rd, '88, red, dam Countess of Darlington, sire Rosy Prince 6th; Prince of Elmira (11943), calved February 6th, '88, red, dam Lady Elvina, sire Rosy Prince 6th; Belvedere Chief (11947), calved Dec. 27th, '88, red, dam Consande 2nd, sire Rosy Prince 6th. We have also a number of young heifers to dispose of, and they, like the bulls are

## DESCENDANTS OF GOOD MILKING STRAINS

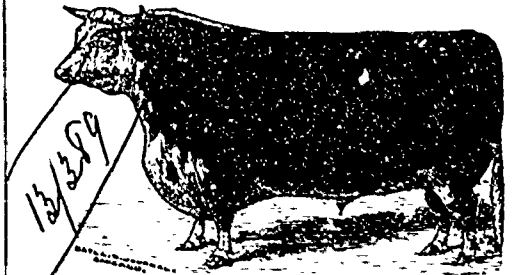
All our stock are registered or eligible for registration in the Dominion Shorthorn Herd Book. Write us for particulars.

**GRAHAM BROS.,**  
AILS CRAIG, ONT.

# 1890 MORETON LODGE 1890

GUELPH, ONTARIO, CANADA.

## Shorthorn and Hereford Cattle



SIR CHARLES 543 (3434) BRED BY F. W. STONE.

## COTSWOLD AND SOUTHDOWN SHEEP

Berkshire Pigs and Suffolk Punch Horses.

Bull Catalogue for 1890 on application.

90 Hereford Bulls and Bull Calves,  
20 Shorthorn Bulls and Bull Calves.

Good animals, First Class Pedigrees, Reasonable Prices.  
Females of both breeds and all ages for sale.

F. W. STONE, - - - Guelph, Ont.

Office, 42 Gordon St. Five minutes walk from G.T.R. and C. P. R. jam.

## THE BRIARS FARM

SUTTON WEST, ONT.

Choice of 60 head of

## SHORTHORNS

Including three yearling bulls, by Butler fly Duke 6th, he by 4th Duke of Clarence of Bow Park fame, all from the best strains, and registered in the Dominion Herd Book. Also young Horses and Pigs. Inspection invited. F. C. SIBBALD.

jam.

3/162

**LITTLE'S PATENT FLUID**  
**NON-POISONOUS**  
**SHEEP DIP AND CATTLE WASH.**

## CHEAP \* CONVENIENT \* AND \* EFFECTIVE.

The best Non-poisonous Sheep Dip and Cattle Wash in the world.

A "CHEMICAL FOOD" FOR THE WOOL.  
Rapidly increases the quantity and improves the quality.

### IT IS EASY TO USE,

Requires very little preparation, mixes instantly with cold water, leaves no sediment, no scum, no waste.

### CERTAIN DEATH TO LICE, MANGE.

And all insects upon Horses, Cattle, Calves, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, Sores, Saddle-Galls, Sore Udders, etc.

### EXTRACTS FROM SOME OF OUR NUMEROUS CANADIAN TESTIMONIALS.

"We think a great deal of it."—Prof. Brown, late of Agricultural College, Guelph.

"Sure death to lice on cattle and colts."—Robt. Marsh, Lorridge Farm, Richmond Hill.

"Gives great satisfaction."—W. Whitelaw, Guelph.

"Best ever used."—Jas. Russel, Richmond Hill.

### 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.

MANUFACTURERS AND PROPRIETORS,

**Morris, Little & Son, Doncaster, Eng.**

Ask your nearest druggist to obtain it for you, or write for it, with pamphlet, etc., to

**ROBT. WIGHTMAN, DRUGGIST,**

**OWEN SOUND, ONT.**

Sole agent for the Dominion. Myme.

## W. J. RUDD,

EDEN MILLS P.O., Ont

Breeder of Choice Devon Cattle. During the past five years, at the leading Exhibitions in Canada, my herd has stood first whenever shown, winning five Diplomas, one Gold, thirteen Silver and one Bronze Medal.

Stock for Sale including Berkshire Pigs, Cotswold Sheep, and Plymouth Rock Fowls.

decme



## SHORTHORNS

I have for sale six female Shorthorns from 8 to 29 months old, and three bulls, including

### LORD LINTON

A winner at the Detroit International, he is coming three, large, handsome, grandly bred and an excellent sire. He will be released from quarantine in 15 days. These animals have been all bred by me from imported stock. D. ALEXANDER, Brigden, Ont.

jam

## HEADQUARTERS FOR

### SHORTHORN CATTLE and Shropshire Sheep

At Ottawa Central Exhibition in September last we won with our cattle, sheep and pigs, Eighteen First, Five Second, and Three Third Prizes, and were also successful in winning the 210 Silver Cup given by the Shropshire Association of England for the best pen of Shropshires. At present we have a rare lot of Shorthorn stock for

### Purchasers to Select From

all of the best of Cruckshank breeding and individual merit of the highest.

**W. C. EDWARDS & CO., ROCKLAND, ONT.**



### AYRSHIRE CATTLE and Berkshire Pigs

We have also young Ayrshire stock of both sexes of splendid Ayrshire form and excellent dairy qualities. We have on hand four well developed pure bred Ayrshire bull calves fit for service in Spring. All got by Imported bull Promotion. The bulls, rams and boars that have been used by us are mostly imported, and with every animal we can furnish a straight pedigree. Our Shorthorns are all registered in the Dominion Shorthorn Herd Book. If you want anything in these lines write us and we will promise you satisfaction as our animals are all of the best and prices reasonable.

## MAPLE LODGE STOCK FARM.

We breed and have FOR SALE Shorthorn Cattle, Leicester Sheep AND Berkshire Pigs,

Herd established in 1857 and stock in 1854.

Our stables are one mile west of Lucan Crossing, on Grand Trunk (main line) and London, Huron and Bruce Railways.

Several females and young Bulls, sired by Duke of Colonus 9282 can be purchased now at very moderate prices.

Also a few choice ram lambs, sired by the First Prize ram at London and Toronto Exhibitions 1889.

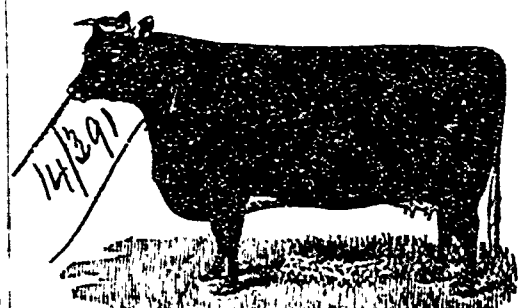
We are always pleased to show our stock.

