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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE AND SUCCEED
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* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRC *

VOL. XXXIV. LONDON, ONTARIO.

AUGUST 5, 1899.

WINNIPEG, MANITOBA.

33

Jerry Paisley, Pincher Creek,

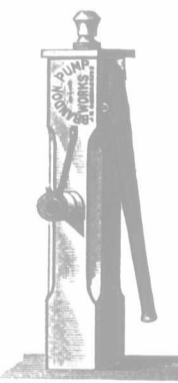
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CONTENTS OF THIS NUMBER.

	PAGE.
No. 1 HARD	407
MR. JOHN DEARNESS	407
CEMENT CONCRETE STRUCTURES	407
TUBERCULOSIS DISCUSSED IN PARLIAMENT	408
ROYAL JUDGE (ILLUSTRATION)	408
FARMERS' INSTITUTES	408
DATES OF FAIRS	408
WINNIPEG INDUSTRIAL EXHIBITION	409
HARD SERIES (ILLUSTRATION)	409
ARTFUL BELLE 21ST (ILLUSTRATION)	409
THE "FARMER'S ADVOCATE" AT THE TORONTO INDUSTRIAL	409
THE BRANDON FAIR	410
BRAMPTON MONARCH (ILLUSTRATION)	410
COLLEGE BRAVURA (ILLUSTRATION)	410
HACKNEY STALLION, GRAND CADET 4797 (ILLUSTRATION)	411
CAN BROME GRASS BE SOWN WITH WHEAT?	411
HEREFORDS AT HOME	411
ABERDEEN-ANGUS BULL, PRINCE ITO 12869 (ILLUSTRATION)	411
ONE JUDGE OR MORE	412
A GROUP OF THOROUGHBREDS (ILLUSTRATION)	412
OUR SCOTTISH LETTER	412
LADY ELLEN AND THE GEM PRINCE (ILLUSTRATION)	412
AYRSHIRE COWS (ILLUSTRATION)	413
SUIT OF INTEREST TO FARMERS	413
AUSTRALIAN FROZEN MEAT TRADE	413
MILK FEVER CASE WRONGLY TREATED—COW-KILLED BY DRENCHING	413
ARTIFICIAL IMPREGNATION	413
SPOTLESS OF INGLESIDE AND ISABEL (ILLUSTRATION)	413
LARGER CLYDESDALES WANTED	414
RAISING FOAL ON COW'S MILK—CURE FOR SPRAIN	414
A NEW DAIRY STOCK BARN IN COURSE OF ERECTION (ILLUSTRATED)	414
CLEANLINESS IN DAIRYING	414
TO SECURE BETTER MILK FROM CARELESS PATRONS	414
GOOD BUTTER	415
THE PROFESSORS HUNTING GRASSHOPPERS (ILLUSTRATION)	415
BROODER HOUSE (ILLUSTRATED)	415
PURE CULTURE STARTERS	415
QUESTIONS AND ANSWERS:—VETERINARY: LAMINITIS (FOUNDER); A PECULIAR CASE; PROBABLY RHEUMATISM; PIGS WITH SKIN ERUPTION	416
MISCELLANEOUS: NOTICE: SICK DUCKS; PRACTICAL POINTERS ABOUT BEE FRAMES; FITTING A BULL FOR SHOW; CULTI- VATION AND PRUNING OF RASPBERRIES; LEAKING WATER TANK—ON-EYED DAISY; STRAYED LICE; UNHEALTHY PEACH TREES—YELLOW; VIRGIN HEIFER GIVING MILK	416
CHATTY STOCK LETTER FROM CHICAGO	417
MONTREAL MARKETS	417
BRITISH MARKETS	417
HOME MAGAZINE.	
FAMILY CIRCLE	418
THE CHILDREN'S CORNER	419
"AN EAVESDROPPER" (ILLUSTRATION)	419
THE QUIET HOUR	420
UNCLE TOM'S DEPARTMENT	420
PUZZLES	420
GOSSIP	423, 424, 425, 426
WINNIPEG INDUSTRIAL PRIZE LIST	421, 422
NOTICES	423, 424, 425
ADVERTISEMENTS	405 and 406, 421 to 428

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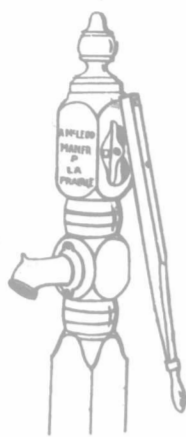
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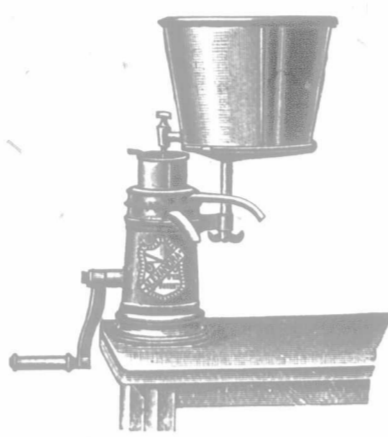
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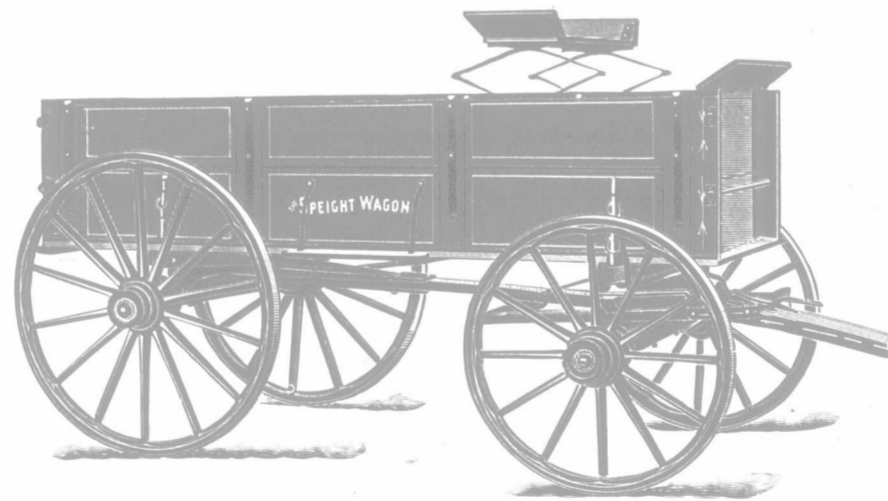
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FARMER'S ADVOCATE

AND HOME MAGAZINE

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

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

VOL. XXXIV.

LONDON, ONT., AND WINNIPEG, MAN., AUGUST 5, 1899.

No. 483

No. 1 Hard.

In 1882 I could not find any wheat for seed that pleased me, and I prevailed on my friend and neighbor, Mr. Hartney, to import a carload of the best Red Fyfe that Minnesota could produce. It was bought through the Department of Agriculture, and cost \$1.40 per bushel laid down in Winnipeg. The quality was very fine, and the only weed seed in it was a little purple cockle. Out of it I received enough for my wants. In 1884 I had the finest wheat I have ever grown; the grain was very large and even, and so clear that it looked as if it was almost transparent. Mr. Hartney exhibited that year at the first Provincial exhibition, which was held at Portage la Prairie, and captured all the first prizes for Red Fyfe, amounting to \$177. The following year I exhibited at the Provincial at St. Boniface, and I got all the first prizes. One of the judges, Capt. Wm. Clarke, the Government Grain Inspector, said it was a case of "the pup beating the father." The following year I again exhibited at St. Boniface, and my wheat weighed more than 67½ pounds to the bushel. The Inspector stated it was the heaviest wheat he had weighed in the Province up till that time. The next heaviest wheat at the show weighed 64½ pounds. I did not exhibit again at the Provincial till last year, when I again won all the first prizes for Red Fyfe. In the interval I exhibited at our local shows, and I received a fair share of the honors that were going. Mr. Hartney and I have medals, cups and diplomas from the Colonial Exhibition in London, and from points on the continent of Europe, such as Antwerp, where our wheat was exhibited in competition open to the world, and it received the highest awards. At the present time the Hartney wheat is being used by the Government and the C. P. R. for emigration advertising purposes. Many prizes for Red Fyfe at the Provincial have come to Souris, Deloraine, Melita, and Virden, and I think the wheat exhibited was, almost without exception, from the produce of the original carload above referred to. For the first two years our wheat was all sold for seed, and was distributed along the Souris Valley from Plum Creek to the Oxton.

Had we been as fortunate in this district with our oats, I venture to say noxious weeds would have been almost unknown in this locality. Unfortunately, before we grew any oats our supplies were partly drawn from the Valley of the Red River, and a wolf was introduced unawares. But prosecution has been rigorous, and extermination is almost within sight. About eight years ago a carload of wheat was brought into this district from Regina, and I wish it had gone to the bottom of the sea. I am Weed Inspector. Notwithstanding these drawbacks, the wheat in this district is the purest, and the Municipality of Cameron is the cleanest, in the Province. My soil is a dark loam, neither clayey nor sandy, and is a fair sample of the district. I have never changed my seed. No other wheat for seed has ever come unto my farm. I have never at any time had any smut in it. Since bluestone was introduced I have used it. I know the value of it. I run no risks. Almost every year I have a few acres of backsetting, and I aim at taking my seed from this land. Here, as in other parts of the Province, we have suffered from frost, hail, drouth and blight. In these years I made a point to lay aside a few bushels of my best wheat for seed. I usually have a little wheat cleaned up for the show; this I keep for seed; one bushel of it to the acre, carefully put in on backsetting or summer-fallow, produces a heavy crop. I am a believer in selection. My wheat is pedigreed, and is purer and as vigorous to-day as it was sixteen years ago. Wheat can be bred pure and graded up as well as Shorthorn cattle. For a heavy and clean crop I like wheat after peas, especially if the peas have been plowed under. For grain of fine quality, smooth-skinned, clear and plump, I like wheat after timothy. I have taken good care not to spoil the texture or exhaust the fertility of the soil by too much cropping. This season the rainfall has been ample, the crop is very promising, and the soil seems as fertile as when the land was new. Notwithstanding the difference in the freight rates, it is a common occurrence for us at Hartney to receive more for our No. 1 hard than they do at Portage la Prairie.

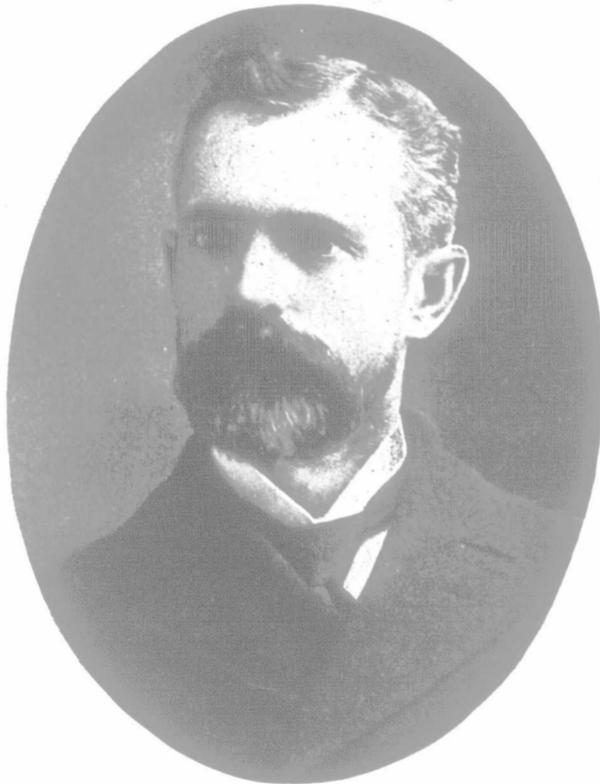
Our friend, Mr. Elder, says it's facts, not theories you want. In this letter I have been my own trumpeter, and blown my own horn, and the apology I offer for doing so is that I am better posted in the history of this wheat than any other man. Honor to whom honor is due. Western Manitoba rests under a big debt of gratitude to Mr. Hartney—say that thou owest.

Cameron Municipality, Man. WM. LAUGHLAND.

Mr. John Dearness.

We take pleasure in adorning this page with a lifelike engraving of Mr. John Dearness, for some years past Inspector of Public Schools for East Middlesex, in the Province of Ontario. The portrait will be appreciated by our readers everywhere, as all are familiar with the admirable contributions from his pen upon agricultural education and other subjects which have from time to time appeared in the FARMER'S ADVOCATE. He has just been appointed Vice-Principal of the new Provincial Normal School for the training of teachers, at London, Ont., which will be opened at the beginning of the coming year.

Mr. Dearness was born in Hamilton, Ont., May, 1852, of Scotch parentage, his parents being John and Jane (Linklater) Dearness. His earlier years were spent upon farms in Perth and Middlesex Counties, but having begun the acquisition of an education with marked success, he entered upon the teaching profession in 1870, first in a rural public school and subsequently as principal of the Lucan and Strathroy public schools, and still later on the staff of the Strathroy High School. In the



MR. JOHN DEARNESS.

fall of 1874 he was appointed Public School Inspector for East Middlesex, a position in which he has rendered lasting service to the cause of public school education, his general administration being also uniformly marked by discernment and good judgment, enthusiasm and industry. His addresses before teachers' institutes and associations, and the ability with which he conducted the editorship of the *Ontario Teacher*, at the time the only educational journal in the Province, further enhanced his reputation. He was one of the editors of the *Royal Canadian Reader*, and for several years on the Central Committee, under the Provincial Department of Education, for the examination of teachers. He is an honorary member of the Montreal Historical Society, has been Lecturer on Botany and Zoology in the medical department of the Western University, and twice President of the Ontario Entomological Society. In fact, for several years he devoted considerable time to the practical study of natural science, particularly botany, entomology, and mycology. He has made probably the largest collection of fungi in Canada. It contains several hundred species new to science. It was in recognition of his attainments in this department of knowledge that he was recently selected by the Ontario Government as a member of the Royal Commission to investigate the subject of the troublesome San José scale and the procedure taken to overcome its ravages upon the fruit trees of the Province. One of the most unassuming of men, the extent and variety of his attainments are a constant surprise to those who enjoy his personal acquaintance. Apart from his eminent general qualifications as an educator, he is one of the few educationists of the day who

have grasped the true bearing and the importance of agricultural education. As our readers are aware, this subject is just being placed upon the curriculum of the Ontario public school course, and the Minister of Education was fortunate, in manning the new Normal School, to be able to secure the services of Mr. Dearness to be associated with those upon whom rests the responsibility of training in the art and science of teaching those who will in future be entrusted with the country's public school work, which, to our mind, outranks in importance that of high schools, collegiate institutes or universities, because in the former is laid the educational foundation of the country's youth.

Cement Concrete Structures.

BY CORRESPONDENT OF "FARMER'S ADVOCATE."

Mr. Isaac Usher, of Queenston, Ont., in his Institute talks gives a few of the essentials and methods in the following words:

"In building concrete structures, clean gravel only must be used. It must not be earthy, loamy or sandy. It must not be too fine; in fact, the gravel should run in size from a wheat grain to egg size. If gravel of this sort is used, about eight barrels of gravel are used to one of cement, and it makes a stronger wall than very fine gravel and cement, equal parts, and is also more economical. Cement is put up in jute and paper bags. The jute bags hold two cubic feet of cement. The preparation of the concrete mixture is somewhat as follows: A bottomless box, 3 ft. by 4 ft. by 1 ft. high, is used, on a large platform where the mixing is done. The box is placed and half filled with gravel, then half the cement to be used is added; then to the box is added as much more gravel, and then the balance of the cement. (The proportion here is 1 to 6—12 cubic feet of gravel and 2 cubic feet of cement.) This is mixed thoroughly DRY! When thoroughly mixed, water is added gradually. About three to four pails of water is needed for the above quantity, varying a little according to amount of moisture already in the gravel. The water is thoroughly worked in until the mixture has the consistency of mortar. Only a small amount of sand in the gravel is needed, gravel about the size of eggs being most economical. Mix thoroughly, and when using ram down hard. It is better to excavate to get a good foundation. The foundations for walls are usually 18 inches thick, and on this is built a 10-inch wall, the wall being built in center of the footing (foundation). This size wall will support any weight in connection with a barn structure. Planks and studding are used to hold cement concrete while building; another method is by the use of clamps. A railroad barrow is the most useful article for carrying the concrete mixture around in. Large stones can be used in the heart of the wall, but they must be rammed down tightly. One barrel of cement will, with the necessary gravel, build a wall 35 feet long and 1 foot high. Good cisterns can be built in the ground with this material. The walls are usually 4 inches thick, with a parachute roof—18 to 24 inches of a rise. In this roof is a manhole 20 inches across. The manhole trap is of iron.