**JAS. S. SMITH,**  
Maple Lodge P. O., Ont.



## FRANK R. SHORE & BROTHERS.

R. R. Station, London, White Oak P.O.



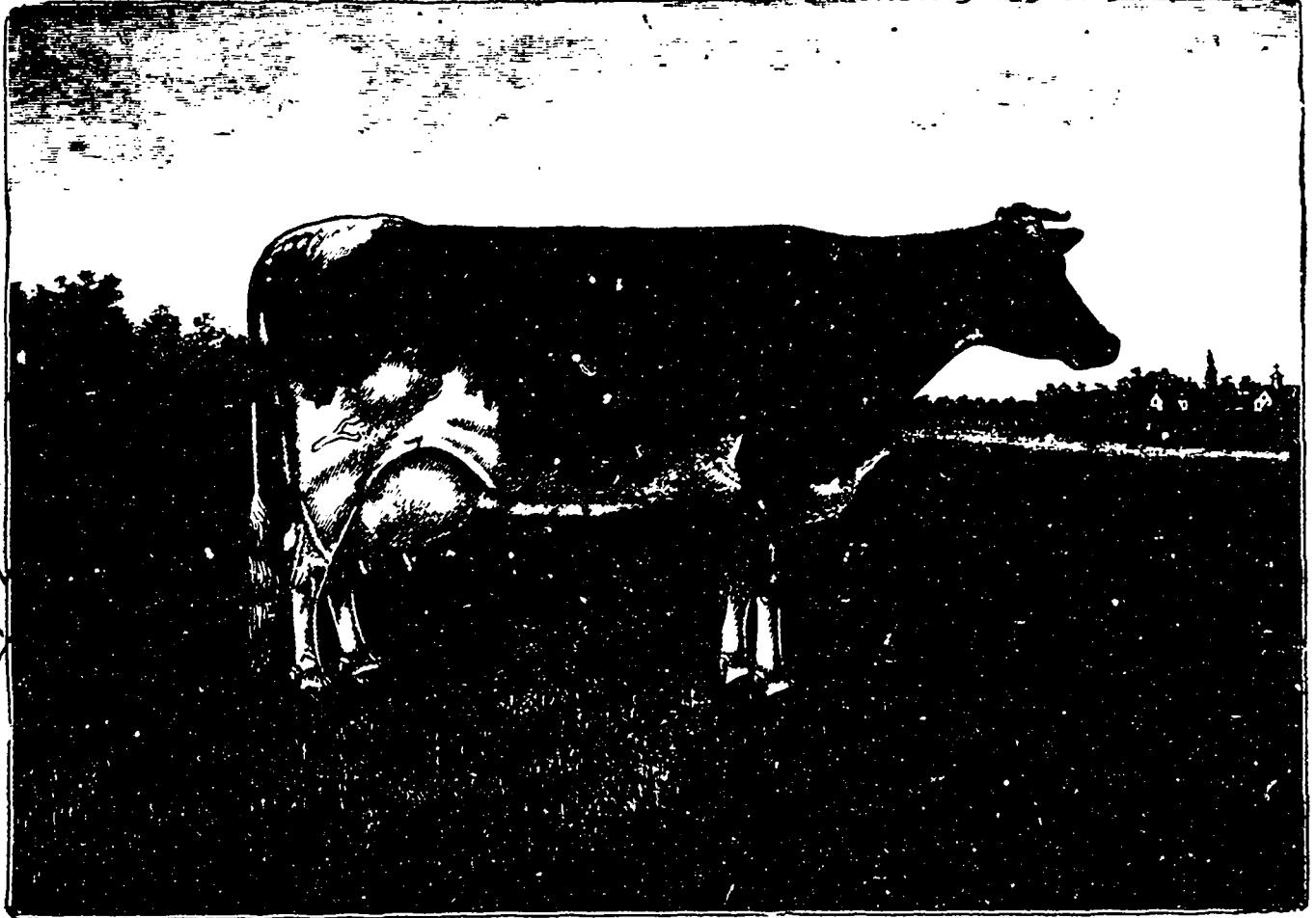
—BREEDERS OF—

## SHORTHORNS AND SHROPSHIRE

Have a grand lot of bull calves sired by our imp. Cruckshank Bull, Vermilion (50567), and a very choice lot of heifers, now in calf to Vermilion; also shearing rams and ram lambs from imp. sire and dams. Prices moderate. Terms easy. jam.

Advise your boys to make their experiences for our Boys' Department competitions.

# The Great Milk and Butter Herd of Holstein-Friesian Cattle



14/397

**MINK.**

The above illustration represents "Mink," the dam of "Mink's Mercedes Baron," the stock bull of our herd.

Carefully selected and bred with this object in view.

**MOST FIRST PRIZES OF ANY HERD IN CANADA AT THE PROVINCIAL AND INDUSTRIAL EXHIBITIONS 1888 and 1889**

All the best families represented. Plain feeding and ordinary care. Prices right and within range of all farmers. Over 75 head in the herd. Catalogues free and visitors welcome.

**SMITH BROTHERS,**

**Credit Valley Stock Farm,**

**Churchville, (Peel Co.), Ont.**

**CATTLE.**



**J. & W. B. WATT,**  
BREEDERS OF SHORTHORNS  
CLYDESDALES AND  
OXFORD DOWN SHEEP AND  
BERKSHIRE PIGS.

A number of Choice Young Bulls for  
sale spec. SALEM, Ont.

**JOSEPH REDMOND**  
PETERBOROUGH P.O., ONT., CANADA.



I have still on hand and for sale an excellent lot of imported  
bulls, heifers, and young cows, besides an exceedingly good lot  
of home-bred heifers and bulls, all by imported sires and mostly  
from imported dams. I can supply intending exhibitors with  
first-class show animals of either sex and of various ages, from  
calves upward. Of my last imported, ten were from Bruce and  
Cruickshank breeding, all show animals.  
Peterborough is on the C. P. R. and G. T. R. Six trains  
daily. Write or wire me when to meet you. Will be pleased to  
show the stock, whether you purchase or not.  
apv. **JOSEPH REDMOND.**

**HAY & PATON.**  
KINNOUL PARK STOCK FARM,  
NEW LOWELL, ONT.



BREEDERS AND IMPORTERS OF CHOICE  
**ABERDEEN-ANGUS POLLS.**

We have reserved from the sale of our champion herd of Polls,  
some 17 excellent females, with that splendidly-bred Ruth bull,  
Runnymede and, at their head, and have started afresh to breed  
the comely doddie with individual merit (as before) the gusling  
star of our efforts. We are at present sold out, with the excep-  
tion of two or three yearling bulls.  
We have also a flock of over a hundred head of fine Shrop-  
shire sheep, the ram lambs and yearlings of which we have now  
for sale at reasonable prices. Send postal card for list and  
terms. aume.

"If I did not advertise, I could not sell my stock  
around home" - A. G. W. of Merinos and Ayrshires.

If you want to get ahead in the world, show some  
enterprise and advertise in the L.S.J.

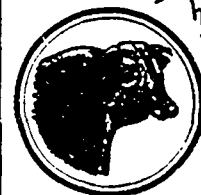
**BOW PARK HERD**  
OF



**PURE-BRED SHORTHORNS**

We have on hand eighteen young bulls fit for service, good  
animals and well bred, which we offer at reasonable prices and  
on liberal terms. Address:  
**JOHN HOPE, Manager,**  
Bow Park, Brantford, Ont.  
Myme.

**THE PARK HERD OF HEREFORDS.**



This herd embraces over  
**500 HEAD OF CHOICE ANIMALS**  
All registered. Catalogues sent  
on application.  
**F. A. FLEMING,**  
Weston, Co. York, Ont.  
Farm, half a mile from C. P. R. and  
G. T. R. Stations, eight miles  
from Toronto.



CATTLE.

WM. KOUGH,  
OVEN SOUND P.O. ONT., CANADA



MY HERD OF

Pure bred Pedigreed Galloway Cattle

now numbers thirty-six. CLAVERHOUSE (4250) 4614, imported, the champion bull of all ages at Toronto and London Provincial in 1889 is at the head of my herd. Claverhouse, cowess of Claverhouse, born 17 4611, imported from Mary 5th, 3600, and Miss Steele 5th, 4248, composed the

CHAMPION HERD

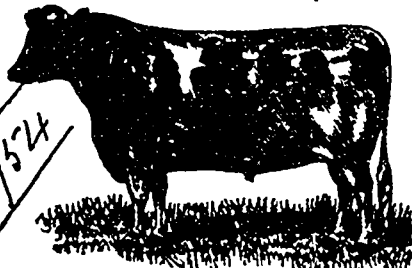
at London and Toronto this year, and are now in this herd and were shown by me. There is no herd in Scotland or on the Continent of America containing a

Greater Percentage of Individual Merit

Quality aimed at.