Construction of Floors. The manure trough (gutter) is put in first, then a 2x6 on the floor side and 2x8 stall side is used to hold the cement in place. There is a slight slope in the stalls, about ¼ of an inch. The floor for a cow stable is made about 3½ inches thick, 2½ inches of the rough 6 to 1 concrete being used and rammed down thoroughly, then about ¼ of an inch of the 2 to 1 concrete being used on top of the first lot. In this method one barrel will put in about 50 square feet. A floor is all the stronger and will wear better if it is ¼ to 1 inch thicker with the rough concrete (6 to 1). The foundation for the floor should not be broken stones, as they let air in and the concrete will dry out too quickly. It is far better to level the earth thoroughly, then put on a layer of sand or gravel 1 to 2 inches thick on top of this the concrete. Never put the concrete right on clay. Sockets are made 6x6 and built in at the side for the stall posts. The sockets are made by using water-soaked blocks 6x6, which are left in one-half to one hour, then withdrawn, and a hole is left in which the stall post is placed. In horse stalls a 2-inch fall is given. If sharp-shod horses are stabled, the floors should be planked on top of the concrete. Floors should not be polished with an iron trowel, as it will make a slippery floor.

NOTE. The bottomless box used for mixing the concrete in has cleats nailed along each side, to be used as handles to lift it around by.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

PUBLISHED BY
THE WILLIAM WELD COMPANY (LIMITED).
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WESTERN OFFICE:
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11. NO ANONYMOUS communications or enquiries will receive attention.
12. LETTERS intended for publication should be written on one side of the paper only.
13. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve the ADVOCATE, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
14. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD CO.,
WINNIPEG, MANITOBA.

Tuberculosis Discussed in Parliament.

The members of the Canadian House of Commons spent the greater part of one day's session recently discussing the question of the prevention of tuberculosis in human beings and animals. While it cannot be said that many really new points were made, still the observations of the various M. P's. and the Minister of Agriculture, Hon. Mr. Fisher, will tend to emphasize certain aspects of the subject that should not be lost sight of, and others regarding which there appears to be danger that the zeal of some persons will run ahead of their judgment and knowledge. The Minister of Agriculture announced that he had taken the precaution to have Canada represented at the late Tuberculosis Congress in Berlin, Germany, by Dr. Farrel, of Halifax, whose report to the Government should throw light upon this disease and its most modern and effective treatment.

Regarding the tuberculin test for cattle, we are inclined to agree with Messrs. W. C. Edwards, M. P., and J. G. Rutherford, M. P., that to encourage its use by the general public would be a mistake. We reach this conclusion after a very careful inquiry into the experience of persons engaged officially in tuberculin-testing in the State of New York and elsewhere. Its use as a diagnostic agent is comparatively a new thing. An error in the quantity or strength of the dose injected may give an incorrect diagnosis of the real condition of the animal operated upon, and under certain natural or exciting conditions the temperature of a perfectly healthy animal may rise. Furthermore, the particular way, as well as the degree, in which the temperature rises must be closely noted, because if it be sudden, followed by a sudden descent, then the cause is some local or accidental disturbance. It has also been found that tuberculous animals, after one or more tests, do not show the reaction. Obviously, then, none but competent experts, officially designated, should be operating this test, which requires scientific exactness.

Dr. Sproul, M. P., touched a point that cannot be too often or too strongly urged, viz., the need for systematic and thorough inspection of the sources of the milk supply of cities and towns. We have no doubt that a great deal of infant mortality is due, not to tuberculous milk, as some alarmists allege, but to milk improperly cared for or low in quality—poor in solids and fat, through

the agency of the pump, and drawn from cows whose water supply is impure and whose food is often largely made up of refuse from breweries. In other words, the little ones are simply the victims of malnutrition. Our attention has frequently been drawn to the stables of some of these town milkmen that were in a wretchedly unsanitary condition.

Mr. John McMillan, M. P., voiced the sentiment of the more advanced stockmen of Canada when he said that thirty-six years' experience as a farmer had brought him to the conclusion that it was just as necessary to keep the barns and stables disinfected and in a cleanly condition as it was for looking after the sanitation of dwellings for human beings.

Hon. Mr. Fisher briefly reviewed his policy, which had been for two years to disseminate information, to require the testing of imported animals, and making provision for the free testing, by veterinary officers, of Canadian herds for those desiring it, under special regulations. As a result, some 16,000 cattle had been tested with tuberculin, and out of this number only 1,017 reacted, or about 6½ per cent., which was a low percentage when it is borne in mind that it was largely suspected herds, located in unsanitary byres near large cities, that had been tested.

Mr. Clancy, M. P., contended that the disease could not be stamped out while owners were allowed to retain on their premises animals known to be diseased. The policy was half-hearted, and should be more thoroughgoing in order to minimize the disease and reduce the danger to other stock and human beings.

Judging from the costly, unfortunate and unsatisfactory experience of States that have experimented with the "stamping-out" process by test and slaughter, the Government would certainly be ill-advised to embark upon such a dubious and unnecessary undertaking. Prof. H. W. Conn, Ph. D., of the Storrs Experiment Station, Connecticut, recently made a thorough study of this whole subject in England, France, Holland, Denmark, Switzerland, Germany, and Italy, and his report,



ROYAL JUDGE.

First-prize Shorthorn bull calf under one year, Winnipeg Industrial Exhibition, 1899.

PROPERTY OF JOHN S. ROBSON, MANITOU, MAN.

reviewed at length in the May 20th issue of the FARMER'S ADVOCATE, stated that while bovine tuberculosis appears, by means of the tuberculin test and slaughter-house examinations, to have largely increased of late years in Europe, yet during the past fifty years human tuberculosis had decreased fifty per cent. He also asserts emphatically what common observation and study indicate, that the passage of this disease from animals to man is not a common method of dissemination; indeed, we are inclined to believe that it is entirely exceptional. The germs of "consumption," as the disease is commonly called, are, we believe, ordinarily communicated by means of germs in the breath or sputa dried and floating in the air from one person to another, usually in the same household, finding their destructive opportunity where the predisposing individual conditions and surroundings are favorable to disease. This, then, naturally suggests the wide legitimate and necessary field for the efforts of physicians and health-reformers.

The patient old cow has in her time been subjected to a good deal of unmerited abuse, and that she is the great source of human tuberculosis we believe to be a slander. She has been charged with taking tuberculosis to countries where, it is alleged, it was not previously known; while if the truth were ascertained the persons who introduced cattle probably took the disease in their own bodies. As Prof. Conn himself states, it is doubtful if the danger of taking the disease would be appreciably less if we should exclude milk and flesh entirely from our diet. Dr. J. H. Reed, V. S., clearly points out, elsewhere in this issue, that different organs of the animal may be affected. There seems to be a general opinion that it is only when the udder is involved that the milk becomes germladen. Hon. Mr. Fisher told Parliament that for a year past he and his officers had been searching for cows with definitely affected udders for experimental purposes, but had been unable to find one. The probabilities are, as he stated, that in no country in the world are cattle so free from

tubercular disease in any organ as in Canada. But despite all this, we have panicky regulations spasmodically proposed by enthusiasts—well-meaning, perhaps, but ill-informed, or else "worked" by persons who would create a bogus alarm in order to their own professional or personal interest, while the public bears the inconvenience and the expense. At the same time, the farmer or stockman who studies the well-being of his animals, profitable production, and his own interest generally, will take every needed precaution (by breeding stock healthy in every respect, by the use of wholesome food and pure water, reasonable exercise, thorough cleanliness in his stables, plenty of pure air and light) in order to maintain and improve the position we now hold.

Farmers' Institutes.

BIRD'S HILL.

On June 26th the Bird's Hill Farmers' Institute held their annual meeting and election of officers. E. Hoddinott was elected President; Wm. Knipe, Secretary-Treasurer. This society has a Babcock milk tester, take a number of farm periodicals, and are about purchasing a grass seeder for the use of the members. After routine business the speakers, C. C. McDonald and A. G. Hopkins, V. S., gave their respective addresses—Dairying and Contagious Diseases of Animals. The attendance was fair, and good interest was shown in the lectures.

PIPESTONE.

Held two meetings—one at Pipestone and the other at Reston. This Institute holds meetings at the two places alternately. Both meetings were well attended. A considerable interest was evinced in the subjects of the speakers. Dairying especially excited an animated discussion, the oil test's reliability being inquired into especially. The farmers here are not satisfied with the cream-gathering plan, and desire further instruction in farm dairying. A. G. Hopkins, B. Agr., spoke on economical beef production, and came out in favor of the dual purpose (general purpose) cow. This society is a thriving one, and always has good meetings. In this neighborhood, as with others, female help is at a premium. One of the prominent farmers advocates the introduction of Chinese for domestic work, as is done in British Columbia. Considerable interest was excited by the theme, "Contagious diseases of animals," due to the fact that glanders has been rife in the vicinity. This society is progressive, as is evidenced by the attempt to introduce a good heavy draft stallion. Such horses, weighing at least 1,850 to 2,000 lbs., are badly needed in the country districts.

HOLLAND.

A fairly good meeting was held here under the auspices of the Agricultural Society; the speakers, same as above, giving their respective lectures—"Dairying" and "Contagious Diseases of Animals." A lively interest was taken in both subjects, general dairying practice eliciting a good discussion, as did contagious abortion in cattle, and navel disease in foals.

GLENBORO.

At this town only a small audience greeted the speeches, yet a fair discussion ensued. No Institute is in existence here, the farmers of the vicinity not having yet felt the need of one. Wheat-raising is so easy that the average agriculturist of Manitoba persists in being a special earth tiller. He is not a farmer in the full sense of the word.

BRADWARDINE.

This Institute met to hear the speakers, I. Usher and A. G. Hopkins, B. Agr. This is a very strong Institute, both numerically and in quality. Mr. Usher was listened to very attentively on "Cement Concrete for Farm Buildings." In this wealthy agricultural district good buildings are being erected, so that the address on buildings was very appropriate. Dr. Hopkins was asked a number of questions regarding tuberculosis and tuberculin test and navel disease in foals.

OAK RIVER.

The Agricultural Society held a good meeting in the Town Hall, to meet the speakers sent out by the Department of Agriculture. Mr. Isaac Usher, of Queenston, Ont., gave an instructive address on the use of cement in farm buildings, going into the subject of ventilation very thoroughly. Dr. Hopkins spoke on contagious diseases of animals, and answered a number of questions on contagious abortion and navel disease of foals. Some of the audience had come from Hamiota to attend the meeting, the subjects being live ones in this locality.

RAPID CITY.

The Institute held a very successful meeting, and elected officers. This Institute is very fortunate, as their officials are energetic and interested, and present good reports of work done. Great interest was taken in the various subjects brought up; and the lecturers, Isaac Usher and A. G. Hopkins, B. Agr., were kept busy answering questions propounded by the audience.

Dates of Fairs.

Rolling River	Aug. 18th.
Industrial Exhibition, Toronto	Aug. 28 to Sept. 9.
Calgary Industrial	Sept. 3rd, 4th and 5th.
Western Fair, London, Ont.	Sept. 7 to 16.
Central Canada, Ottawa	Sept. 11 to 23.

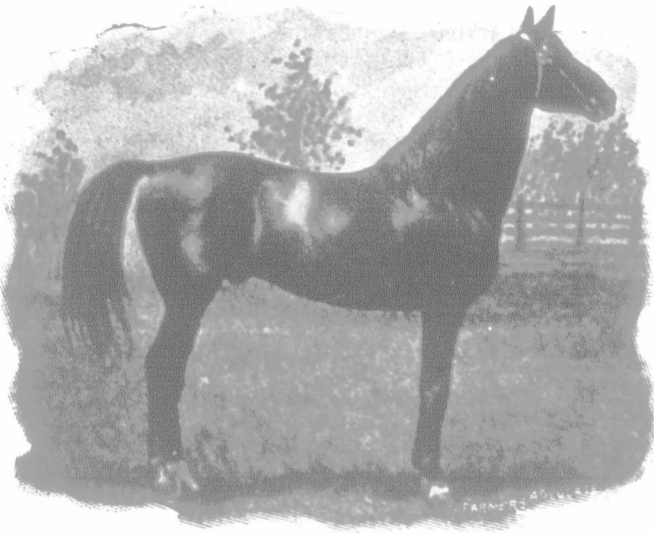
Winnipeg Industrial Exhibition.

The following is a continuation of our report of the Winnipeg Industrial Exhibition:

GRADES AND FAT CATTLE.

For the first time separate classes were given for beef and dairy grades throughout all the sections. Whether this classification is any improvement over one class to be judged from a "general purpose" standpoint is a matter open for debate. A number of animals of a distinctly general purpose type were shown in either class. The beef grades were principally Shorthorns, with a few Herefords, and the dairy grades showed crosses of one or other of the special purpose dairy breeds.

The Beef Grades were judged by Mr. Wm. Watt, of Salem, Ont., who also judged the beef breeds, and the successful competitors were: In cow 4 years or over, first to Wm. Sharman's Hereford grade.



HARD SERIES.

Imported Thoroughbred stallion, exhibited by R. I. M. Power, Carberry, Manitoba, at the Winnipeg Industrial Exhibition, 1899.

She is a magnificent, big, stylish cow, but a little far off the ground. Second and third went to a very neat Shorthorn grade shown by Geo. Allison, Elkhorn. In 3-year-olds Mr. Allison had no competition, but had out three strong entries—roans by Burnbank Hero, and bred by himself. W. E. Baldwin, of Manitou, won first and second with a pair of neat yearling heifers by Crown Jewel. The herd prize for females went to the very uniform herd shown by Geo. Allison, and second to D. Fraser & Sons, Emerson.

The Dairy Grades came under the judgment of Wm. Stewart, of Menie, Ont., who also passed on all dairy breeds. In this class also Wm Sharman was successful, but with an entirely different type of beast—this time a special purpose dairy type, Fillpail, a cow well used to wearing the red ticket at the Winnipeg Industrial, as well as other fairs. Daughters of this same cow were successful winners in the younger classes. A. B. Potter and Oughton Bros. showed fairly good cows in the aged class. Steel Bros., Glenboro, had the winner in the 2-year-old and yearling classes, with very nice Ayrshire grades. W. V. Edwards presented a third prize winner in the yearling class, a grade Jersey, whose dam gives 14 pounds of butter per week. W. Hardy, Pomeroy, had first on an Ayrshire grade calf, and Wm. Sharman first on herd of 4 females with Fillpail and her daughters.

For the special given by Hon. Thos. Greenway for the best milk cow, pure-bred or grade, six handsome, deep-milking cows lined up. After careful deliberation, the judge sent the red to Steel's Heather Daisy, the second prize cow in the Ayrshire class, as he considered her the best milk cow, though not the best Ayrshire. She has a fine udder and milk veins, and is evidently a cow of great capacity. Second prize went to Glennie's Daisy Teake's Queen, a number of extra good ones remaining unplaced.