Cattle of all ages for sale Correspondence solicited.  
jam Catalogue Free.

E. PAGE & SONS, Amherst, Nova Scotia.  
On line Intercolonial Railway.



IMPORTERS AND BREEDERS OF  
HOLSTEIN-FRIESIAN CATTLE,

Includes strains of the best milk and butter families living. Herd headed by CLOTHILDE and's ARTIS, whose dam, Clothilde and, gave at 4 years old, 23,602 lbs. of milk, and made 53 lbs. 4 oz. of unsalted butter in seven days when six years old. G. dam, Clothilde, winner sweepstake prize at New York Dairy Show, has milk record of 26,080 lbs. of milk, and 28 lbs. of unsalted butter in seven days. Sire, Artis, winner first prize at New York Dairy Show.

Young stock, all ages, for sale, including Carlotta's Netherland Prince, dam Carlotta, with butter record of 22 lbs. 1 oz. unsalted butter; sire, Netherland Prince. Prices low for quality of stock.

THE  
TUSHINGHAM  
HEREFORDS



THIS herd is remarkable for the number and uniformity of the good calves that it produces. It has taken all the Medals given in the Province of Quebec, at leading exhibitions the last three years. Breeders who are anxious to get bulls or females with plenty of hair and of good quality and good milk producers, should see this herd before purchasing elsewhere.

J. WALTER M. VERNON,

TUSHINGHAM HOUSE, Waterville, P. Q.  
Waterville is on the main line of G. T. R., 110 miles east of Montreal.



HILLHURST HERDS.

HEREFORD,  
Aberdeen-Angus and Jersey  
Helpers, Cows, and Young Bulls for Sale  
At reasonable prices. Send for new Catalogue.

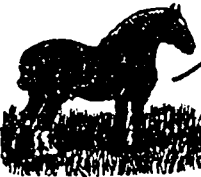


M. H. COCHRANE, Hillhurst, Que., Can.

novme.

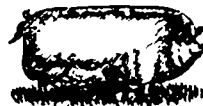
ONTARIO LODGE STOCK FARM

SHIRE AND CLYDE HORSES



IMPROVED YORKSHIRE PIGS

Stock Mostly Imported or from Imported Animals.



A fine collection of Fall Pigs yet for Je. Correspondence promptly attended to and Prices to suit the Times.

E. M. JARVIS, Proprietor, OAKVILLE, or CLARKSON'S P. O. on G. T. R., Ont.

decme

Shire Horses

We have a number of Imported Stallions and Mares on hand, all registered in the Eng. Stud Book. We want to clear them out and will sell at very low figures. They are the right kind, low set and heavy.

SHROPSHIRE, BRED FROM PURE IMPORTED STOCK.

Address—ORMSBY CHAPMAN, THE GRANGE FARM, "Springfield-on-the-Credit."

Station and Telegrams: STREETSVILLE.

jame

Improved Ycrkshire Pigs

We have the Pioneer Herd of Pedigreed Yorkshire Pigs in America. All bred from the BEST ENGLISH STRAINS. Every pedigree guaranteed. Prices low. We are now booking orders for fall pigs. Also

JAS. DRUMMOND,

PETITE COTE, MONTREAL.

Imported and breeder of

PURE-BRED

AYRSHIRE

CATTLE

Of Large Size, and from Choice Milking Strains.



The herd numbers sixty-five head, and for three years in succession has won Provincial or Dominion Prize as best milkers. The imported bull, ROB ROY (3571), at head of herd.

Young Stock on hand at all times for sale  
feme

SPRING BROOK STOCK FARM.

A. C. HALLMAN & CO.,

New Dundee, Waterloo Co., Ont.



IMPORTERS AND BREEDERS OF  
PURE-BRED, REGISTERED

HOLSTEIN-FRIESIAN CATTLE.

The choicest and most uniform herd in Canada. Upwards of 40 head to select from. Only choice stock of highest milk and butter production selected from. Individual merit and pedigree a special object. Direct descendants of A-ggie, Artis, Netherland, Jobanna, and Billy Bolyn.

Stock of all Ages and both Sexes for sale from above Families. Prices reasonable considering quality. Send for Catalogue.

No other paper published in Canada or out of it gives the farmer such value for his money as The Live Stock Journal.

HORSES.

IMPORTED CLYDESDALES FOR SALE.

At prices to suit the times I offer a superior selection of STALLIONS AND FILLIES

From one to four years of age which have won several prizes at the biggest shows in Scotland and Canada, out of the gets of such sires as



Topgallant, Jordanshaw, St. Malcolm, Sir Hildebrand, Old Times, Baron O'Shroave, & Lord Hope-town.

Correspondence solicited. Visitors always welcome. Nearest station PONTYPOOL, C.P.R., where visitors will be met by wiring me to Pontypool.

T. W. EVANS,  
Yelverton, Ont.

James Gardhouse & Sons,  
Malton, Ontario, Canada.

Breeders and importers of  
CLYDESDALE and SHIRE

HORSES,

Shorthorn Cattle and Berkshire Pigs. Young Stock for sale. Terms reasonable.

James Gardhouse & Sons,  
Malton Station,  
Highfield P. O., Ontario



feme.

W. H. HUTCHINSON,  
NAPANEE, ONT.,

IMPORTER OF  
SHIRE, CLEVELAND BAY and  
YORKSHIRE COACH  
HORSES.

Three year-old Stallions of all breeds, for sale at lowest prices. Stables five minutes' walk  
G. T. R. Station.

All Stallions Registered in the English Stud Book.  
Spene



HORSES.

*11/3/22*  
**LA COMPAGNIE**  
**du HARAS NATIONAL**  
**30 ST. JAMES ST.,**  
**MONTREAL**  
 Splendid Percherons (Stallions and Mares), French Coach Horses. All with first-class pedigrees. Imported CONSTANTLY DIRECT FROM FRANCE Our connections enable us to import cheaper than any other firm. For Terms of Sale and for our Catalogue. Apply to

**HON. L. BEAUBIEN,** President.  
**R. AUZIAS-TURENNE,** Manager.

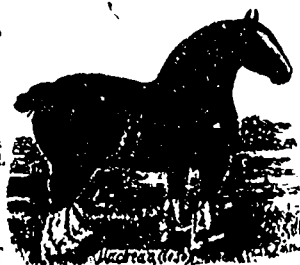
GRAHAM BROS., Claremont, Ont.

RESIDENCE ONE MILE FROM CLAREMONT STATION.

*11/10*  
 REGISTERED  
**CLYDESDALES**  
 —AND—  
**HACKNEYS.**

Stallions and Mares constantly on hand, and  
**FOR SALE**  
 on reasonable terms.

The importations of 1888 comprise a large number of one, two, three and four-year-old registered stallions and mares, the gets of such sires as Macgregor (1487), Darnley (222), Harold (6326), Crown Jewel (2708), Lord Marmion (2620), St. Lawrence (3220), and others of like merit. Also a few choice Shetland Ponies. Correspondence solicited. New catalogues just out. Visitors are always heartily welcome.



GEORGE G. STEWART, IMPORTER,

*11/10*  
**Howick, Chateauguay Co., Province of Quebec,**  
 Offered on reasonable terms CHOICE Podigreed Clydesdale Stallions and Fillies.



Amongst them are "Lord Rollo," sire Macaroni, first prize last year and this year at Huntingdon, P. Q., and this year at Montreal. "Lord Oliphaut," first prize this year at Huntingdon and St. Marine, P. Q., "Lord Cross," "Lord Duplin," etc.; all of various ages. Prize winners in Scotland, freshly imported, all from favorite and fashionable sires and registered in the British Clydesdale Stud Book.

Correspondence solicited and visitors welcome.

*10/28/6* **THE GLEN STOCK FARM**

Innerkip, Oxford Co., Ont.,

**Scotch Shorthorns,**

**Siire Horses,**

**Improved Large White Yorkshire Pigs.**



A few young heifers and bulls for sale at reasonable prices. Our first importation of Improved Large White Yorkshire pigs arrived home last month, from the herd of F. Walker-Jones, England, whose herd won over \$10,000 in prizes in three years. Orders now booked for young pigs. P.O. and Telegraph Office at Innerkip. Farm is one mile from Innerkip station on the C. P. R. (Ont. div.), and a short distance from Woodstock station on the Canadian Pacific and Grand Trunk R. R.

**GREEN BROS., THE GLEN, INNERKIP.** novme.

*11/3/20* **SHIRE BRED HORSES**



**MORRIS, STONE & WELLINGTON,**

Importers, offer for sale choice Stallions, Mares and Fillies, which are registered in the English and Canadian Shire Stud Books, including prize-winners at the Royal Agricultural in England, and the Industrial at Toronto. decme

**MORRIS, STONE & WELLINGTON, Wolland.**

*11/15*  
**CLYDESDALES,**  
**SHORTHORNS AND**  
**SHROPSHIRE**  
**John Miller,**



**Brougham, - Ontario,**

has on hand for sale a large collection of prize-winning animals of the above breeds. The Clydesdales are large and of the best quality. The Shorthorns are of the best Scotch families and of superior individual merit.

Particular attention is called to our Stallions and young Bulls, which will be offered at moderate prices. Terms easy.

Residence 3 miles from Claremont station, C. P. R., or 7 miles from Pickering Station, G. T. R., where visitors will be met by telegraphing us at Brougham. Correspondence solicited. fene.

Set your boys at work, first to compete in our prize competitions; second to obtain new and trial subscriptions.

Don't fail to get your boys interested in our Boys' Department.

*11/29/6* **D. & O. SORBY,**

**Guelph, Ont.,**

Breeders and Importers of

**Clydesdales,**



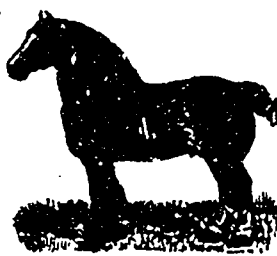
**37 PURE-BREDS** on hand and for sale, including gets of the following sires: Boydston Boy (111), Lord Erskine (1744), Macgregor (1487), Maclellan (454), The Granite City (5397), Macpherson (3825), Knight of Lothian (4489), McArmon (3818), Sir Maurice (4213), Darnley King (2717), Knight of Ellerslie (3737), St. Clair Erskine (4600), Douglas Chief (3603), Prince Charlie (620), What Care I (912), Macmillan (2992), and Gallant Lad (2781), many of our horses are descendants of Darnley (222) and Prince of Wales (673), and 23 of them are stallions and colts. Several of our mares are supposed to be in foal to our Boydston Boy (111) and Bold Boy (4257).

**IMPORTED CLYDESDALES FOR SALE**

**FROM** one to four years old, stallions and fillies from the best studs in Scotland, including gets from Macgregor, Harold, Knight of Snowdon, Sovereign, Crown Jewel, McArmon, What Care I, Clyde, Scott, Laird, Cairns, etc.

The best is selected by myself with great care. Parties wishing to purchase would do well to inspect personally before deciding.

Also a few **SHETLAND PONIES.** Correspondence Solicited. **HOWICK STATION, C. P. R.,** on the farm. (G. T. R. one mile from Howick also.) Address, **ROBERT NESS,** Woodside Farm, Howick P.O., Pro. of Que. fene.



**PONIES FOR SALE.**

One dark brown, 13 1/2 hands, 700 lbs., from a B. mare and half Arab stallion. One light brown, 13 hands, 600 lbs., from a 4-minute trotting Exmoor pony mare. Also a 14 1/2-hand Phil Sheridan Stallion, 2400 lbs. Both very kind and nicely broken to saddle. Address, **JAMES MOODIE,** Esq., Grove Stock Farm, Chesterville, P. O., Dundas Co., Ont. Dec. 9th.

**SWINE.**

*11/20*  
**W. GEORGE & SONS,**  
**CRAMPTON** IMPORTERS  
**ONTARIO.** AND BREEDERS

**OF OHIO IMPROVED CHESTER WHITE SWINE,**  
 Also S. Folk and Berkshire Swine. Sixty fine fall pigs now fit to ship from prize winning stock. All breeding stock recorded. Half rate by express.

*11/20*  
**F. D. GEORGE,**  
**FURNHAM, - - ONT.,**  
 IMPORTER AND BREEDER OF  
**IMPROVED CHESTER WHITE SWINE**  
 BREEDING AND INDIVIDUAL MERIT UNSURPASSED. fene.

*11/29/0*  
**DANIEL DeCOURCY,**  
**BORNHOLM, ONT.,**  
 IMPORTER AND BREEDER OF  
**OHIO IMPROVED CHESTER WHITE SWINE.**  
 Stock for sale. Registered pedigree. fene.

*11/20*  
**A. FRANK & SONS.**  
 The Grange P.O., Ont.  
 Cheltenham Station, C. P. R. and G. T. R. Railways.  
 The Cheltenham Sweepstakes herd of Suffolk Pigs, greatly improved. All registered.  
**THOROUGHBRED HORSES,**  
 Short-horns of Cruickshank blood, and Southdown Sheep from Webb's stock. Young stock of all the above for sale. All orders promptly attended to. fene.

Scientific farming is a profession, and THE CANADIAN LIVE STOCK AND FARM JOURNAL is the Canadian Farmer's professional journal. He cannot do without it.

*11/20*  
**CITY HOTEL**  
**State St., Cor. 16th St. CHICAGO, III.**  
**Special Rate to Stockmen,**  
**\$1.50 per day**  
 Within 10 minutes ride by State St. or Wabash Ave. Cable Line from Business Centre.  
**W. F. ORCUTT, Prop. FRED. MUELLER, Clerk.**

# FLORIDA

FREE HOMESTEADS FOR YOURSELF, YOUR WIFE AND YOUR CHILDREN, LAND IS THE BASIS OF ALL WEALTH.

## The Grandest Colonization

Enterprise ever offered to

The American People.

The Land of Flowers, of Orange Groves, of Perpetual Summer! Healthy, Prosperous, Delightful! Nature's Sanitarium!

### THE CO-OPERATIVE LAND AND IMPROVEMENT CO.

Offers You a Beautiful Cottage Site, Business Lot or Orange Grove Tract

# FREE

in one of the Best Locations in that favored State, Florida!

WARRANTY DEED, FREE OF INCUMBRANCE. TITLE PERFECT. LAND AND LOCATION UNEXCELLED.

#### READ OUR PROPOSITION

This Company, incorporated with an authorized capital of \$500,000, own and control 10,000 acres of land in and around LEROY, Marion County, Florida. To enhance the value of all this land by large and diversified ownership, the Company propose to give away a portion of this property in 40 ACRE TRACTS, 20 ACRE TRACTS, 10 ACRE TRACTS, 5 ACRE TRACTS, COTTAGE SITES AND BUSINESS LOTS.