Fat Cattle.—In the section for steer 3 years or over, three magnificent specimens of constitution and feeder's skill lined up before the judge, Mr. Watt. With the present-day fashion for "baby beef," we may not see many more of these Christmas carcass monsters. It don't pay. D. Fraser & Sons were first and second, the red going deservedly to Tupper, a short-legged, thick-set block, and the blue to a 3-year-old of their own breeding, and a fine animal too, but a little more leggy and not as perfect in his under lines. Purves Thomson was third on a capital steer. Frasers were alone in 2-year-olds, and 2nd in yearlings, Thomson winning in the latter class. Two cows of immense scale and finish competed. First went to a very fat red shown by P. Thomson, and second to Frasers' roan cow. It was difficult to fault either of these cows. Third went to a neat Hereford grade shown by Benalack & Lafrance. These exhibitors had the first on 3-year-olds with a very fancy heifer, level and smooth. Frasers second. Frasers first on calf, and Benalack & Lafrance first on four fat animals.

DAIRY PRODUCTS.

The dairy building at the Winnipeg Industrial was better filled than for several years past, and the judge, Prof. Haeker, of the Minnesota Agricultural College, pronounced the quality exceedingly uniform and of high excellence. There was a

noticeable improvement in the general appearance of the exhibits over previous years. Packages were filled flush with the top and left perfectly plain and free from fancy figuring, and most packages were sent in burlap covers, and so were clean and attractive. In farm dairy prints there is still room for improvement in the finish and in the quality of parchment paper used. In some cases poor paper cost the exhibitor several points in the score. In "fancy, ornamental" pats for table use there is a satisfactory falling off from year to year.

The exhibit of cheese was larger and better than for some years, and the cheese showed more care in making. A good deal of it was, however, too new, and some of it showed a lack of closeness in body. The entries in factory butter and home dairy classes were large, and the scores very close together. The prizewinners and the scores are given below:

Cheese.—Factory, colored: 1st, E. Dubois, Lorette; 2nd, K. W. Remier, Steinbach; 3rd, A. McCaughan, St. Francois Xavier. Factory, white: 1st, J. H. Ross, St. Francois Xavier; 2nd, E. Dubois, Lorette; 3rd, K. W. Remier, Steinbach.

Butter.—Creamery, 56-pound packages: 1st, Newdale; 2nd, Rapid City; 3rd, Shellmouth; 4th, Brandon. Creamery prints: 1st, Brandon; 2nd, Shellmouth; 3rd, Morris; 4th, Rapid City. Creamery, assorted packages: 1st, Rapid City; 2nd, Moose Jaw; 3rd, Hamiota; 4th, Newdale. Gold medal for best creamery butter went to Newdale. Home dairy, 20-lb. packages: 1st, Mrs. F. Robertson, Marquette; 2nd, Mrs. Rolston, Rapid City; 3rd, Mrs. Isaac Scott, Marquette; 4th, Mrs. E. Bewell, Rosser. Prints, 10 lbs.: 1st, Geo. White, Springfield; 2nd, D. Sutherland, Suthwyn; 3rd, H. Johnson, Logan, Iowa. Prints, 5 lbs.: 1st, Miss L. Scott, Meadow Lea; 2nd, Isaac Scott, Marquette; 3rd, Miss W. B. Hall, Headingly. Package, 20 lbs., made by farmer's wife or daughter: 1st, Miss Pritchard, Oak Point; 2nd, Miss Cummings, Lone Tree; 3rd, Mrs. Alex. McCrae, Turtle River; 5th, Mrs. Bewell, Rosser. Package, 20 lbs., made by dairymaid under 18 years of age: 1st, Miss Bewell, Rosser; 2nd, Miss Edwards, Souris.

DAIRY MACHINERY.

In the annex to the dairy building proper space is allotted for exhibiting dairy machinery and utensils. The most notable exhibits in this line were those of R. A. Lister & Co.'s Alexandra and Melotte hand and power cream separators; Disbrow Combined Churn and Worker; gasoline engines suitable for farm dairies, and a full line of dairy supplies. The Canadian Dairy Supply Co. exhibited DeLaval Separators in various sizes, and also a dog tread power, which attracted considerable attention. The Manitoba Cream Separator Co. showed the Mikado in a number of sizes, and S. M. Barre showed the American and other lines of supplies. In this building the David Maxwell Co. showed a full line of their barrel churns, operated by a lever instead of old-fashioned crank, and fitted with ball bearings.

GRAIN.

There were seven entries for the \$100 prize given by the Union Bank for the best 25 bushels Red Fyfe wheat; Harvey Coates, Pomeroy, capturing 1st, with a very beautiful sample; A. E. Mellon, of Portage la Prairie, 2nd, winning a \$50 cup offered by the Hudson's Bay Co. The other competitors were Thos. Maynard and Chas. Campbell, of Deloraine; R. Jackson, Hartney; Neil Martin, Wascana, Assa., and W. Jaffray, Elkhorn.

For the best five bushels of Red Fyfe, the prizes were awarded in the following order: H. Coates, Neil Martin, J. E. Vernon, Thornhill; Wm. Jaffray.

AGRICULTURAL MACHINERY.

From year to year the exhibit of agricultural implements has grown in size and importance at the Winnipeg Industrial. This year the display in this department exceeded that of any previous year. The local firms and several outside concerns made most creditable exhibits, and in spite of the fact that the machinery hall had been increased to nearly double its former size, there was still a great lack of accommodation, and the directorate will have to provide greatly increased facilities for implements, carriages, etc., as there is no doubt this feature of the summer fair is one of the most attractive and important to the thousands of farmers who visit the fair. Half a dozen firms made elegant displays in the carriage building—everything from the two-wheeled go-cart to the elegant Gladstone. Space will not permit of a detailed review of the implement department. Among the most conspicuous exhibitors might be mentioned the following:

Massey-Harris Co., with a complete line of haying and harvesting machinery, Verity plows, spring-tooth cultivators, shoe drills, etc., and the Sawyer-Massey Co.'s engines (portable and traction), threshers (from the small-sized horse power to the largest), completely rigged with self-feeder and blower attachments. In the Massey exhibit, one of the leading features was a model of a Manitoba farm with a couple of Massey-Harris binders at work in a field of wheat.

The Cockshutt Plow Company had their space tastefully laid out with a full line of their new high-lift sulky and gang plows, their new pattern stubble plows, which look as if they would clean anywhere and do the best kind of work. They also showed shoe and disk drills, the latter being fitted with disks of this Company's own patent, which they guarantee to clean in any kind of soil and give entire satisfaction. This firm also exhibited the

Goold, Shapley & Muir Ideal steel windmills with roller bearings; also a full line of grain crushers, straw cutters, etc.

Bell & Sons, St. George, had a full line of land cultivators, straw cutters, root pulpers, etc.

Joseph Maw & Co. exhibited the Chicago Aeromotor windmills in various sizes. These up-to-date machines are fitted with ball bearings, and give good satisfaction.

The Fairchild Company always make an elegant display at the Industrial, and this year was no exception, not the least attractive part of it being that occupied by the Deering mowers, binders, and rakes. These machines in their latest improvements are two well known to need further comment. The firm also exhibited the Wilkinson plows, sulky, gang, and walking plows, as well as the American John Deere. Also Monitor seeders, and Fleury & Sons grain crushers, etc.

H. F. Anderson showed Moline Plow Company's high-lift gang, rotary Dutchman and walking plows; also the Speight and Fish Bros. wagons.

The McCormick Harvesting Machinery Co. were also to the front with a full line of haying and harvesting machinery. Their Winnipeg agent is Mr. W. A. Cavanagh.

The Parlin & Orendorff Canton Clipper plow and Kentucky shoe drill were shown by Johnston & Stewart.

The Bradley X Rays gang plows, and the Rushford wagons, by Alex. C. McRae.

Chatham Wagon Co. also had an extensive exhibit.

The John Watson Manufacturing Co. had a full line of live-stock machinery, such as straw cutters, grain crushers, and root pulpers, etc., stubble and breaking plows and farm sleighs.

Haying and harvesting machinery was included in the exhibit made by Frost & Wood Co.

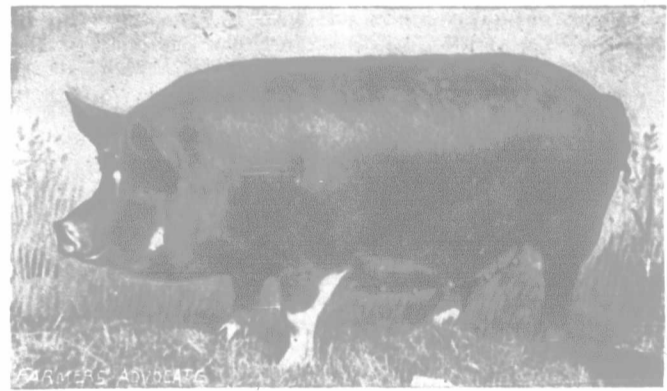
Sylvester Bros. exhibited disk and shoe drills; the disk drills of the Stevenson patent; also weeders, land rollers, etc.

Rock Island Plow Co. showed their disk plows, as well as gang and sulky.

The Dowagiac Manufacturing Company showed a full line of their improved seeders.

A good deal of interest centered around the twelve-foot Craver harvester. To this machine four horses are attached, immediately behind the harvester. This machine is intended to cut and bind a twelve-foot swath.

The threshing outfits shown on the exhibition grounds formed in themselves quite an exhibit, and should have a ten-acre plot, instead of being confined to such a limited area. To all Eastern visitors the monstrous traction engines and the great separators, with self-feeding and blower attachments, were objects of great interest. Among the many outfits in full operation were exhibits made by the following companies: The Stephens Mfg. Co.; the J. I. Case; the John Abell; the Minneapolis; the Battle Creek; Advance; the New Huber Threshing Machine Co.; the Waterloo Manufacturing Company; Gaar, Scott & Co., of Richmond, Indiana. The Lambert Gas and Gasoline Engine Co., of Indiana, had a 12-horse-power mounted gasoline engine, which was running a Waterloo



ARTFUL BELLE 21st.

First-prize Berkshire sow, over 6 months and under 12, Winnipeg Industrial Exhibition, 1899.

OWNED BY RODERICK M'KENZIE, HIGH BLUFF, MAN.

separator, and formed a very attractive feature to many as the first gasoline engine suitable for this purpose exhibited in this country.

Stubble burners were shown by E. Caniff, who for years has been working on the improvement of his machine, and also by Ashdown, of Portage la Prairie, who has a stubble burner using gas, which he claims is very effective.

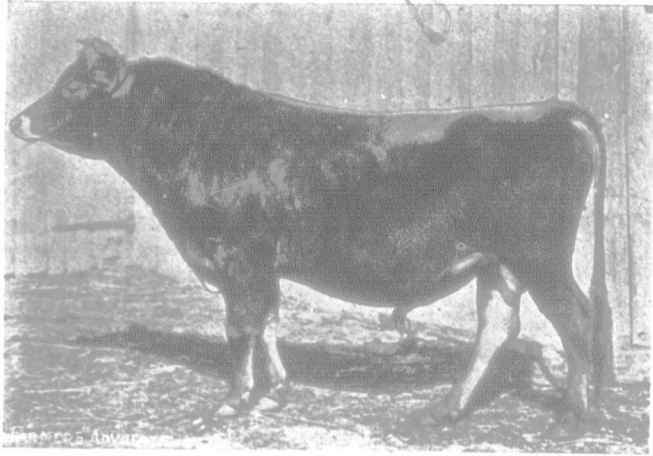
Stump pullers and scrubbers were shown by H. A. Fraser and A. E. Brown, both of Hamiota. These machines look like successful ones, and should prove handy in cleaning up poplar and willow land.

The "Farmer's Advocate" at the Toronto Industrial.

The FARMER'S ADVOCATE will, as in previous years, have an office in the Press Bureau building, situated across the street north-east of the main building, during the two weeks of the Industrial Exhibition, where we will be pleased to meet our friends and patrons.

The Brandon Fair.

The Western Agriculture and Arts Association held their third annual summer fair the week immediately following the Winnipeg Industrial, July 18th to 21st. Although the Brandon Fair of 1898 was an unprecedented success, that of 1899 was even more so. The officers and directors and the energetic Secretary had for months been devoting time and energy to leave nothing undone that would tend to the success of the Fair, and when the gates were thrown open a much larger number of exhibit than ever before were in position. The weather was most propitious, and the people came in crowds, all in the best of humor and prepared to enjoy themselves, which they apparently did to their hearts' content. The grounds are very much improved by the laying out of gravel roads, with rows of trees planted along each side, and as these improvements are extended from year to year, the grounds will become more attractive and beautiful. It is no disparagement to the management of the Agricultural Society that one of the best drawing cards



BRAMPTON MONARCH.

Two-year-old Jersey bull. Winner of championship, Toronto Exhibition, 1898. (See Stock Gossip, page 423.)

OWNED BY R. H. BULL & SON, BRAMPTON, ONT.

they have is the opportunity afforded of visiting the Experimental Farm, and hundreds of farmers and others take advantage of the cheap rates as much to visit the Farm as to see the Fair, and outside of the live stock exhibits, it goes without saying that as important lessons can be learned on the Farm as in the Fair grounds. This year the Farm looks well and shows the work of a master hand. Apart from the general attractiveness of the tree-planted avenues and drives, the arboretum and shrubberies, perhaps no feature is so noticeable and so pleasing as the absence of weeds. The effects of thorough cultivation and systematic methods can seldom be seen to greater advantage, although there is now ten times more work to be overtaken on the Farm than when it was started; there are no more men employed; weeds are practically conquered, and can now with a minimum of labor (and that nearly all horse labor) be kept in subjection, and every farmer can appreciate what an immense saving of labor that means, not only in the cultivation of the soil, but in the harvesting, threshing, marketing, etc. Great interest was shown by the visitors in the trees, shrubs, hedges, and small fruits. The grass plots were also an object of great interest, the Bromo grass being particularly interesting. Every plot of this grass, whether old or new, or under whatsoever treatment, seems to flourish. The patches of clover and alfalfa were also much admired, and great hopes entertained for the successful introduction of these most useful fodder plants and soil restorers. The beautiful showing of hardy annual and perennial flowering plants was a source of delight to many a farmer's wife and daughter, and from these object lessons many a farm home will be beautified and made more cheery.

HORSES.

The exhibit in this class was good, there being considerably more entries than in any previous year, and the average quality showed some advance. It was the general remark around the ring that the horses, especially the younger classes, from the farms were well conditioned and fitted. As throughout this district many farmers depend almost entirely on green-cut out sheaves instead of hay, it would be worth noting whether this has anything to do with the condition of the young horse stock. The light horses were judged by Dr. Young, of Manitou, and the heavy classes by W. Brisbane, of Cobourg, and Wm. Watt, of Salem, Ont. Although there was no special room for fault-finding in either class, still there was one more clear demonstration in favor of the single-judge system, the work of one judge being done fully, more expeditiously, and type and breed character more closely adhered to throughout the various sections.

CLYDESDALES.

But two aged stallions appeared in the opening ring, both good ones. Burnbrae, shown by J. A. S. Macmillan, the first prize and sweepstakes horse at the Industrial, was, after a careful survey of the two horses, sent to the front; with Colquhoun & Beattie's entry, Erskine Lad, a good second. Both are horses of great scale and true Clydesdale character. Erskine Lad, a favorite with many farmers, shows more action, but has not the levelness

and finish of his successful rival. In brood mares, T. Elder, Blyth, had the first premium in a grand good one, bred by N. P. Clark, of Minnesota; second going to J. B. Thompson's (Hamiota) Lady Almondale. This matron's fillies, Adeline McGregor and Princess Royal, both by Aldmuir 4230, were successful in their respective classes, and with their dam were first in mare and progeny class.

SHIRES.

J. A. S. Macmillan's Nailstone Morning Star II. was without competition in this class. He has done a big season, through the wet spring and heavy roads, and is in lower condition than previously shown.

HEAVY DRAFT.

There were some excellent teams paraded, the red going to Hughes & Long on a big draft team recently imported from Ontario, and the blue to J. Scott, Brandon, on a fine, massive team, well brought out. N. Rodgers had the first prize brood mare, and F. Rowland second. A. Cummings, Lone Tree, had an entry in yearling class, being without competition. Three draft foals came before the judges. A. Cummings was first, with a big, sappy colt, by Kintyre Hero; second going to a fine Burnbrae foal, shown by F. Rowland. The third entry was also a Burnbrae foal, shown by A. McPhail, Brandon.

Classes are given for agricultural and also for general purpose, as well as heavy draft, and each exhibitor is left to make his own definition of what these terms mean, and enter his stock wherever he thinks he stands best chance of winning. Much more intelligent results would follow if a clearer definition could be given these classes. Both the agricultural and general purpose classes were well filled. In the former class there were five teams entered, all good ones, but of several types, leaving the judges no easy task in selecting the two best. They sent the red, however, to D. T. Wilson's handsome bays, a team that fitted the class; second went to a thick, low-set team of blocks, just brought in from Ontario by W. E. Butler. Many would have preferred the larger, more up-standing pair shown by Mr. Bastard, of Brawardine. Others thought them too heavy for the class. While they carried a lot of flesh, they were not heavy enough for the draft class. N. Reid's browns and A. McPhail's bays were left unplaced. A. McPhail was first on brood mare, with a Burnbrae foal by side; Cummings second. D. T. Wilson, Assissippi, and Wm. Sanderson, Souris, were the winners throughout the balance of the class, with N. Rodgers first on a Burnbrae foal.

GENERAL PURPOSE.

The call for teams brought out four really good teams, well fitted, harness-d and handled. Elder, of Blyth, was first, with a particularly attractive, clean-cut, good-actioned pair; second going to A. McGee's gray team, of similar type and good quality. A. McPhail had the premium mare and foal, the latter by Pascha. J. B. King, Fairfax, first on 3-year-old. Ed. Russell, Douglas, first on 2-year-old, with an extra well developed roan. D. T. Wilson first on yearling, with a big, drafty colt. He was also first with brood mare and progeny.

CARRIAGE.

Alex. Colquhoun, Douglas, was an easy winner, with his German coach horse, Pascha. In foals, A. McPhail won, with a Pascha foal, and Woodcock second with a Prince Danegelt, both coarse grade foals and not properly belonging to this class. Under the rule of the class, the same applies to the teams and single harness sections. T. D. Stickle's (Carberry) beautiful pair of carriage horses were without competition. Six single turnouts faced the judge, and were placed according to style and action, coupled with roundness, etc. First, R. Willis, Boissevain, on a bay with beautiful action; A. French, Dauphin, second.

THOROUGHBREDS.

Four aged stallions came out in this ring, headed by Rumpus, a big, rangy fellow, with great action, shown by R. S. Fulton, Brownsville, Ont.; second to Dr. Hurd, shown by Shaw, of Carberry. R. I. M. Power, Carberry, was alone in 3-year-olds with Click. In brood mare, yearling, foal, and mare and progeny, Mr. Ernes, Brandon, was given the red tickets on Coleen, a beautiful sorrel mare, and her colts, much resembling herself; Shaw and Armstrong, Carberry, coming into second place.

STANDARD-BREDS.

Three stallions faced the judge, who based his decision on size and substance, and sent the red to Arabus, a big, strong horse, shown by R. S. Fulton, with Pathmont second. College Boy, shown by D. McLachlan, Chatham, was first in the 3-year-olds, and his brother, College Chum, bred by Mr. Lachlan, shown by D. H. Chambers, Wawanesa, first in 2-year-olds.

ROADSTERS.

Brood mare class brought out five fairly good mares, first going to a finely-turned mare with a foal by George S., shown by I. Blanchard, Miami; second to F. Woodcock, Chater. In teams, A. French, Dauphin, was first, with a well-matched pair of chestnuts, showing good, clean action; James Bray, Longburn, second, with a pair of Kilburn colts. In single drivers, H. McFarlane, Brandon, was first, with a big, handsome, up-standing horse, of fine action; A. Blain, Wawanesa, second, on another fine, clean-actioned chestnut mare, by Sharper, leaving a couple of good drivers unplaced.

HACKNEYS.

In the aged stallion class the Winnipeg competitors again came together, and were placed in the same order; March Past, owned by Mr. Power, Carberry, being first, and Mr. Macmillan's Prince Danegelt second. Mr. Macmillan's special for Prince Danegelt foals went to F. Woodcock, first; T. Mitchell, second.

Some very nice ponies and saddlers were shown. The winners will appear in the complete prize list to be published next issue.

CATTLE.

Most of the breeds were fairly well represented at Brandon, though in some there was little competition, probably owing in part to the fact that the prize list was not very attractive, there being only two prizes in each section, and the amounts not sufficiently large to be tempting. The beef breeds and fat cattle were judged by Mr. J. C. Snell, London, Ont., and the dairy breeds by Mr. James Bray, Portage la Prairie.

SHORTHORNS.

were represented by excellent selections from the herds of F. W. Brown, Portage la Prairie, and D. Allison, Roland. Wm. Chalmers, Hayfield, also showed a few, and won several prizes in the Province-bred competition, and also first for three-year-old cows in the open class. The herd prize for best bull and four females went to Mr. Allison, whose herd was made up of the first prize yearling bull, Riverside Stamp; second prize cow, Daisy of Strathallan 12th; first prize two-year-old heifer, Jubilee Queen (winner of sweepstakes at Winnipeg); first prize yearling heifer Crimson Cloud (also first at Winnipeg); and the first prize heifer calf. Mr. Brown's herd, to which the second prize was awarded, included the first prize three-year-old bull, and sweepstakes winner here, Lyndhurst III. (who had also won first at Winnipeg); the first prize cow here, Gaiety 5th, and her heifer calf; the second prize yearling heifer, and another good heifer of the same age. Mr. J. S. Robson's bull calf, Royal Judge, who was placed first at Winnipeg, held the same position here. Hon. Mr. Greenway had a choice selection of Shorthorns on exhibition, though not for competition. Among these were his fine stock bull Judge, the champion here last year; the four-year cow Freida, and the three-year-old Gem of Athelstane, which were sold to Capt. Robson, Iderton, Ont., and will probably be in his show herd at the Toronto Industrial Exhibition next month.

HEREFORDS.

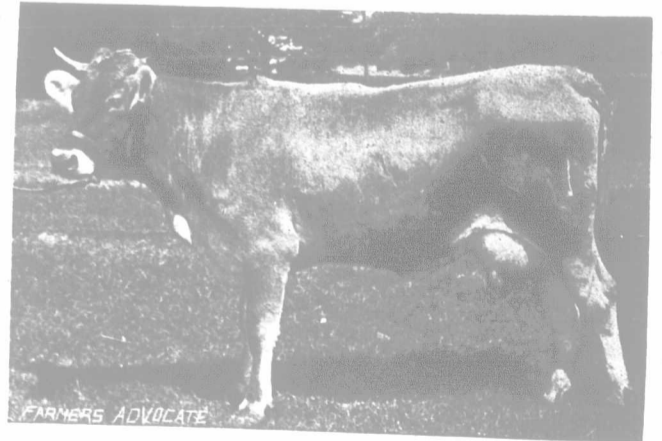
were well shown by J. E. Marples, Deleau, who won the herd prize and the bulk of the other prizes in the class, having recently purchased most of Mr. Wm. Sharman's show herd, and made a very creditable display of typical animals. Mr. Sharman had the first prize two-year-old bull, Pride of Westview (bred by Dr. Wilson, Moe's River, Que.), which also won the sweepstakes as best bull any age, and is of the proper type. The

POLLED ANGUS.

breed was well represented by the herd of Alex. Cummings, Lone Tree, which won first prize, and his bull Victoria's Montrose the male champion of the class. A. B. Fleming, Brandon, also showed a number in this class, and won several prizes.

HOLSTEINS.

were shown by James Glennie, Longburn, A. B. Potter, Montgomery, who secured a number of prizes; and James Herriot, Souris, who won



COLLEGE BRAVURA.

Three-year-old Brown Swiss heifer. At Agricultural College, Lansing, Mich., best weekly butter record, 9.52 pounds.

second prize with an exceptionally good cow of fine dairy type and carrying a model shaped udder. Mr. Glennie was successful in winning all the first prizes he showed for, including the sweepstakes for best bull and first prize for his great cow Daisy Teake's Queen, one of the very best of the breed in America. Of

JERSEYS.

W. V. Edwards, Souris, was the principal exhibitor, and won the majority of the first prizes, including the herd prize, headed by Dean of Highfield, the sweepstakes bull, and including Yankee Rosebud, the first prize cow (which, he claims, was giving fifty pounds milk daily at home); the second prize cow, Tip Malone; the first and second prize two-year-old heifers, Baby Malone and Brampton Rose; and the first prize yearling heifer, Souris Beauty.

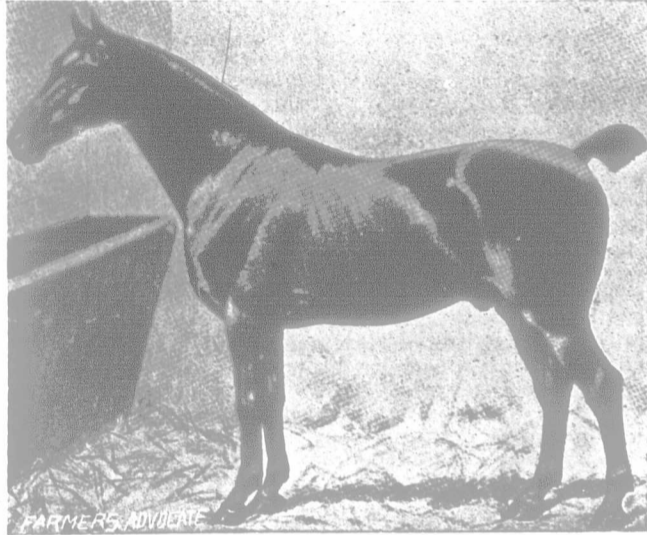
AYRSHIRES

were shown by A. Mutter, Brandon (who was awarded all the prizes he entered for, including the herd prize and sweepstakes for bull), and by W. M. Smith, Fairfield Plains, Ont., who had the second prize yearling bull.

The special prize of \$25, offered by the Bank of British North America, through their Brandon manager, Mr. H. G. Marquis, for the best herd (one bull and four females, two years old and under) of any pure-bred class, bred in Manitoba or N.-W. T., was awarded to J. E. Marples, Souris, for an excellent young herd of Herefords.

SHEEP.

The judges of sheep and swine were Messrs. J. McQueen, Carievale, and J. Yule, Crystal City. The competition in the classes for sheep was limited, there being more in the class for Leicesters than any other. The exhibitors in the latter were



HACKNEY STALLION, GRAND CADET 4797.

Winner of champion prizes at the Royal, the Highland, and the Notts Shows.

PROPERTY A. W. HICKLING, ADDBOLTON, NOTTINGHAM, ENG.

A. D. Gamley, Brandon; Jas. Murray, Lyleton; and D. Preston, Glenewen. Gambley won first prizes for 2-shear ram, shearing ewes, ewe lambs, pen of one ram, two ewes, and two ewe lambs, and for ram any age. Murray secured first prizes for shearing ram, first and second for two-year-old ewes, and second for two-year-old ram, ram lamb, shealing ewes, and ewe lambs. Preston had the first prize ram lamb.

OXFORD DOWNS.

In Oxford Downs, Alex. Wood, Souris, was the only exhibitor; and in

SOUTHDOWNS.

W. M. Smith, Fairfield Plains, had the field to himself.

There were no Shropshires shown, and there being no class for Cotswolds or Dorsets, these were entered in the class for any other pure breed. F. W. Brown, Portage la Prairie, showed Cotswolds; and R. H. Harding, Thorndale, Ont., Dorsets. The latter won the majority of prizes. The contest in aged rams was so close that the judges recommended a first prize for each. Harding was awarded first for shearing ram, ram lamb, shearing ewes, ewe lambs, and for pen of one ram, two ewes, and two ewe lambs. The first prize for aged ewes went to Brown, who had also second for ram lamb and ewe lambs.

SWINE.

The swine classes were fairly well filled, and many really good specimens were shown. In

BERKSHIRES.

R. McKenzie, High Bluff, and F. W. Brown, Portage la Prairie, were the exhibitors. The former was awarded first for boar over two years old, on Proud Victor; first for boar under six months; for sow over one year and under two; for sow under six months; and the sweepstakes for best boar any age, on Proud Victor. McKenzie had also second for boar under a year; for sow under a year; for sow under six months; and sow and litter. Brown secured first and second for yearling boars; first for boar under a year; first and second for sow over two years; first for sow under one year; for sow and litter; and sweepstakes for sow any age, on Cora Belle, the first prize sow over two years.

YORKSHIRES.

The exhibitors of Yorkshires were James Bray, Portage la Prairie, and A. B. Potter, Montgomery. Mr. Bray was awarded first prize for boar under a year and boar under six months; for sow over two years, sow under six months, sow and litter, sow any age, and boar any age. Potter had the first prize yearling sow; second for boar under six months; for sow under six months, and for sow and litter.

CHESTER WHITES AND POLAND-CHINAS.

were grouped, and the prizes were divided between W. M. Smith, Fairfield Plains, who showed Poland-Chinas, and W. L. Tramm, Crystal City, who showed Poland-Chinas and Chester Whites. L. A. Bradley, Portage la Prairie, showed a good lot of Tamworths, and secured most of the prizes.

POULTRY.

The exhibit in the poultry department was in many respects better than any previous year, and many birds of highest excellence were shown. Sharpe Butterfield, of London, Ont., placed the awards with general satisfaction.

GRAIN.

In the agricultural products building the exhibit was not as large as one would like to see in a great grain country. The difficulties of holding over grain from one season to another very much interfere with this department of our summer fairs, but, doubtless, as people get better granaries and have better facilities for cleaning and holding grain, this very important feature will become more prominent. In Red Fyfe wheat, best 2 bushels, W. S. Hunter, Brandon, was successful, with a very fine sample of No. 1 hard; John Rolston, Rapid City, being second. In the same class, open only to the E. D. of Brandon, the same exhibitor was again first, with J. H. Jackson, Hartney, second. In White Fyfe, J. D. Johnson, Ebor, was first. In white oats, H. Nichol was first, and C. E. Longstaff, both of Brandon, second. Some handsome samples of grain and grasses in the sheaf were shown in this department, but owing to the lateness of the sea-on, there was not a large entry.

DAIRY PRODUCTS.

Although Brandon is not known as a dairy district, still the dairy building was taxed to its utmost to accommodate the exhibit of butter. Dairy Superintendent Macdonald acted as judge. In cheese the entries were not numerous. A. Thompson was first in factory colored, with B. Dutton, Butte, second; and in factory white, these two exhibitors were reversed. Thompson was first in the homemade class. In creamery, A. A. Jory, Rapid City, first; Alex. Scott, Morris, second; and L. A. Race, Brandon, third. Out of 24 entries in farm dairy, 30 lbs., Mrs. Robt. Rodgers, Elkhorn, was first; Mrs. Freeman, Elkhorn, second; and D. V. Edwards, Souris, third. In prints, same number of entries, Mrs. Rodgers was again first, Edwards second, and Mrs. Ballantyne, Brandon, third. In class for farm dairy, 20 pounds, made from machine-separated cream, Mrs. J. B. Gibson, Alameda, first; W. H. Young, Minnedosa, second; John Gorrell, Carberry, third. Sweepstakes for the best dairy butter using Alexandra or Melotte separator, John Gorrell, Carberry. Other prizes will be given in full in complete prize list. Special exhibits of cream separators and dairy supplies were made by the R. A. Lister Co., the Canadian Dairy Supply Co., and the Manitoba Cream Separator Co.