All of these tracts are suitable for Orange, Lemons, Grape and Early Vegetable Culture. The above Tracts, Cottage Sites and Business Lots consist of about one-fourth our lands. By giving away one-fourth and reserving the balance we expect the price to quadruple within a year, as many will undoubtedly settle and improve.

This land will be allotted as above and received, IN A FAIR AND EQUITABLE MANNER, and with no preferences. Each applicant receives a Warranty Deed Option Bond, numbered and recorded, which entitles the holder to one of the Lots or Tracts above specified.

#### NO CHARGE FOR THE LAND.

No charge whatever is made for the Land, but we require all to send \$25.00 Postal Note or Cash, or \$10.00 in stamps, when application is sent. This amount is a pro-rata charge to help pay for this advertisement, postage, and also a handsomely illustrated book on Florida, its climate, soil, orange culture, etc., and is in no sense a charge for the deed bond or the land itself. You are not obligated to have the deed executed if the location or land does not suit you, and the \$25.00 expense will be returned in such case.

#### LEROY, MARION COUNTY, FLORIDA,

Has been rightly named by the press as

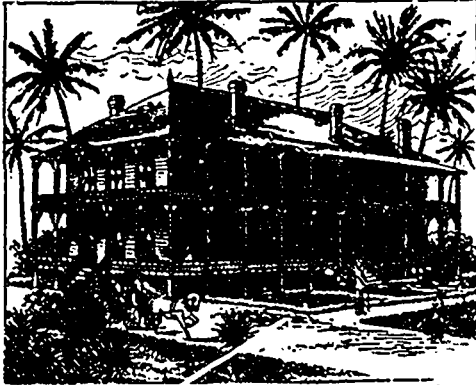
#### FLORIDA'S PHENOMENAL CITY.

All our lands are located in and around LEROY, MARION CO., FLORIDA, ten miles from Ocala, the county seat, a thriving city of 5,000 inhabitants. It is all high, dry, rolling pine land, free from swamps or malarial, and one of the healthiest locations in Florida. THE GULF COAST RAILROAD AND GULF RAILROAD runs through it. Splendid

Address CO-OPERATIVE LAND AND IMPROVEMENT COMPANY, 45 Broadway, New York City, N. Y.

#### ENDORSEMENT.

Ocala, Fla., Dec. 10, 1887.—We, the undersigned, hereby certify that the land in and around Leroy, Marion County, Florida, is high, dry, rolling pine land, well located on the S. S., O. & G. R. R., of fair quality, and will compare favorably with the average pine lands of Florida, and bids fair to enhance in value. J. B. MOREHEAD, County Surveyor; H. W. LONG, County Commissioner; F. E. HARRIS, Editor Ocala Banner; T. W. HARRIS, Editor Free Press; A. P. MANN, Jr., Gen'l Manager S. S., O. & G. R. R.; JAMES L. WHITE, Ex-County Surveyor, and others. **CUT THIS OUT.**



The Ocala Banner says: "The lands are high, dry and rolling, and LEROY is one of the finest and healthiest locations in the State, and all that the Company claims for it is strictly within the bounds of facts."

Mr. A. P. Mann, Jr., General Manager of the Silver Springs, Ocala and Gulf Rail Road, in speaking of this land, says:

"It is all high, dry, rolling and fertile pine land, and there is no more healthy location in Florida. The surrounding country, as well as this land, is especially adapted to ORANGE and VEGETABLE culture, as well to up and rice, long staple cotton, corn, and choice varieties of tobacco."

#### CLIMATE AND HEALTH.

The climate of this section is unsurpassed by any in the world, not even excepting Italy. Cool, balmy, delightful breezes a constantly blowing between the Gulf and the Atlantic. This immediate neighborhood is well adapted for a Summer as well as a Winter resort.

**MONEY LOANED.** This Company is prepared to loan money upon property secured from the Company giving five years to pay for same. Plans of houses will be furnished free upon application to those wishing to build.

**LOCAL CLUBS.** To those wishing to form clubs in their town we will send five warranty deed option bonds for \$1.00; ten for \$2.00; fifteen for \$3.00; twenty-five for \$5.00; fifty for \$8.00; fifty for \$10.00. No more than fifty will be sent to any one club.

**WRITE TO-DAY.** Before free property is all taken, send in a club, and have your friends interested with you. If free property is all taken when your order is received, money will be returned. Send money by Postal Note, Money Order, or Registered Letter.

14/349

#### DR. BAXTER, M.R.C.S., Edinburgh.

Special treatment for Chronic Diseases, Constitutional ailments of long standing, Diseases of the Heart, Kidneys, Bladder, Genito-urinary Organs, Piles and Diseases of the Skin, Impotence and the Nervous Exhaustion and General Debility which follow in the train of errors and excesses, CURED. Extensive experience in Hospital and Asylums warrants successful treatment. Remember that it is better to place your confidence in the

Imperfect Knowledge of the Physician rather than the Perfect Ignorance of the Quack. Those unable to call for examination can report their own case, and to assist send for list of questions. Office—Corner QUEEN AND McCAUL STS., TORONTO. JAME

#### ON 30 DAYS' TRIAL

**EGGLESTON'S ELASTIC TRUSS** This is a Pad different from all others, is cup shape, with Bell adjusting, Ballin-center, adapted itself to all positions of the body, while the ball in the cup presses back the intestines just as a person does with the finger. With tight pressure the contents lie in night, and a radical cure certain. It is easy, durable and cheap. Sent by mail. Circulars free. **EGGLESTON TRUSS CO., Chicago, Ill.**

**ECONOMICAL WOMEN** should have one or both of these aids to cheap comfort,

#### THIS DOWSWELL WASHER

**STANDARD WRINGER** save the Clothes, the Health, Time, Money Sold by Hardware Dealers, or direct from Standard Mfg Co. 34 James St., Hamilton.



## BAIN WAGON CO'S



THIS Cut represents the most convenient Wagon ever put on the farm, because it is suitable for all kinds of work, and always ready, no change being necessary. This wagon was invented and first introduced in Mich., U.S., and is very extensively used by leading farmers in the United States. Every wagon made and sold by us in Canada is giving entire satisfaction. For further particulars and prices address

**BAIN WAGON CO'Y.** Woodstock, Ont.

### BAIN WAGON CO., WOODSTOCK, ONT.

Don't forget that if you don't improve your stock, you will go to the wall.

Don't forget that the BAIN WAGON will help you to improve and care for your stock.

57/134

11/227

1/5

BREEDERS' DIRECTORY

Cards under this head insert for one year at the rate of \$1.50 per line when not exceeding five lines. No card accepted under two lines nor less than six months.

Parties desiring to purchase Live-Stock will find in this Directory the names of the most reliable Breeders in Canada.

HORSES

DAVID WATSON, P. O. Box 10, Toronto, Ont., breeder of pure-bred Clydesdale horses and Shropshire sheep. Stock for sale.

G. BALLANTYNE, Stratford, Breeder of Percherons, Short-horn, Shropshire and Berkshire. Stock for Sale. (decme

A. & J. BELL, Athelstane P. O., P. O., Importers and breeders of recorded Clydesdale horses and Shropshire cattle, Cotswold sheep and Berkshire pigs. Stock for sale. 77

R. HAIR, Toronto, Ont., Lanark Co., breeder of pure-bred Clydesdale horses, Shorthorn cattle, Shropshire sheep and Berkshire pigs. Young stock for sale. Prices right.

THOS. BLANCHARD, Appleton, Ont., breeder of Shire horses, Shorthorn cattle and Leicester sheep. 72

R. CARLSON & CO., Clyde, Importers and registered breeders of Shire horses. Stock for sale. Pentridge Farm, Cannington, Ont. 76

E. W. & G. CHARLTON, Dundas, Ont., Importers and breeders of pedigree Clydesdale and Coach horses. 72

W. M. CRAWFORD, Upper Springs Farm, Malvern, Ont., breeder of pedigree Clydesdale horses, pure pedigree Ayrshire cattle and Cotswold sheep. 71

GEO. E. DYER & SON, Brighton, Farm, Sutton, Que., Breeder of Clydesdale horses and Berkshire pigs. Stock always on hand for sale. 68

THOS. GOOD, Richmond, O., Ont., importer and breeder of registered Clydesdale horses, Shorthorn cattle, Cotswold and Southdown sheep. Stock for sale. 76

JOHN L. HOWARD, Sutton West, Ont., breeder of registered Clydesdale and pure Shorthorn cattle. 72

W. L. HUMPHINSON, Napaine, Ont., importer of registered Ohio, Cleveland Bay and Yorkshire Coach horses. Stock for sale.

JAS. LEAK & BROS., Taunton P. O., Oshawa Station, Importers of Clydesdale horses, Shorthorn cattle, Shropshire sheep and Berkshire pigs. Seed grain a specialty.

JAMES MOULLE, farmer and breeder of saddle and Driving horses, Highland, Exmoor and Welsh Ponies. Stock broken and ready. Prices reasonable. Chesterville, P. O., Dundas Co., Ont. 78

J. D. ONEIL, V.S., London, Que., importer and breeder of Clydesdales, Canadian Straight and Standard Roast Stallions. Stock always on hand for sale.

J. W. REID, Marys, Ont., importer and breeder of pedigree Clydesdale horses, Shorthorn cattle and Shropshire Down sheep. Stock for sale. 72

THOMAS R. SMITH, New Hamburg, Ont., importer and breeder of pedigree Clydesdale horses and Shropshire Down sheep. Stock for sale.

WILLIAM SMITH, Columbus, Ont., breeder and importer of Clydesdale horses and High Grade cattle.

MESSRS. SNIDER & EDMONSON, Brantford, Ont., Importers of Clydesdale, Suffolk, Cleveland Bay and Coach horses. English and Cleveland Bay, Clyde and Suffolk Punch Stallions on hand for sale. 74

H. H. SPENCER, Brooklin, Ont., importer and breeder of Clydesdale, French Shorthorns, choice recorded Shropshires, and Berkshires. 77

THOMAS TAYLOR, Harwich P. O., Ont., breeder and importer of recorded Clydesdale, Cleveland Bay horses. Stock for sale.

J. WALTER WATSON, Waterville, Que., Breeder of Pure-bred Clydesdale Horses and Hereford Cattle.

SHORTHORNS

DAN ALBERTSON, Toronto, Ont., breeder of pure-bred Shorthorn cattle and Oxford Down sheep. Stock for sale. P. O. Box 10, Toronto, Ont.

THOS. BALLANTYNE & SON, "Wendpath Farm," Stratford, Ont., Importers and breeders of Scotch Shorthorn cattle and Shropshire sheep. Herd headed by the imported Cruickshank bull Prince Royal. 76

J. E. BRETHOUR, "Oak Lodge," Huron, Ont., breeder of Shorthorns and Berkshire pigs. Imported Scotch bull The Provost at head of herd.

A. BROCKIE, "Fergus Farm," breeder of Scotch Shorthorns and Oxford Down sheep. Stock for sale. 72

JAMES BROWN, Thosd (Wellington Co.) Ont., breeder of pure-bred Shorthorn cattle. The "Black" ramrath heads the herd. Stock for sale. 69

ALEX. BURNS, "Maple Lake Farm," Rockwood, Ont., A breeder of Shorthorn cattle. Young stock for sale. 58

J. B. CARPENTIER, Simcoe P. O., Ont., breeder of registered Shorthorn cattle and Shropshire sheep. 78

JOHN CURRIE, Telegraph and P. O., Woodstock, Ont., breeder of Shorthorn cattle, Berkshire pigs and Leicester sheep. Stock always for sale. Four miles from Rockwood, G.T.R. 77

H. J. DAVIS, "Maplewood Stock Farm," box 200, Woodstock, Ont., Railway Station, G.T.R. and C.P.R., Breeder of Shorthorn cattle, English Berkshires, reg'd pedigrees. Stock for sale and shipped to order. Satisfaction guaranteed. 72

JAMES I. DAVIDSON, Balsam P. O., Ont., importer and breeder of Clydesdale horses and Shropshire cattle from the herd of A. Cruickshank, Esq., Sittytton, Scotland. Stock for sale.

W. DAWSON & SON, Littlewood Farm, Victoria P. O., Co. York, Ont., breeders of Shorthorn cattle and Southdown sheep. Several young animals for sale. 77

W. M. DICKSON, Hill View Farm, Milford, Ont., breeder of Shorthorn cattle, Oxford Down sheep and Berkshire pigs. Young stock for sale. 69

W. M. DONALDSON, Huntingford, South Zorra P. O., Ont., breeder of Shorthorns and Shropshire Down sheep. 76

W. M. DOUGLAS, Caledonia, Ont., breeder of Shorthorn cattle. Young stock for sale at all times. 67

W. EDWARDS & CO., Rockland, Ont., breeders of Shropshire sheep. All entered in Dominion Herd Book. Stock for sale at all times. 75

G. GRAHAM BROS., Belvedere Stock Farm, Craig, Ont., breeders of Shorthorn cattle. Young bulls, hogs and heifers always for sale. All entered in Dominion Herd Book. 74

A. HERBERT GAR, "Bellevue Farm," Plantagenet, Ont., breeder of Shorthorn cattle (Cruickshank bull "Soldier Boy" at head of herd), registered and Berkshires. Stock for sale. Prices to suit the times. 72

JOHN HARRISON, Owen Sound, Ont., breeder of Short Horn and Shropshire Down sheep. The lot won 6 prizes at the Toronto Industrial and Provincial, 1886. 76

W. H. HAWKAW, Glanworth P. O., Ont., breeder of Shorthorn cattle and pure-bred Shropshire sheep.

SIMEON LEMON, Poplar Lodge, Cayuga, Ont., breeder of pure-bred Shorthorn cattle. Oxford Down, Shropshire sheep, Berkshire and Suffolk pigs. Stock for sale. 72

THOS. MCKAY, "Woodbine Farm," Richwood P. O., Ont., breeder of Shropshire cattle. Victor Hugo Ingram at head of herd. Young stock for sale. 74

W. MAJOR & SON, Whitesale, Ont., breeders and importers of Shorthorn cattle, Clydesdale horses, Shropshire sheep. Stock for sale. 76

MARCO S. MERRITT, Smithville, Ont., breeder of pure pedigree Shorthorns of splendid milking qualities. 73

A. ALEXANDER NORRIE, Paisley, Ont., breeder of Shorthorn cattle. The pure Cruickshank bull "Victor" at head of herd. Stock for sale. 72

J. P. PHIN, Hespeler, Ont., breeder and importer of Short Horn and Shropshire Down sheep. Sheep recorded in American Record. Stock for sale.

SPRING HILL FARM, Walkerton, Ont., Richard Rivers & Son, Importers, breeders and dealers in Shorthorn and High Grade cattle, Hildesher and Southdown sheep and Berkshire swine. Clean and Grain a specialty.

J. B. RIDD, Rothsay, Ont., breeder of Shorthorn cattle, Leicester sheep and Berkshire pigs. High bred Booth bull, Waterloo Solway, at head of herd. Stock for sale.