The agricultural implement display was the largest and most complete ever made at this fair, and included all the leading firms, including Sylvester Bros.' disk and shoe drills, weeders, land rollers, farm wagons, six-horse-power Dandy windmill, etc.; the Massey-Harris Co., binders, mowers, rakes, Verity plows, seeders, and cultivators; Chatham fanning mills, and the Sawyer-Massey traction engines and separators, fitted with blower attachments; Jos. Maw & Co., Aermotor windmills; Smith, Inglis & Nelson; McCormick binders and mowers; Parlin & Orendorff's Canton Clipper plows and Minneapolis threshing machine outfits; the Cockshutt Plow Co., high-lift sulky and gang plows, new pattern stubble breaker and brush plows, disk and shoe drills, cultivators and weeders; and the Gould, Shapley & Muir Co.'s Ideal windmills, grain grinders, etc.; John Abell's threshing outfits; David Maxwell & Sons, mowers, rakes, and new steel-frame barrel churn with roller bearings; D. Bell & Sons, full line of straw cutters, root pulpers, grain crushers, and land cultivators; McLeod & Hanley, Dowagiac shoe and disk drills; also the Deering Ideal mowers, rakes and binders, and Battle Creek separators; the J. I. Case threshing outfits. Brandon Machine Works, whose specialty is repairing separators, engines, etc., showed a sub-soil packer of their own manufacture, an Acme grain pickler and a feed cooker; Frost & Wood Co., mowers, rakes and binders, etc.; the New Huber Threshing Machine Co. exhibited a separator; H. Carter, Brandon, a full line of wooden and iron pumps, as did also W. H. McIntyre & Sons. The Caniff stubble burner was also shown, and two stump and scrub pullers—one by A. E. Brown and the other by H. A. Fraser, both of Hamiota. The Northwest Grass Twine Co. also made an exhibit of the grass binder twine, operated on a Walter A. Wood binder.

NOXIOUS WEED EXHIBIT.

The Department of Agriculture again had a special building on the grounds for the purpose of exhibiting specimens of noxious weeds. Samples of every kind of noxious or troublesome weed were collected and labeled, under the supervision of Dr. Jas. Fletcher, Dominion Botanist, and Rev. Mr. Burman. Hundreds of visitors stopped at the tent to make enquiries as to the name, character, and methods of eradicating various weeds. The number of enquirers who lived in the Territories was this year very marked, showing that the work of instruction being done by the Territorial Government is having good effect.

Can Brome Grass be Sown with Wheat?

To the Editor FARMER'S ADVOCATE:

Mr. Bedford's article on the summer treatment of Brome grass is most timely. No doubt there are many persons who, like myself, have a small patch which they intend to cut for seed. I wish to endorse Mr. Bedford's exhortation not to be discour-

aged if the newly-sown grass makes little or no appearance. In 1897, on the 9th June, I sowed three pounds of Brome seed mixed with fifteen pounds of six-rowed barley. I let the barley ripen, and cut it with the binder, and pretty close to the ground, as the straw was short. You may remember how bare the ground was all winter, owing to the light fall of snow. Last summer (1898) it showed up rather straggling, but this year it is a splendid crop four feet high. Along side it in 1897 I sowed a pound of *A. tenerum* (native rye grass) and a pound of *A. canina*. Next year they came up very well, but this year the Brome grass has crowded them out almost entirely. I am satisfied from the result obtained that Brome may be successfully sown mixed with barley. I am anxious to know if it can be sown with wheat on a well-worked summer-fallow next spring. I sowed the barley and grass, mixed together, with a hoe drill.

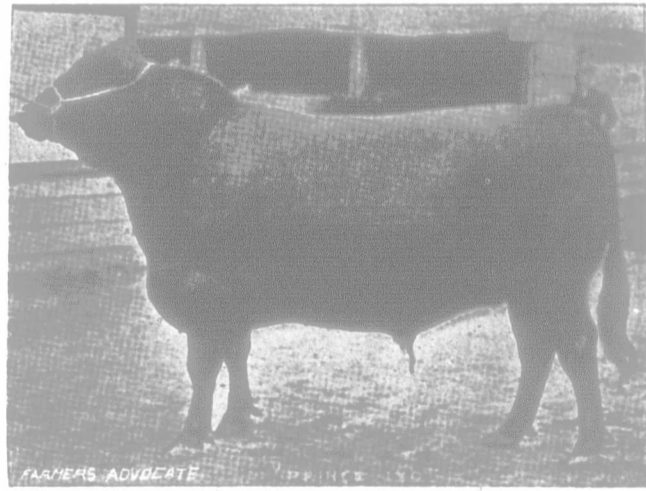
F. J. B. DOUGLAS.

Turtle Mountain Municipality, Man.

Herefords at Home.

THE HEREFORDSHIRE AND WORCESTERSHIRE SHOW.

This annual show is one at which one generally finds the Hereford cattle in their greatest force and strength. This reputation was fully maintained at the meeting of this society which took place on June 13th to 15th last at Stonebridge. There were four classes for bulls, five for females, and one family class—i. e., for bull, cow and offspring. In this latter class—a small one, but of good merit—Mr. E. White secured first place with Tedstone President, Dorothy 3rd and her calf by the aforementioned bull; Mr. J. Tudge, a name well known amongst Hereford men, being second with Viscount Rupert, Ruthem and her calf by the aforementioned bull; Mr. P. Baldwin being third; and W. H. Davies, R. N. In the open bull calved in 1898, a very good, even class, Mr. A. E. Hughes was to the front with Prosperous, by Albion 15027; Mr. W. Tudge being second with Goldsmith, a capital bull; whilst third honors went to Maximilian, a first-class bull of Mr. R. Green's; the same exhibitor also being R. N. with Climax. Messrs James Edwards, A. R. and G. W. Firkins and Capt. E. A. L. Heygate were winners in the local class. Two-year-old bulls—a small entry, of uniform merit and good quality—were headed by Nonpareil from Mr. A. E. Hughes' noted herd; Earl of Coventry being second with a very even-fleshed bull, Miser; and Mr. Laughton Moore third with Earisfield. The old bull class was also one of very considerable merit, Messrs. A. E. Hill and E. J. Lewis being rightly placed first with Newdigate, a grand bull, bred by Mr. J. H. Arkwright, by Pearl Cross, out of Lively 18th, by Hilarity; Iron King, from Mr. E. Yeld, coming in for second honors; and Admiral, from Mr. W. A. Andrews, was third. An even and good class of yearling heifers were headed by Mr. R. Green's Lady Help, by Diplomat 18328, her closest competitor being Waterweed, owned by the same exhibitor and got by the same sire; the third entry from this herd, Red Rachel, by Block Test, being R. N.; whilst the exhibits of Mr. S. H. Armitage and Mr. P. Gordon were placed respectively third and fourth in the award list. In the two-



ABERDEEN-ANGUS BULL, PRINCE ITO 12869.

Winner of first and special prizes at the Highland Show, 1899. PROPERTY OF SIR GEORGE MACPHERSON GRANT, THE CASTLE, BALLINDALLSCH, SCOTLAND.

year-old heifer class Mr. W. Tudge, with a beautiful heifer, Leinthall Beauty, by Rupert (16306), led the way, followed by a pair of meritorious heifers, of grand type and character, from Mr. J. Tudge's herd at Duxmoor—i. e., Lady Duxmoor, by Lord Letham 1337, and Wilton Star, by Forest King 18364—came in for the second and third awards. In the cow class Mr. R. Green came first with "Cedar," a four-year-old; Mr. R. D. Cleasby second; with Dora, from Mr. J. Tudge, R. N. The pair of heifers class was a really good one, in which were some very excellent yearling heifers, the first place being filled with a grand pair from Mr. W. Tudge's herd, New Year's Gift, by King George 18422, and British Beauty, by Goldbox 15389; Mr. W. T. Bamely's pair being second; and Mr. John Tudge third.

There was a capital lot of Shorthorns shown, and Messrs. R. Stratton, John Handley, George Harrison and J. Deane Willis were the leading winners.

One Judge or More.

The question whether a single judge or a bench of two or three is most likely to give satisfaction to exhibitors in the awarding of prizes in the live stock department of exhibitions, is one that has often been discussed and upon which there is yet considerable difference of opinion. With the single exception of the Toronto Industrial, the leading exhibition associations in Canada have adopted the single-judge system, and, so far as we can learn, with more general satisfaction than was formerly given by committees of two or more. As a rule, the leading fair associations in the United States have, apparently after varied experiences, settled down to the conviction that one good judge can do as good work as three, and do it in very much less time. The most vigorous "kicking" on the part of exhibitors that has been witnessed of late years or at any period in the past has been made under two



A GROUP OF THOROUGHBREDS.

Coleen, first-prize brood mare, and first-prize mare and two of her progeny; Admiral Dewey, first-prize yearling; Lady Vic, first-prize foal; McKinley, first-prize pointer dog, Brandon Summer Fair, 1899.

THE PROPERTY OF E. T. EARNES, QUEEN'S HOTEL, BRANDON, MAN.

or more judges. Two judges and a referee has been the favorite tribunal for several years at the principal shows in Great Britain, but Canadian breeders who have witnessed their work have not been enamored with the results of the system, and it is only necessary to refer to the reports of the Royal Counties Show, at Windsor, and of the Royal Agricultural Society's Show, at Maidstone, published in our last two issues, to demonstrate that the system is far from being entirely satisfactory. At both of these events the two judges differed in several cases, requiring the breaking of the deadlock by a referee, who, as usual, was only asked to decide between the two animals selected by the acting judges, but who might, if he had been given a free hand, have chosen another and a better from the competing list for either first or second place, as our correspondent, a Canadian breeder and a first-class judge, who reported the judging of the Shorthorn class at the Royal Show, clearly indicates that he would have done in one or two cases at least had the matter been referred to him, and it is difficult to see why the third man should not be allowed to choose from the whole list in competition as well as the other two. Of course, if this were allowed another tie-up might occur, and a second referee might or might not put things right if limited to the three animals chosen by as many different men. It will be noted that in all such cases the question is finally settled by the referee—a single judge. There is the further difficulty to be considered that if the expenses of judges are to be paid, as we certainly think they should be, the larger committee is more costly. The expenses of the referee should also be provided for if he is invited to be on hand, though he may not be called to act, and he ought to be appointed by the same authority as the judges. The fact that the Smithfield Club, one of the oldest and most successful societies that hold stock shows in Great Britain, has adopted the single-judge system for its next show is pretty good evidence that the prevailing custom there is not giving satisfaction. Whether it is owing to the growing practice (a proper one, in our estimation) of publishing the names of the judges prior to the date of the show, or to some other cause, it is worthy of note that there have been fewer cases of protest against the single judge chosen than against one of the two or both under the dual system, and the decisions of the single judge have commanded quite as much and as general respect as those of two or more. An English exchange, while recognizing and tacitly admitting the convenience and efficiency of the one-judge system, raises the point that where the entries are numerous and the classes large the work can be more expeditiously done by two or three. To this we decidedly demur, unless it be proposed to divide the work into as many sections, where there is too much work for one man, and that each shall take a separate part, which would, of course, be the single-judge system again, for we are fully persuaded, from experience and observation—and this is one of the advantages of the system—that one competent judge who knows his business, and who knows he knows it, can do more work than two or three, and do it in less than half the time, and quite as well, if not better. We have seldom heard a complaint of a single judge being too slow, but we recall many occasions where, with a committee of two or three, the spec-

tators, the cattle and their attendants were wearied by long waiting for a decision, and the remark has been made that the animals and the men gave evidence in their appearance of having aged under the operation. The objection has been made to a single judge that the man chosen may be prejudiced in favor of a certain family or type of cattle, and may in close competition give the benefit of a doubt, if not more, to his favorites. That class of man is more likely to be accepted under the dual system, on the presumption that his colleague will counteract such a tendency, and our opinion is that a man of pronounced prejudices would be more likely to work for the preferment of his favorite type, if associated with another man, by endeavoring to persuade his partner to agree with him, since he would not have to assume the responsibility alone, but would have another to share it, or on whom to shift it, while if he were acting alone, he would feel the full weight of the responsibility, would be more careful to do exactly what he believed to be the right, and would more clearly realize that his personal judgment and honor were at stake, and that the eyes of breeders who are as good judges as he are watching his work and will form a pretty correct estimate of his competency and his honesty as well. It may be objected that men competent to act singly are not plentiful, but to this the answer is that it takes twice as many to make a competent bench of two, and thrice as many to make a reliable committee of three, and if there are enough good men to fill the bill in the latter cases, there should be little difficulty in finding one who can be trusted.

Our Scottish Letter.

THE HIGHLAND SHOW, A GREAT EVENT.

We have been having a great week of agricultural enthusiasm in connection with the show of the Highland and Agricultural Society, which has just been held in Edinburgh. H. R. H. the Prince of Wales is President for the year, and he attended the show during most of two days—Wednesday and Thursday—when enormous crowds entered the field and took part in the proceedings. There has never been an agricultural event like this in Scotland, and during the four days that the show lasted the drawings amounted to about £10,195 19s. 6d. The third day (Thursday) established a record, the drawings for that one day amounting to £5,633 15s. 9d., of which £1,286 15s. 5d. was paid at the gates. The Prince was guided during his visits by Sir John Gilmour, of Montrave, Bart., the famous breeder of Clydesdales, who is chairman of the Board of Directors for the current year. The weather throughout has been superb—a good job, as with wet weather the ground on Prestonfield, where it was held, would have been little better than a morass. However, all's well that ends well, and 1899 will forever be memorable in the history of the National Agricultural Society of Scotland.

The feature of this great exhibition has been.

THE HORSE SECTION, and especially the *Hunting and Hackney* departments. Strenuous efforts were made by gentlemen and organizations interested in these breeds to have a large entry, and extremely liberal prizes were offered. The pick of the hunting stables of England, Scotland and Ireland were sent forward, with the result that Scotland was shown to be far behind in this class of stock. The best hunting horse in the country, Mr. G. J. Kidston's *Passionist*, which has frequently led all the shows in the country, failed to get a ticket, and champion honors went to a lovely chestnut gelding named *Gendarme*, from Mr. T. D. John's stable at St. Lagan's, Cardiff. This is a very handsome, sweet, well-trained horse, but in common with others we had a great fancy for a gray gelding named *Tattoo*, owned by Mr. J. J. Morebray, Naemoor, Dollar. He is up to a heavier weight than *Gendarme*, but is, perhaps, scarcely as fast. All the same, he would probably sell for quite as much money as the champion, weight being a supreme point in a hunter. The Hackney classes filled splendidly, and both championships went south, Sir Walter Gilbey taking the male championship with his renowned London winner, *Hedon Squire*, and Mr. Harry Livesey, Rotherfield, Sussex, the female championship with that lovely mare *Orange Blossom*, the champion of the Royal, and frequently first as well

as champion at the London spring shows. In the Roadster class the supreme honors went to another Welshman, Mr. Arthur Evans, Bronwylfa, for his very fine mare *Sonata*; and the pony championship also went south to a Yorkshire lady for a mare named *Love Letter*. Lord Londonderry, who is leaving his famous stud farm in the Island of Bressay, Shetland, bred almost all the prize-winning animals of this miniature breed, and secured the championship with a sweet but stout little pony stallion named *Gondolier*—a tiptop one and a great favorite on the parades.

CATTLE.

Cattle of all breeds cultivated in Scotland were strongly represented. For some unaccountable reason, the one breed somewhat disappointing in numbers was the Galloway. This is all the more surprising from the fact that the Duke of Buccleuch, whose guest the Prince of Wales was, owns one of the best herds of Galloways in the country.

Shorthorns were a fine lot of cattle, and although certain of the Maidstone champions were forward, the chief honors went north. The best bull and the best animal of the breed was declared to be Mr. A. M. Gordon's *Corner Stone 68406*, from the Newton herd of Inch, Aberdeenshire. This is a roan bull, three and a half years old, got by *Touchstone 60073*, from the famous prize cow *Butter Scotch*. He had a tussle with Sir John Gilmour's *Brave Archer 70018*, which got somewhat hard lines at Maidstone, for first place in his class, but on the whole *Corner Stone* was entitled to the premier position on the score of symmetry and style. This is the second year in succession for Mr. Gordon's herd to provide the breed champion, last year's winner being *Star of Dawn*, a beautifully level bull, which went to South America. The Maidstone winner, Mr. Harrison's *Count Beauty 72367*, bred by Mr. Duthie—a good square bull, but having rather too long a horn—led the two-year-old class. Both Her Majesty the Queen and the Prince of Wales were successful exhibitors of Shorthorn bulls. The Queen was first with a yearling and second with a two-year-old, and the champion female, the yearling heifer *Cicely*, was also owned by Her Majesty. This heifer was female champion at Maidstone, but she had a hard job winning the championship this week, her great opponent being a fine two-year-old heifer named *Lady 17th*, bred and owned by Mr. C. M. Cameron, Balnakyle, Ross-shire, who has one of the best herds in Scotland. An umpire was required to decide which of these heifers was to be champion, and he gave the honor to the royal herd. Mr. Cameron is to have a great sale in autumn, when Canadian buyers should look in. He has fine cattle. There was a brisk demand for Shorthorn bulls at this show, and many were sold for foreign export.