W. M. SHIEK, "Glen Park Farm," Sunderland P. O., Ont., breeder of Shorthorn cattle. Stock for sale.

C. S. SMITH, box 184, Tilsonburg, breeder of Durham cattle, registered Berkshire pigs and Shropshire sheep.

HENRY SMITH & SONS, Chatham, Ont., breeder of pure Shorthorn cattle. Young stock for sale. 73

W. M. TEMPIER, breeder of pure-bred Shorthorn cattle and Berkshire pigs. Wood Lane Farm, Cayuga P. O., Ont. Telegraph Office and R. R. Station, Cayuga, G.T.R. Young stock for sale. 73

GEO. T. THOMSON, Bright, Ont., breeder of pure Scotch Shorthorns and Southdown sheep. Stock for sale. 74

GEO. THOMSON, Alton, Ont., breeder and importer of Shorthorns, Alton station, C. V. R. Stock for sale.

JAS. TOLTON, Warran, Ont., breeder of Shorthorn cattle and Oxford Down sheep. Stock for sale.

THOS. TURNER & SON, "Maple Grove," Oshawa, Ont., breeder of Shorthorn cattle, Clydesdale horses and Leicester sheep. All kinds of stock for sale. Cargill's, G.T.R. 78

JOSEPH WATSON, Greenbank, Ont., breeder of Shorthorn and high grade longhorn cattle. Imported bull Vice-President at head of herd. Young stock for sale.

WILLIAM WHITEHEAD, "Maple," Ont., breeder of Short-horn cattle, English pointer and breeder of Leicester sheep. Stock for sale. 74

A. ALEXANDER WOOD, St. Marys, Ont., breeder of Short-horn cattle and Clydesdale horses. Stock for sale. 78

HEREFORDS

R. J. GAYNE, "Springfield Farm," Oshawa, Ont., Breeder and importer of pure HEREFORD CATTLE. Imported stock for sale. 71

F. W. STONE, Moreton 104, Guelph, Ont., Importer and breeder of Shorthorn and Hereford cattle, Cotswold sheep, Berkshire and Yorkshire pigs, and Suffolk horses.

DEVONS

SAMUEL WATSON, "Long," breeder of Devon cattle, Leicester sheep and carriage horses. Young stock for sale.

POLLED CATTLE

A. ANDREW GILMORE, Oak Dale Farm, Hantsdon, Que., importer and breeder of Aberdeen Angus cattle, Oxford Down sheep and Yorkshire pigs. Stock at all times for sale. 77

W. M. KOWAL, Owen Sound, Ont., Canada, breeder of Cotswold sheep. Choice imported and home-bred animals of both sexes for sale. Catalogues ready. 73

THOMAS McCRAE, Janefield, Guelph, Canada, importer and breeder of Galloway and Polled Angus cattle, Clydesdale horses and Cotswold sheep. Choice animals for sale.

AYRSHIRES

W. C. HARRIS & CO., North Nation Mills, P. O., breeder of pure-bred Ayrshire cattle and Berkshire pigs. Young stock for sale. 77

A. GERRARD, Hamilton, Ont., breeder of pure Ayrshires. Bull calves sold young and cheap. 72

T. GUMBY, "Sydenham Farm," Oshawa, Ont., breeder of Ayrshire cattle, Southdown and Leicester sheep. 76

THOMAS IRVING, Montreal, importer and breeder of Ayrshire cattle, Berkshire pigs and Cleveland horses. 76

J. McCOY, "Berkshire," Ont., breeder of Ayrshire cattle, Toulouse hogs and colored and Silver-Grey Dorkings.

NICHOL BROS., "Plantagenet," Ont., breeder and importer of Ayrshire Cattle, Leicester Sheep and Clydesdale Horses. Ochr.

W. M. & L. SMITH, Fairfield Plains, Ont., breeder of Ayrshire cattle, American Merino sheep and Poland China pigs. Also ready stock for sale.

JOSEPH YULL, Carleton Place, Ont., breeder of Ayrshire Cattle, Shropshire Downs and Berkshire swine. 72

JERSEYS

A. J. C. H. R. Jersey, all ages. Moderate price. Write for what you want.

ROBT. REESOR, Jersey Farm, Cedar Co., Markham, Ont., breeder of Jersey cattle. Pure herd in Atollie 17219, a pure St. Helier bull. Young stock for sale. 73

MESSRS. G. SMITH & SON, Grimsby Ont., breeders and importers of pure Jersey and Welsh ponies of choicest quality and breeding. Stock always for sale at reasonable prices. Correspondence solicited. 82

HOLSTEINS

MAPLE GROVE STOCK FARM, Cassel P. O., Oxford County, Ont., H. & W. F. Bolton, Importers and breeders of pure-bred Holstein-Friesian cattle. Stock for sale. R. R. Station, Tavistock on G. T. R. 72

E. PANNAUER, "Fairview Farm," Hespeler P. O., Ont., breeder of Holstein-Friesian cattle. Stock for sale. 76

A. & I. RICE, "Carnie's Crossing," P. O., Oshawa, Ont., Importers and breeders of Holstein-Friesian cattle, Descendants of the famous families, Friesland, Netherland, Promotor, Aaggie, and Texal, for sale. Spa.

J. & N. LANGSTON, "Kingsdown," Que., importers and breeders of Holstein-Friesian cattle. Stock for sale.

SWINE

S. COXWORTH, Gilemont, Ont., breeder and shirer of pure Berkshire hogs. Young stock for sale. Registered pedigrees. Wide of prices.

ISAAC M. CROSS, Bond Head, Ont., breeder and dealer in Berkshire hogs and Southdown sheep. Stock for sale at the lowest living prices. 74

W. M. DAVIES & SON, Kinocroft, Markham, importers and breeders of improved large Yorkshire swine and Guernsey cattle.

# BREEDERS DIRECTORY

(Cards not more than five lines, \$1.00 per line per annum.)

## SWINE

**RICHARD WILSON**, Wouchela, Ont., breeder of pure Berkshires young stock for sale. Registered Pedigree. Price \$10.00.

**R. FORSLY & SON**, Summersville, Ont., breeders and importers of pure Suffolk, Yorkshire and Hampshire pigs. Stock at all times on hand for sale.

**JOS. PHILIPSPERSON**, Pine Grove Farm, Credit, Ont., importers of Essex, Suffolk and Yorkshire pigs. All correspondence to receive prompt attention.

**G. O. GREEN**, breeder of pure Berkshires. Young Fairview, Ont., stock for sale. Registered Pedigree.

**R. & J. O'NEILL**, Anaster, Ont., importers and breeders of Old English and Chester Whites. Pigs for sale.

**E. M. FARVIS**, Ontario, Ont., breeder of pure and improved Yorkshires. All pedigreed correspondence promptly attended to. Write for terms.

**J. & L. M. BROWN**, Black P.O., breeders of pure Yorkshires, Lot China, Suffolk and Essex Pigs, all pedigreed. All kinds of fancy poultry. Open.

**E. L. MARTIN**, Natuside Farm, Canada, breeder of Registered Berkshires, Shropshire and Merino Sheep and Silver Grey Hounds. None but first class stock.

**L. E. PATTISON**, Hill, Ont., breeder of registered, improved, pure White pigs. Pedigree.

**T. L. SALTER**, Greenbank, Ont., breeder of registered Berkshires. Stock for sale from import. Pure sows, jam.

**W. W. BROWN**, White Swan, Ont., breeder of pure and improved White swine. Pigs at all times on hand. Satisfaction guaranteed. Write for prices.