Aberdeen-Angus cattle were led for champion by the magnificent old bull *Equestrian 9653*, bred at Ballindalloch, and breed champion at Perth in 1896, as well as first at Dumfries in 1895. He is gay and handsome, and showed himself, in spite of his seven and a half years, as gaudy as a two-year-old. Apart from *Equestrian*, whose owner is Colonel Smith Grant, of Auchorachan, the champion of the bulls was Sir George Macpherson-Grant's *Prince Ito 12869*, a wonderfully well-fleshed bull, greatly improved since last year, when he was hardly in the running. He was champion all round in 1897.



LADY ELLEN AND THE GEM PRINCE.

First-prize three-year-old filly and stallion at the Winnipeg Industrial Exhibition, 1899.

PROPERTY OF R. REED-BYERLEY, COOK'S CREEK, MAN.

Another fine bull was the two-year-old *Diaz 11272*, bred at Aldbar, and owned by Mr. W. S. Adamson, Careston Castle, Brechin; and Mr. Hugh Urison, Milton, of Noth, had first with his yearling *Hengist of Pitpointie*, which stood first at the Perth sale in spring. The champion cow was Mr. Smith's *Petalite 22270*, bred by Mr. Simpson, Kirk-side, Banff, and from Powrie. McClement Stephenson and the Earl of Strathmore were, as usual, very hard to beat in the younger classes. The former had first and second for two-year-olds, and the latter, for the fifth year in succession, had first for yearling heifer. She was got by the famous bull, *Boaz of Ballindalloch*, and is simply perfect in her hind quarters.

Amongst the *Galloways*, Sir Robert Jardine's fine herd at Castlemilk provided both male and

female champions, the breed championship going to his cow, Nancy Lee 2nd of Castlemilk, a beauty. The Athottfold was providing the champion of Highland breed in the three-year-old bull, Calum Riabhach II. 1325, which carried off the same honor a year ago; and amongst the *Ayrshires* champion honors were worthily bestowed on the famous Mid-Ascot herd of the Messrs. McAllister in Bute. They showed splendid milk stock, which fittingly represented their high-class herd.

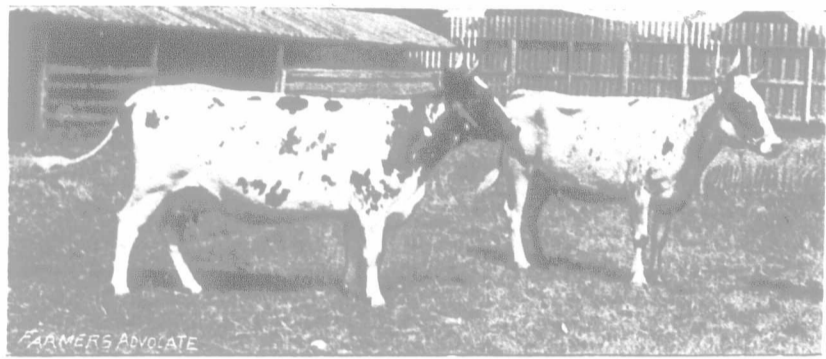
THE SHEEP.

Amongst sheep, the extraordinary feature was the success of Mr. Charles Howatson, of Glenbuck, with *Blackfaces* (he was first in every class, and took many other prizes), and of Mr. Robert Wallace, Auchinbrain; Mandeline, another *Ayrshire* man, with *Border Leicesters*. The championship of

mental shipments direct to Manchester, Liverpool, and Glasgow, with only moderate satisfaction, owing, perhaps, largely to the severity of their competition in the matter of price and the excessive freight charges.

Mr. Cook, on being consulted on the practicability of changing Australian frozen beef to a chilled beef trade, expressed the opinion that the prospect of a trade in chilled meats between Australia and the United Kingdom are very remote. Firstly, the voyage of 50 to 60 days is too long to admit of the meat being kept sound in a chilled state, and in the second place, Mr. Cook holds to the opinion that freezing does not in any way injure either beef, mutton or lamb; but we believe it is really a case of "Hobson's choice"—that or nothing—with the Australian. Furthermore, the larger space required for the carriage of chilled meat, and the greater attention it would require on the voyage, would necessarily increase the rate of freight beyond the enhanced price received. The few experiments that have been made have been complete failures, and Australian exporting and freezing companies are entirely opposed to any changes in the direction of chilling as contrasted with freezing.

Australia is competing successfully with Argentina in sending fortnightly shipments of frozen meat to South Africa, which Mr. Cook considers will be only a temporary market, since there is a probability of the Cape herds becoming restocked within a few years. Shipments of live cattle have been tried to that country, but with losses by mortality during the voyage of some 60 per cent. Mr. Cook reasonably concludes that the frozen will always beat the live cattle trade between Australia and the Cape.



AYRSHIRE COWS.

In the Hon. Thos. Greenway's exhibit at the Winnipeg Industrial Exhibition. SINCE SOLD TO E. T. PETAR, SOURIS, MAN.

this breed, however, went to an Angus man—Mr. David Hume, Barreilwell, Brechin, for a beautiful gimmer of surpassing merit.

"SCOTLAND YET."

Suit of Interest to Farmers.

WHEN ARE CATTLE RUNNING AT LARGE?—C. P. R. MUST PAY THE FARMER \$120.

An action of peculiar interest was tried before Judge McGibbon and a jury at Brampton last month. J. W. Albertson, of Lorne Park, owns a farm on both sides of Grand Trunk Railway track between Toronto and Hamilton, over which the C. P. R. has running powers. Last July, a year ago, Albertson sent his hired boy to bring the cattle from the field down to his farm. The boy collected the cattle and was driving them south along the road towards the railway track, when he suddenly saw a C. P. R. train approaching at a tremendous rate of speed. He dashed forward for the purpose of saving the cattle, but was unable to do so. Two of the cattle managed to get across the track, but the other three did not and were struck by the approaching train and killed.

The railway company contended that the boy had not the cattle sufficiently in charge. The plaintiff denied this, and further by his witnesses proved that the railway company had neither blown a whistle nor rung a bell, as provided by the statute, and were therefore in default. The case went to the jury, who answered all questions in favor of the plaintiff; but the railway company made a motion for non-suit, upon which Judge McGibbon reserved judgment, and he has just given judgment in the plaintiff's favor for the amount of the three cattle killed, which was fixed at \$120, and directed that the railway company must pay the costs.

Australian Frozen Meat Trade.

Since frozen beef and mutton from Australia come into competition with the meats from Canada, a glance at the situation as it is referred to by Mr. John Cook, of Melbourne (who has for years been intimately connected with the export meat trade), in a conversation with a representative of *British Refrigeration*, will be of interest.

Owing to three years of severe drought in Victoria, the sheep stock has been reduced from 60,000,000 to less than 40,000,000, with a very poor lambing season this year. In Queensland the late seasons have been patchy, but in New South Wales the weather has been less unfavorable, so that, on the whole, Mr. Cook considers the total number of sheep and cattle will be nearly maintained.

Regarding the system of Government inspection, Mr. Cook expressed his utter opposition to Government inspection, except for the purpose of preventing the treatment of stock found to be unsound or diseased. He finds that it has a restricting influence upon the trade, and that the Government inspectors have neither the skill nor the knowledge possessed by those who make it their business to freeze and export meat.

Regarding trade with the East, Mr. Cook considers its expansion will be very slow with such countries as Japan, China, and India. As to the present moment, there is a fair business being done in supplying the American troops in the Philippine Islands with beef.

As to the practicability of establishing a direct frozen meat trade between Australia and Manchester, Mr. Cook claimed to have sent experi-

mental shipments direct to Manchester, Liverpool, and Glasgow, with only moderate satisfaction, owing, perhaps, largely to the severity of their competition in the matter of price and the excessive freight charges.

Milk Fever Case Wrongly Treated—Cow Killed by Drenching.

To the Editor FARMER'S ADVOCATE:

SIR,—Owing to the increasing prevalence of parturient apoplexy, or "milk fever," and the discovery of an effective remedy, I would give your readers my experience with a case I pronounced as milk fever which terminated fatally in a dairy herd under my management. This cow, a fine Jersey, was in fair flesh, and of a strong, robust constitution. Being a persistent milker, she continued to give a copious flow until parturition took place on morning of July 17th. It was an easy birth. She was fed bran and hay and given as much slightly warm water as she cared for. The same evening she was out in a sharp shower of rain for about a quarter of an hour. At night she was partially milked and enclosed in a box stall, and was lively when left for the night. The next morning at five o'clock she was found lying with her legs stretched out, breathing laboriously, a slight moan escaping with each breath. She was bloated considerably, and struggled quite frequently, as though sudden pains troubled her at intervals. I undertook to treat her. I administered a pint and a half of linseed oil and two ounces of turpentine to relieve the bloating. In about twenty minutes I drenched her with two pounds of Epsom salts and an ounce of ginger. For half an hour the labored breathing continued and the bloating increased. To relieve this I punctured her on the left side, midway between the hook joint and the last rib. Had a good escape of gas, and her side became quite flabby. I had a rectal entry made with the hand, and a few particles of hard, dark excrement were dislodged from an arm's length. About this time I concluded to try the potassium iodide treatment which had been described in your columns in a recent issue, and was about to procure the required articles when I noticed the animal discharging some chewed hay and a watery-looking matter from her nostrils. This increased until it began to interfere with her breathing, so I had her raised to a natural position, with her front legs bent under her, and had her head held up, hoping to thus return the discharge to her stomach. Until this time (seven o'clock) the cow had been conscious, though in evident distress and perceptibly sinking. She had not been held in this position two minutes until she became unconscious. I let her head down, she gave three or four gasps, and died. It struck me as peculiar and unnatural that she did not struggle or move a muscle in the slightest degree, and I could only satisfy myself she was

dead by putting my ear over her heart. Was it milk fever? Had I been treating her properly? Hopkinsville, Ky. DAIRYMAN.

[There is little room for doubt that the case so minutely described was one of milk fever, and had she been given the Schmidt udder injections when first discovered down, she would likely have been living to-day. The great probability is that the cow was killed by the drenches she received, and which she could not properly swallow, causing them to enter her lungs. Dr. Tennant, V. S., who has had probably twenty cases, with only two losses, and those from interference outside of his treatment, has altogether dispensed with drenching until after the udder injection has so far cured the case to enable her to swallow properly, and then he gives simply a teacupful of whiskey, with a small quantity of ether and nux vomica. He seldom gives physic any more, as he finds the cows are generally better without it. When he reaches a patient he first washes the udder and teats with water to which has been added a small quantity of creoline, then milks her out and injects, with a perfectly clean instrument, the Schmidt treatment at blood temperature. He also finds it well to knead or rub the bag after the medicine is injected. He then leaves her as comfortable as possible for a few hours, when she invariably gets unto her feet. Usually in about six hours after the udder injections she is able to swallow freely, when the whiskey or other stimulant is given. It is generally necessary, or, at least, advisable, to repeat the udder injection ten hours after the first, and to continue giving the stimulating drenches every six or eight hours for a day or two. We have heard of several veterinarians trying the new treatment, and all seem well satisfied with it.]

Artificial Impregnation.

(BY VETERINARIAN.)

During the more prosperous periods in horse-breeding circles the frequent disappointment to the breeder in not being able to raise foals from a percentage of the best mares through apparent barrenness, led the more wide-awake to investigate the cause of failure and seek to overcome the difficulty. Upon investigation it was found that in very many of those cases the cause of failure to breed lay in the fact of various peculiar abnormalities existing at the os-uteri (neck of womb). Frequently this organ will, upon examination, be found to be mechanically blocked with mucus and membranous deposits, which only require to be carefully removed and the organ dilated with the hand just before service. But from what we can gather from literature and the more practical horsemen and stallion owners, the abnormality most frequently lies in an unnatural entrance to the womb (os-uteri), which is either directed to the right or left, up or down, as the case may be, forming a mechanical obstruction to the ready entrance of the vital fluid into the womb, which carries the spermatozoa to inhabit the ova; and while apparently a simple matter, these conditions have been a source of perplexity and loss to many an enthusiastic owner. Although this subject has been more thoroughly investigated by horse-breeders than any other class of men, it by no means follows that they are the



SPOTLESS OF INGLESIDE AND ISABEL.

First-prize and sweepstakes male and female Herefords, Winnipeg Industrial Exhibition, 1899. SHOWN BY J. E. MARPLES, DELEAU, MAN.

only ones who have suffered loss from this cause. Cows, ewes and sows are not exempt from such conditions; yet the former is, perhaps, noticed in greater percentage than any of the other domesticated animals. Not that the writer considers that they are so at birth, but contagious abortion (a prevalent disorder) has brought about a thickening of the neck of the womb, practically closing it up and rendering many a valuable breeding animal a subject for the block. Much has from time to time been written on the subject, and contrivances invented and placed upon the market to enlighten the public and relieve their condition, and although many of the instruments possessed high merit, yet much depends upon their successful manipulation. In conversation with Mr. O. A. Coates, of Bothwell, Ont., a successful and extensive stallion owner, we gathered that he had devoted several years to the study and practice of artificial impregnation, and from that gentleman (who has become an expert at both locating the trouble and applying

the proper remedies) we learned that he now considers barrenness an almost unknown condition, and has to-day in his vicinity many strong foals running about whose dams failed to breed in the normal way. After the second or third failure, Mr. Coates provided himself with the necessary appliances (such as impregnators, capsules, etc.), and practice has rendered the operation a comparatively simple one to him. What I wish more particularly to refer to is the introduction of the semen into the womb by means of the half-ounce gelatine capsule put up for ordinary veterinary practice.

The heretofore barren mare or cow is carefully examined as to the exact condition of the os-uteri. A clean basin and small glass syringe is at hand, heated to about the temperature of the blood (102° Fahr.), with warm water, also the necessary capsule, the cap of which has been punctured with a pin or other small instrument to allow the escape of air when replaced, then the service of the male is allowed, the semen is withdrawn by the hand from the floor of the vagina into the basin, and carefully and quickly drawn into the small syringe and deposited into the capsule and top replaced, which is pressed into the womb through its neck, the os-uteri. Care must be exercised in order to keep the outside of the capsule dry, as moisture renders it slippery and hard to direct. I believe the impregnator in every way reliable when carefully handled, but the danger of injuring the parts with which it comes in contact renders it more unsafe than the above described method.

In case of a stallion or bull being overrun at the busier seasons, it is just as practicable to catch the escaping semen from the stallion or mare when an independent mare is at hand at the proper moment, and impregnate the two subjects at one service. With cows this may be more difficult; yet, in the hands of an expert, this may even be accomplished with success.

The after-treatment should in no way differ from impregnation obtained by natural methods.

Larger Clydesdales Wanted.

SIR,—Mr. David Burns' letter in your last issue, on "Mares and Foals on Pasture," is a timely and practical one, and from which very little exception can be taken. His statement "that a great many Clydesdales of the present day are becoming finer and smaller and taking too long to mature" requires more than a passing notice, as this is unfortunately too true, and it is just possible that inbreeding may have done its share and carelessness played its part. However, my belief is that the craze of late years for quality, even at the loss of size and weight, has been the principal cause, until to-day we have plenty of animals weighing from 12 to 14 cwt., but few reaching 16 cwt. or more. This is to be deplored, as the latter class are worth almost anything the breeder or farmer may ask for them.

What is the remedy? Is it by using an outcross such as the Shire suggested by Mr. Burns, or quietly drifting back to the use of such stallions as we were so proud of 25 years ago—larger and somewhat rougher though they were.

The Clydesdale of to-day has all the useful characteristics of the heavy horse, except weight and size, but I would hesitate long before using any such cross as the Shire, especially such stallions as have been imported into Canada. I would urge: think less of quality and go more for the stronger, even if rougher, pure-bred Clydesdale stallions. We should not longer hesitate, as the difference in price between the medium and heavy weight is too great to continue in the old way.

Ontario Co., Ont.

WM. SMITH.

Raising Foal on Cow's Milk—Cure for Sprain.

SIR,—I have seen in June 20th ADVOCATE about raising a colt by hand, and I don't agree with the advice given. I will now give you my experience with one which is now just one and a half months old. Its mother never got up after foaling. I feed it six times a day on cow's milk (cold), without any water. I sweetened the milk with maple syrup for a while. I used about one gallon of syrup, and then weaned it from that. The syrup is to regulate its bowels. If too loose give it a little less, as you see it needs it. It is doing just as well as it would on its mother. It is now starting to eat a little hay. I keep it in all the time, either in a box stall or in the yard. It has a small rupture at the navel. I would like to know if it would be better to do anything for it. The reason I tried the pure cow's milk cold with syrup, I have seen three or four children raised on it. The mother never warmed the milk, and the doctor could hardly believe till he saw how well the children grew.

I will now give you a cure for a sprain. Take spirits of turpentine and salt butter, equal parts. Allow it to simmer on the stove in an earthen vessel, and when cold enough rub the joint well. Then saturate a woolen bandage with it and roll round the joint. You never tried a better cure.

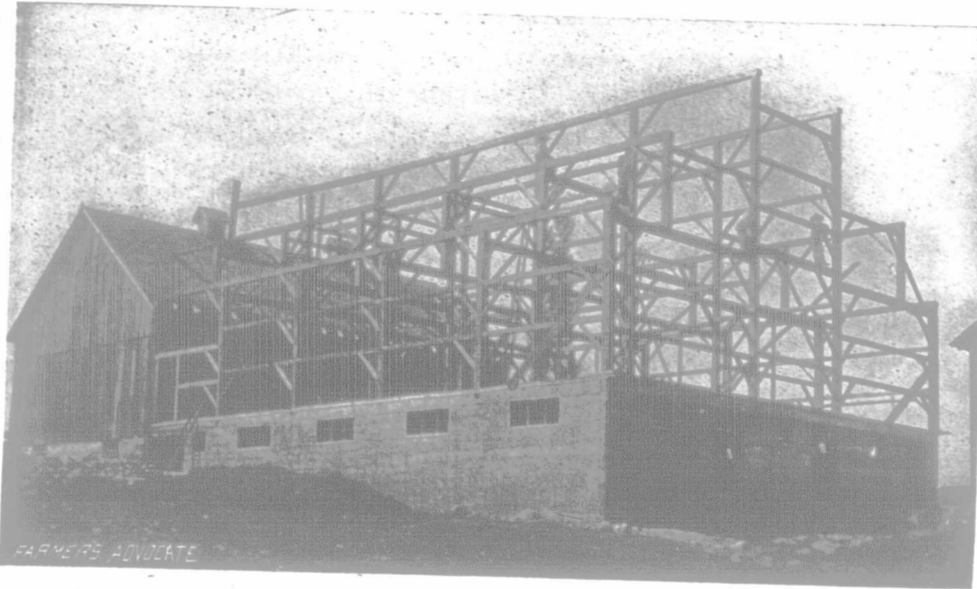
Huntington Co., Que. WILLIAM BROWNLEE.

A New Dairy Stock Barn in Course of Erection.

The barn basement and frame represented by the accompanying illustration is on the 150-acre dairy farm of Mr. J. A. James, Nilestown, near London, Ont. The new portion is 72 feet long by 60 feet wide, and butts against the old barn with stone basement, which it becomes a continuation of. The basement walls of the new portion are of cement concrete, made from Thorold hydraulic cement. The walls are eight feet clear inside, and on account of the barn being on sloping ground average about twelve feet high outside. There was used in the construction of the walls 100 barrels of cement, 150 loads of gravel, and as many small stones as the cement would take. It was built by four men in two and one-half weeks, and presents, both in our illustration and upon close examination, a most substantial appearance.

The basement is divided lengthwise into two rows of single stalls and a row of box stalls, with nine-foot passages behind the cows, and an eleven-foot feed passage, which leads through the old basement to cement silo beyond it. The entire floor is to be of cement, as are also the mangers and gutters. The feed passage is to be 14 in. higher than the floor where the cows stand, so that the side of the passage will form the back of the manger. There will be put in a complete watering system, supplied from a hydraulic ram. The windows, of which there are five on either side and three in the end, are each 5 ft. long by 2½ ft. deep.

The superstructure is to have five mows on either side of the 16-ft. driveway. The corner and side posts are 16 ft. long and 10x10 in. square. The purline posts are 8x8 in. square and 34 ft. long, and the peak of the roof will be 39 ft. from the barn floor. The barn will, when finished, be painted on the outside and fitted on the inside with every



BASEMENT AND FRAME OF MR. J. A. JAMES' DAIRY STOCK BARN, NILESTOWN, ONT.

convenience that appears necessary for the comfort and support of the capital Ayrshire herd it is being constructed to accommodate.

Cleanliness in Dairying.

To the Editor FARMER'S ADVOCATE:

A great deal has been written upon this subject, but I think that a few more lines would not be out of place, judging from what I observed to-day while taking in the milk at the College creamery. It is not at all unusual to find all sorts of filth in the bottom of a can, such as grounds, manure, etc., etc. Such a state of affairs cannot be tolerated much longer if we expect to be able to compete with Denmark and other countries in the leading butter and cheese markets. We must educate the producer in order that he may fully realize the vital importance of perfect cleanliness in dairying.

Of the many reasons for the necessity of cleanliness in handling milk, one of the first is that milk is a liquid and will dissolve a large portion of the foreign matter that finds its way into it. When this matter is once dissolved, no amount of straining can remove it.

Another reason for giving especial care to the handling of milk would be that from the necessity of the case it is not the so-called unobjectionable kinds of dirt, that are sometimes distinguished as "clean dirt," to which milk is usually exposed, but to the germ-laden dust and obnoxious odors of the cow-stable, as well as particles of dried manure, hairs, and other minute particles, so apt to drop into the pail during milking.

We must bear in mind that it is not the dirt of itself that gives rise to so much trouble, but that it is the undesirable kinds of bacteria which enter the milk along with the dirt, as they exist in untold numbers in these objectionable contributions. When the forage and bedding are handled just before milking, as is often the case with men who have not made a special study of dairying, a very objectionable kind of bacteria (known as hay bacillus) find their way into the milk with the

dust. In addition to the sources referred to, it oftentimes happens that the unwashed hands of the milker, together with some old coat that has previously served a period of more esteemed service, but now serves as a special garment for the grooming of horses and milking the cows, furnishes a smaller, though very objectionable, part to the general supply.

Again, we may find that good housewife or domestic who has not learned the superiority of a good brush to the much-used dishrag has been unable to remove all the slimy substance that adheres so tenaciously to the vessels. Thus a supply of bacteria sufficient for an undesirable seeding is in this way preserved. Not only is milk liable to contamination from the above-mentioned sources, but it is of such composition that when once seeded the bacteria can neither be skimmed off nor strained out, but are there to stay, as it furnishes temperature, moisture and food supply so admirably adapted to their growth and increase that under these favorable conditions they multiply at an inconceivable rate of rapidity. This increase in undesirable bacteria very materially affects the keeping quality of the milk, thus greatly shortening the time in which it can be put upon the market in an apparently fresh condition. Or if the milk is to be used for the manufacture of butter or cheese, the presence of these germs will prevent a proper ripening of the cream, thus making it impossible for the buttermaker to secure that much-sought-for quality, good flavor, in his butter. In the production of cheese they produce gassy and floating curds, which cause the cheese to be spongy and "pinholey."

After these things have been considered, there is yet the influence that uncleanness may exert upon the health of the consumer of the milk or its products, and also as regards securing the best price for the article offered for sale. As regards health, there is no longer any doubt that impure milk is not only undesirable, but positively dangerous, from the disease germs that are likely to abound wherever there is dirt, filth or decay. The milk may not only serve as a means of conveying the germs of such diseases as typhoid fever, tuberculosis, and numerous other virulent diseases, but the decomposition that is set up in the milk by the putrefactive bacteria may produce in milk or its products toxic compounds that are extremely poisonous, and which often produce sickness or even fatal results.

This form of poison, as well as various other troubles, develops in cheese also, and is, like other cheese diseases, supposed to be the outcome of improper care of the milk.

In butter, one of the most annoying effects of undesirable bacteria is the earlier development of butyric acid and the consequent rancidity of the butter. From some experiments made here at the Iowa College creamery in regard to the keeping qualities of butter made from cream that had been separated from milk which had been exposed to unfavorable conditions that are so frequently to be met with, and other cream that was free from all undesirable kinds of bacteria, I am firmly convinced that uncleanly conditions are more directly responsible for rancidity in butter than is indicated by any authority that I have read upon that subject. I do not hesitate to venture the opinion that if more thorough cleanliness was rigidly practiced by all who put butter upon the market, the reduction in the amount of rancid butter would be sufficient to silence those champions of oleomargarine and other imitation butters who have been successful [In the United States.—Ed.] in persuading so many that these products of the great packing corporations should be allowed to supplant butter as an article of food on account of their better keeping qualities. While it is possible, by resorting to pasteurization and pure culture starters, to improve the quality of butter made from milk that has been poorly cared for, I think it is admitted that there is no process by which poor milk can be made to produce the very best butter or cheese. We must also bear in mind that while commission merchants purchase the poor butter with reluctance at a lower price than is profitable to the producer, they are eagerly watching for the very best, and will often pay from half a cent to one cent a pound above market quotations to customers who can always supply them with the very finest article. W. J. KENNEDY, B. Sc. AG. Iowa Agricultural College.

To Secure Better Milk from Careless Patrons.

The *Produce Review*, in its effort to help creamery managers to succeed in getting careless patrons to take better care of their milk, asked a number of leading U. S. dairymen their advice upon the subject. Among the many suggestions of correspondents, we call the following, all of which may be called parts of the argumentative or persuasive method.

1. Secure the confidence of patrons by being at all times courteous, genteel, and friendly to all, and dealing with strict honesty and impartiality.

2. Be sure to make your creamery a pattern of neatness and cleanliness, otherwise your demands for cleanliness on their part will appear ridiculous.

3. Prove to them that it is to their interest to keep the quality of the factory's product as high as possible, and that the finest goods cannot be made from defective raw material. Explain the effect of poor milk in reducing the size of the monthly milk payment.

(But how much more potent is this argument when you can explain that you cannot take poor milk at all in justice to your other patrons.)

4. Set an average standard and offer a premium for milk showing exceptional quality, say that which has been carefully strained, aerated and cooled below 60°, the cans being perfectly cleaned, etc. Or pay different prices according to quality, as well as according to fat content: two grades are suggested.

(If it is poor milk, it may be dear at any price for butter or cheese making.)

5. Educate them.

(Many suggestions were made which properly belong under this general head. They include the organization of patrons' clubs and holding educational meetings; visiting the patrons and explaining the proper methods of caring for milk, as well as the proper care and feeding of the cows; furnishing the patrons with instructive dairy literature, also with printed instructions as to the creamery's requirements of quality and how to meet them.)

6. Encourage every patron to keep enough cows so that the item of milk will be large and important, making rejection a serious matter, and attracting more attention to the necessity of knowledge and care.

7. Establishing competition between the patrons as to who can produce the best average milk condition for a month. The offer of prizes is suggested.

Undoubtedly all of these suggestions have in practical work been found useful, and theoretically they are generally sound and good. They should be used as far as possible in all cases, but it will certainly be found that only when they are built up on a foundation of rejection of poor milk will the improvement be rapid and satisfactory.

Good Butter.

ITS CHARACTERISTICS AND HOW TO MAKE IT.

BY PROF. H. H. DEAN.

Good butter is made up of fine flavor, good grain, body and texture, even color, uniform and mild salting, and attractive appearance, combined with keeping quality, for the export trade.

In our dairy school we use the following scale for judging butter:

Flavor	45
Grain and texture	25
Color	15
Salting	10
Package	5
Total	100

Fine Flavor depends upon the cow, the quality of the feed, and the care of the milk, as the patron's part of the work. After the milk reaches the creamery, the main point which determines the flavor of butter is the proper control of its cream-ripening. The chief factors in cream-ripening are the "starter" or culture used, the temperature, the length of time ripened, and the amount of acid developed in the cream. The main points to be observed in proper ripening of cream are: To have a good culture and propagate it from day to day by using pasteurized skim milk as a basis, to have the temperature such that the cream will ripen in 12 to 20 hours (though I consider if makers could have perfect conditions a longer time would give better results), to check the acid by cooling or churning when it contains .5 to .6 per cent. of acid, depending on the richness of the cream, and to be careful in the washing and working of the butter, so as not to destroy fine flavor. Cream having 25 to 35 per cent. butter-fat is suitable for producing fine flavor, as it contains about the right proportion of caseous and sugar material for the ferments to work upon. More than 35 per cent. fat does not contain enough flavoring material, while less than 25 per cent. contains too much, and needs to be watched carefully or it will become overripe, besides causing more labor in handling and cooling.

Grain and Texture are determined by the cow, the feed, the temperature of cream and water, and method of working. Some cows produce butter of firmer texture than others, while some give butter which is too difficult to spread on bread in winter time. The quality of being suitable for bread-spreading is a very important one in butter. Soft foods tend to produce soft butter, because they make an excess of the soft or oily fats. The higher the temperature at which the cream is churned above 55° the softer will be the butter, especially separator cream butter. Too much working and working by friction tend to make butter "greasy." A roller or lever worker, which applies gentle pressure, is best suited to preserve "grain" in butter. Soft butter may be temporarily hardened with cold water when washing, but it is not a permanent remedy. The temperature at which butter is stored also affects its body and texture.

There is a growing demand for pale-colored and lightly-salted butter. Too many Canadians are spoiling their butter for fancy trade by going to extremes in color and salt. To secure even color, a

thorough mixture of the salt with the butter is the main point to observe. Washing with water too cold sometimes causes "streaks" or "mottles." The chief remedy for mottling is working twice. Fine salt, at the rate of 1/3 to 1/2 oz. per pound butter, suits the Canadian trade. Less than 1/2 oz. is desirable for British markets.

The most suitable package for export is the 56-lb. box lined with paraffine wax and heavy parchment paper. Pack the butter firmly and cover top with parchment paper and a light salt paste. Boxes are better covered with canvas sacks for shipping. For local trade we use the oblong pound print wrapped in parchment paper, 8x11, having our stamp—



—on each print.

For keeping quality have perfect milk, ripen cream properly, churn at as low a temperature as possible, wash twice, salt one ounce to the pound, work twice, pack firmly in tub or box, exclude the air, and keep at a temperature of 12° to 33° F.

Ontario Agricultural College. H. H. DEAN.



DR. JAS. FLETCHER, PROF. OTTO LUGGER, HUGH M'KELLAR. The professors hunting grasshoppers in the Boissevain and Deloraine districts of Manitoba, where the Rocky Mountain locusts committed considerable damage to farm crops in 1898.

Brooder House.

In order to successfully raise early or winter chickens, a comfortable house is necessary. Manufacturers of poultry supplies are prepared to furnish us with outdoor brooders, but these are scarcely suitable for large numbers of chickens until the snow has gone and the weather has become warm enough for the chickens to spend some time in the open air. We find that a warm house saves food and fuel. The season is fast approaching when we must begin planning and building if we intend to raise chickens during the coming winter.