**JOHN SNELLSONS**, Importers and breeders of Short Horn P.O., Education, Ont., bred Berkshires, hogs and Cotswold R. B. Stations, Brampton, Ont., for sale; shipped to on G. I. R. and C. V. R. on the G. I. R. and C. V. R. Write for prices.

**J. G. SNELLSON**, Education, Ont., have for sale Berkshires, Shropshire and Merino sheep. Write for prices. Station, Brampton, Ont., and G. I. R.

**R. H. TALLEY**, Pinchurst Farm, Ontario, breeder of Poland China pigs. Stock for sale.

## SHEEP

**HENRY ARKELL**, "Farnham Farm," Adell P. O., Ont., will have a fine lot of purebred cattle, Oxford Down and Cotswold sheep, and Berkshire pigs, bred from my own importations. All registered stock. Write for prices. Station, G. I. R., C. P. R., Adell.

**PETER W. LITTLE**, Ontario, breeder of pure and improved Berkshire, Shropshire and Merino sheep. Write for prices. Station, Wilton, Ont., and G. I. R., Wilton, T. R.

**ROCK BAILY**, Ontario, breeder of pure and improved Berkshire, Shropshire and Merino sheep. Largest flock in Canada. A. J. C. O. P. O. Stock for sale.

**W. L. BROWN**, Wilton, Ontario, breeder of pure and improved Berkshire, Shropshire and Merino sheep. Stock for sale.

**JOHN CAMPBELL**, Wilton, Ontario, breeder of pure and improved Berkshire, Shropshire and Merino sheep. Stock for sale.

**W. R. COCKFIELD**, Wilton, Ontario, breeder of pure and improved Berkshire, Shropshire and Merino sheep. Stock for sale.

**H. CRAWFORD & SONS**, Canada, Ontario, importers and breeders of Cotswold sheep, Hampshire and Berkshire Swine. Stock for sale.

**G. & H. H. HARRISON**, Stock Farm, New Sarum, Ont., breeders of pure and improved Merino sheep. Stock for sale.

**ANDREW EASTON**, Bright P. O., Ontario, breeder of pure and improved Berkshire, Shropshire and Merino sheep. Stock for sale.

**SMITH IVANS**, Grand P. O., Ontario, breeder of pure and improved Berkshire, Shropshire and Merino sheep. Stock for sale.

**C. T. GARDNER**, Ontario, breeder of pure Cotswolds and Berkshires from Imp. sows. Young stock for sale. Registered Pedigrees.

**D. G. HANMLER & SONS**, Mount Vernon, Ont., breeders of registered Shropshire and Berkshire sheep. Stock for sale.

**JOHN JACKSON & SONS**, Alton, Ont., importers and breeders of registered Berkshire sheep. Over 1000 prizes in 10 years.

**KAINS BROS.**, Byron, Ont., breeders of Hampshire, Shropshire sheep and Colored Dorking chickens.

**L. LAIDLAW & SONS**, Wilton Grove P. O., Ont., breeders and importers of pure Cotswold sheep. Stock for sale.

**WM. OLIVER**, Avonbank, Ont., breeder and importer of pure Lincoln sheep. Flock established for 100 years.

**JOHN YOUNG**, Ontario, breeder of pure and improved Berkshire, Shropshire and Merino sheep. Stock for sale.

## BEEES

**G. A. DEAN**, Ontario, breeder of Italian and Buckeye bees. Always some for sale.

## POULTRY

**W. J. BELL**, Ontario, importer and breeder of many prize winners at all fairs. Large adult in this flock for sale.

**BLACK MINORCAS**, Wyandottes, Plymouth Rocks and Cuckoo. Eggs, 25¢ per pair. Satisfaction guaranteed. **W. L. COLLINS**, Ontario.

**R. E. GRANT**, Ontario, breeder of White Wyandottes, R. C. Bantams and other fancy breeds.

**SILVER WYANDOTTES**, Old English Game, Gamecock, Spang and Fox Toyer Dicks. Address: 1000 York St., Rideau Street, Ontario.

## MILKING TUBES

**PULLIN'S** SLIVER MILKING TUBES. See & order. Hand milking tubes, just of 5¢ each. 25¢ a pair. 178 North St. Philadelphia, Pa. Can free.

## LIVE-STOCK AUCTIONEERS

**GEORGE ANDREW O'CONNOR**, Ontario, breeder of pure and improved stock. Pedigreed stock available. Auction sales in any part of Canada and United States. Carefully managed. Pedigreed stock available.

**E. V. M. GIBSON**, Ontario, breeder of pure and improved Short Horns a specialty.

## Halliday Standard Windmills.

For Supplying Constantly Pure and Fresh Water for the following purposes, viz:

- Pumping Water to Hotels, Colleges, Railways, etc.
- Farm Buildings
- Village Residences
- Public Institutions
- Gardens
- Green Houses
- Town and Village Waterworks



These celebrated Windmills are made from one man to forty horse power. They are perfectly controllable in gales and uniform in speed.

Also manufacturers of FIELD GRINDERS, HAYING TOOLS, IRON and WOOD PUMPS, and a full line of Railway, Town, Farm and Ornamental Water Supply Materials. Catalogue and Price Lists, with references, mailed free on application to

**ONTARIO PUMP CO.,**  
TORONTO, ONT., CANADA.

Agents Wanted to Sell Nursery Stock  
**CONVILLE NURSERY**, Largest in Canada  
Mymie. STONE & WELLINGTON, Toronto, Ont.

# SALESMEN WANTED!

To canvass for the sale of NURSERY STOCK. Steady employment guaranteed.

**SALARY AND EXPENSES PAID.**  
Apply at once, stating age. (Refer to this paper.)  
**CHASE BROTHERS CO.,**  
COLBORNE, ONT.

If you wish to become known as a stock-breeder, advertise in the Live Stock Journal.

The L.S.J. is read by 10,000 of the best farmers in Canada. Remember that when advertising.

## ONTARIO VETERINARY COLLEGE

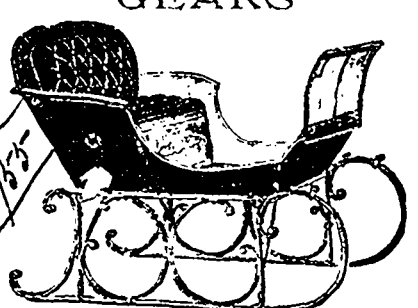
Patrons: Government of Canada and Lieutenant Governor of Ontario. The most successful Veterinary Institution in America. All students are teachers. Classes begin in October. Fees, \$200 per year. Apply to the Principal, **PROF. SMITH, V.R., EDIN.,** TORONTO, CANADA.

**AWARDED SILVER MEDAL AT TORONTO INDUSTRIAL, 1888 and 1889.**



Send for circular to **REAMER CO.,** Box 552, Brampton, Ont.

## ARMSTRONG'S STEEL CUTTER GEARS



**PORTLAND CUTTER R. JOMY, STYLISH, LIGHT.**  
UNBREAKABLE in far use. Always where ever introduced. Circulars describing mailed on application. Ask your Carriage Makers for them, or write direct for particulars.  
**J. B. ARMSTRONG MFG. CO.,** Guelph, Canada.



These Ready-Mixed Paints are no chemical combination but are simply old-fashioned paints. They are guaranteed to give better results than any other paint.

**TORONTO PROPERTY**  
Pays good interest and is continually increasing in value.  
It can be exchanged for arm property, if unencumbered, for productive Toronto Real Estate. Clients interests carefully guarded. Address  
**J. B. BOUSTEAD & CO.,** 12 Adelaide St. E. Toronto.  
A "Breeder's Card" will cost you only \$3 for two lines, or \$4 for four lines.