There are houses and houses, and each has some special claim to our consideration. If one is a practiced hand at broiler-raising, the cost of the house is not so much to be considered as its suitability and durability. The one I shall describe is suitable for a learner, as it is not expensive and will last sufficiently long for the beginner to be transformed into a successful poultry-raiser, or to have decided that poultry-raising does not pay.

Ours, as shown in Fig. No. 1, is constructed of unplanned, cheap quality of inch pine lumber for siding and roofing—two thicknesses, or double-boarded, with one ply of tarred paper between. The lumber is all put on outside of the frame, and is quite windproof.

The frame, as shown in Fig. No. 2, is composed of 2x4 in. scantling, excepting the collar beams, which are inch material, and sills 2x6. The building is 12 ft. wide by 20 ft. long. The north side is 6 ft. high, the south side 4 ft., with double pitch roof, being 8 ft. high in the ridge, which is 4 ft. from the north wall, giving the largest slope to the south. The sills rest on the ground, and it is banked on the outside and filled (preferably with gravel) level with the sills inside. The windows being low, the sunlight is thrown directly on the floor, which is the best place for the light in a brooder house. Single windows are used. Some poultrymen prefer the slope to the north, with the passage running along the south side. This must shut the chickens further from the sunlight.

In Fig. No. 3, the inside divisions are shown. In the section marked 1 (12 ft. by 6 ft.) we keep a box stove and the food supply. The pipe from the stove runs the full length of the house, retaining all of the heat. Wood being plentiful, we find the stove furnishes plenty of heat after the first few days of "chickenhood," so that the brooder lamp can be put out during the day. In section 2 (which is 9x4 ft., a brooder, marked B, is kept which will accommodate fifty chickens, more or less. This



FIG 1 BROODER HOUSE

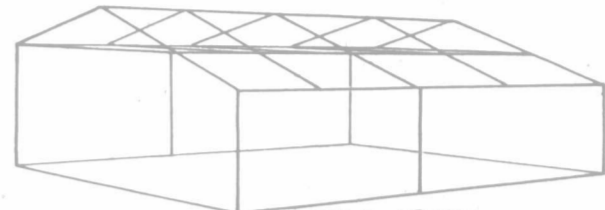


FIG 2 FRAME

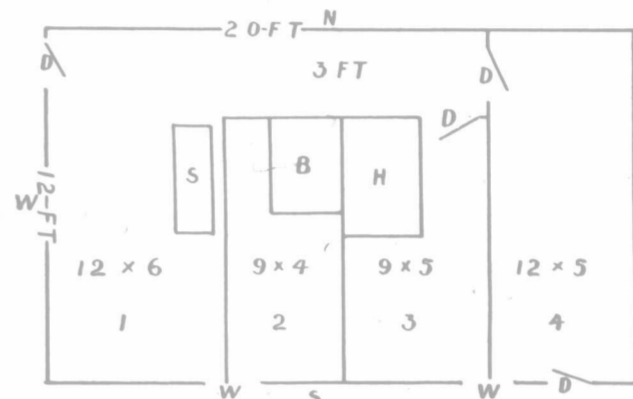


FIG 3 GROUND PLAN

pen will always contain the latest hatches. When three weeks old they are moved into pen 3 (9x5 ft.), which is provided with a warm hover, marked H. This is similar to but larger than the brooder, and requires no lamp. When a third lot is hatched, the first are moved into pen 4, which extends the full width of the house, being 12 ft. long and 5 wide. When the fourth lot of chickens are hatched the first is ready for market, and should weigh between two and a half and three pounds to the pair. Some broiler-raisers succeed in getting them to weigh four pounds per pair at eight weeks old.

The divisions between the pens should be of netting, and a ventilating shaft may be run from the floor through the roof. We have a small door leading from division 4, so that the older chickens may have some outdoor exercise. Some successful breeders put one hundred chickens in each division instead of fifty. In that case I think the first compartment, marked 2, and the brooder, should be divided lengthwise in order to avoid overcrowding of the very young chickens. GYRA.

Pure Culture Starters.

DEAR SIR,—I would like to draw the attention of owners and patrons of creameries and cheese factories to a circular recently issued by this laboratory to the creameries and cheese factories throughout the Province.

The circular contains information which will be of service to cheese and butter makers. It also states that this laboratory is prepared to furnish them at a nominal cost with pure cultures for cheese and butter making.

There have, as yet, been very few applications for these starters, more cheese than butter starters having been asked for. There can only be two reasons why this opportunity is not being more fully taken advantage of. Either the buttermakers consider that their butter cannot be improved in flavor or keeping quality, or they are unaware of the advantages derived from the use of pure culture starters.

In order to give some information to those who have not been able to give much attention to the subject, I have made a few extracts from a recent report of Prof. Conn, of Storrs, Conn., who has recently been inspecting the European dairy methods. As he is perhaps the highest authority in America upon the bacterial production of flavor in butter, his opinions may induce patrons and makers to make a further study of the question.

EXTRACTS FROM PROF. CONN'S REPORT.

"It has been proved that the quality of the product is in a considerable degree dependent upon the particular kind of bacteria which may ripen the cream. . . . These facts are well known, but the practical application of them has not been very widely extended in any European country except Denmark and North Germany.

"In Denmark the use of pure cultures has become very common. It is stated that over 95 per cent. of the butter made in this great buttermaking country at the present time is made by the agency of artificial cultures used in cream ripening. This percentage is surprising, and conveys a very great lesson. Danish buttermakers stand at the head of the profession for the world. Danish butter commands the highest price, and has the highest reputation of all butters. The Danes adopt with practical uniformity the use of pure cultures, and the undoubted inference to be drawn is that the use of pure cul-

tures in cream ripening results in uniform advantage.

"The conclusions of the Danish Association of Buttermakers is given as follows: 'Butter made with pure cultures is almost always better than that made by the older method. While this is not always the case, and while it is true that some samples of butter made without pure cultures rank very high, there is no uniformity in regard to the grade of the other types of butter, while the butter made by pure cultures is of uniform grade. There has been since the introduction of pure cultures a noticeable and almost universal improvement in the grade of Danish butter in general.' The results of this method of the use of pure cultures in Denmark are, of course, satisfactory, or the method would not be so widely used.

"It is somewhat more expensive than to make butter without pasteurization and pure cultures, and we may be sure that if the result were not satisfactory the process would not have been adopted in over 95 per cent. of the creameries."

The starters sent out from the laboratory are identical with those used in Denmark, and with proper care and management should yield equally good results. Patrons should ascertain if their makers are obtaining the highest price for their butter or cheese; if they do not, let them make inquiries as to the cause of the lower price. In nine cases out of ten the fault will be found in the flavor; that is, it is the result of bad or no starters, or of tainted milk.

In other industries where bacterial organisms are made use of in the production of a manufactured article, such as in breadmaking, brewing, etc., those establishments which use the pure culture system are superseding those which adhere to the old, unreliable methods.

The pure culture method is not a mere scientific theory. It is nothing less than a businesslike method of producing a standard and uniform article. No man expects to obtain a clean crop of wheat if he sows seed which contains half a dozen kinds of seed, and he can no more reasonably expect to obtain butter or cheese with a uniform flavor if the cream has been ripened by undesirable bacteria.

The Canadian cheese has obtained the position it now holds in the British market because in its manufacture accurate technical knowledge and sound business principles have been used. At present the Farmers' Institutes in the States, and the dairy associations in Australia, New Zealand, and the States, are taking up the subject of dairy bacteriology far more energetically than is being done in this country. It is especially desirable, now that the efforts of cold storage are being so closely watched by the British buyers, that everything that can have an improving influence upon our food products should be taken advantage of to the fullest extent.

It must not be supposed that pure starters will compensate for carelessness or neglect in any part of the process of buttermaking. Milk or cream that has undergone any injurious bacterial change cannot be made to give good butter or cheese by any treatment. The greatest benefit can be derived from the use of pure cultures only when the cream or milk is ripened by the bacteria contained in the starter. This, as a rule, necessitates pasteurizing the cream. However, great improvements can be made by taking precautions as to cleanliness and the employment of low temperatures while handling the milk, the starter being added when the cream is set to ripen.

MALCOLM ROSS,
Bacteriological Dept., Ontario Agr. College.

QUESTIONS AND ANSWERS.

Veterinary.

LAMINITIS (FOUNDER).

V. R., Caron, Alta.:—"I have a driving horse that is foundered; five years old. Driven all last year. About six weeks ago was fed on wheat sheaves. Got lame on front feet; was turned out to pasture for two weeks, then driven nineteen miles. Since then has been a cripple, but is getting better. Have poulticed his feet and kept him in wet pasture field. Would you advise bleeding him in the feet? Kindly advise me for best treatment."

[Poulticing the feet and keeping the horse in wet pasture field was good treatment. Would advise you to have the feet shod with heavy, well-fitted, ordinary shoes without caulks. Apply a cantharidine blister around the coronet of each foot: cantharides, three drams; vaseline, two ounces. Keep the feet moist either by bruised meal poultice, or allowing the horse to graze in wet pasture. The animal should have very moderate exercise every day. Do not bleed the feet.]

A PECULIAR CASE.

J. M., Thingvalla, N.-W. T.:—"Would you kindly advise me through your valuable paper as to the cause and treatment of the following: A mare, five years old, raised by myself, draws one side in and pulls the other side out with a jerking motion as if she were poked with a stick. Is healthy, to all appearances. Would like to know if it is 'bots.' It lasts about ten minutes. Then she closes her eyes and drops her head. Spells come on once every day?"

[The symptoms you have mentioned are either very peculiar, or they are described in such a peculiar

manner that I am unable to decide with any degree of certainty as to the true nature of the ailment. I would, however, advise you to prepare the animal for physic by feeding exclusively on bran mash diet for twenty-four hours, and then administer the following: Barbadoes aloes, six drams; calomel, one dram; solid extract of belladonna, one dram; ground ginger, two drams; soap, sufficient to form a ball. After the purgative has ceased to operate, give, morning and evening, in food for one week: Nux vomica, pulv., half a dram; nitrate of potash and bicarbonate of soda, of each two drams.]

PROBABLY RHEUMATISM.

SUBSCRIBER, Stonewall, Man.:—"Have a horse seven years old. Went lame in February in off hind leg. A few days later noticed a hollow place on the rump. Blistered the same; seemed to get all right. He then went the same way with the other leg. Blistered that also. The blistering seemed to raise the muscles, but the horse is not well. He occasionally shows lameness and holds up his hind legs in the stable. Did not work him for several weeks when blistering. Have worked him but little for the spring. He feeds well, and appears all right when run to pasture, but sweats very easily if worked, and is not keeping in as good condition as he should with the feed he consumes. Kindly advise what shall be done, and oblige?"

[Prepare the horse for a purgative, and give as follows: Barbadoes aloes, one ounce; ground ginger, two drams; treacle or soap, sufficient to form a ball. After the physic has ceased operating, give, morning and evening, in food for two weeks: Salicylate of soda, one dram; powdered gentian, two drams.]

PIGS WITH SKIN ERUPTION.

SUBSCRIBER, Simcoe Co., Ont.:—"Would you please answer the following question: I have an acre of tares and an acre of rape in the same field. When the pigs had been feeding on them for a week I noticed them getting very itchy. Some of them are very bad—the skin is all cracked along their backs. I think it must be the rape that is causing the trouble. Will it do them any harm? Some of the pigs are white, some black. It is only the white ones that are affected yet. All the grain they get is corn meal. 1. Is there anything that could be done to relieve them? 2. Could you tell me how to mix fish oil and coal oil for keeping flies off cattle?"

[1. In answer to yours of the 14th inst. re pigs, I would say that the trouble certainly is not due to the rape. I cannot speak so confidently about the tares, as I cannot call to mind instances of pigs pasturing on such. Still, I do not think it would cause a skin eruption, especially in such a short time. The condition is probably due to high feed and confinement before being turned out, though the heat of the sun hastened its development. White hogs are liable to sunburn when first turned out in hot weather. I would advise the following treatment: Feed once daily, in sloppy food, equal parts Epsom salts and sulphur, say from one to two tablespoonfuls for each pig, according to size. Dress the affected parts with raw linseed oil, forty parts; carbolic acid, one part. Dress twice daily.

J. H. REED, V. S.

Ontario Agricultural College.
2. See FARMER'S ADVOCATE, July 20th issue, page 387.]

Miscellaneous.

NOTICE.

We have decided to discontinue giving answers to legal questions, many of which we find are not of general interest. It is really no part of the legitimate work of an agricultural paper, and is not, as a rule, adopted by the best papers of this class; besides, our space has been pretty heavily taxed with questions upon agricultural and live stock, and we desire to encourage this feature by giving more prompt answers than we have been able to do in the past on account of the large amount of matter which at times accumulates in this department. Our friends, we trust, will take kindly this announcement, and not refer any more legal questions to us.

SICK DUCKS.

SUBSCRIBER, Oxford Co., Ont.:—"I had twenty ducks about half grown. They were healthy until a few days ago, when some of them would stagger around and in a few hours die. They were fed two quarts corn meal and bran, equal parts, three times a day. They had plenty of water, though not extra clean. Give cause and cure, and if feeding is correct?"

[I think the trouble is caused from a lack of grit or gravel and shade. Ducks require shade from the sun, for if it is not supplied they will sometimes stagger about and in a few hours die. They will sometimes die from lack of grit. We put a handful of grit into every two quarts of feed. Whenever we have undertaken to raise ducks without the grit, some always died as above. I would prefer one part shorts in the place of two parts bran. If the ducks are for breeding purposes, less corn meal would be advisable, as this food is very fattening. We are feeding our ducks as follows: Equal parts by measure of bran, middlings and corn meal, which is mixed dry, then moistened with skim milk. We add one handful of grit to every two quarts of food. We also give them all the green feed they will eat. Fresh water is given at every feed, which is five times daily. No water is allowed for the ducks to

swim in. I would prefer clean water to a filthy stream or pond.

W. R. GRAHAM,*

Manager Poultry Dept.

Ontario Agricultural College.]

PRACTICAL POINTERS ABOUT BEE FRAMES.

G. L. L., Prescott Co., Ont.:—"I hived a swarm of bees, and in about nine or ten days examined them and found that they had connected the frames by building their combs 'zigzagging' from end to end of the same, and that, when attempting to separate them with a knife, the combs full of honey, pollen and larvæ, fell to the bottom of the hive in a heap, and the following day the colony left for the woods. It was again caught and hived in a new hive, and in two days examined and found that the frames could not be removed, owing to pieces of comb having fallen across their bottom bars, and that while the bees were building comb from the top downward, they were also building it from the bottom upwards.

"1. What is the matter with my frames?"

"2. Is it absolutely necessary to put in foundation sheets?"

"3. Do you suppose they were nearly swarming and that the disturbance only hurried them off?"

"4. My super frames are four inches high, with an upright in the middle. Will I require foundation for these spaces, which are about 4 x 8 inches?"

"5. How soon should the super be put on after the swarm was caught?"

"6. Where can supplies be procured, and what is the probable cost of a small extractor, a smoker and foundation?"

[1. As far as the circumstances stated are concerned, there is nothing the matter with your frames. The combs dropped in the first instance because, when you attempted to separate the frames, you had to do considerable cutting and breaking of the combs, which must have partially destroyed their support, and being tender, because new and heavy with honey, pollen and brood, they fell. In the second case, I am not sure what made the combs fall, but I am guessing they had become overheated. However, if you had used good brood foundation, running 5 or 6 sq. ft. to the pound, wired into the brood frames, and well fastened to their top bars, and had your hive been painted white, protected from the sun and had an entrance clear across the front $\frac{1}{2}$ to $\frac{3}{4}$ inch deep, your combs would not have fallen, as stated; and if, in addition to the above, your hive had stood level, the bees would have built their combs straight and even in the frames.

2. It is absolutely necessary for the frames to hang plumb, and to use some kind of a foundation guide if you wish your bees to build their combs straight and even in the frames. A beginner should use full sheets in all his frames, both brood and surplus. A success can, in many cases, be made by using strips of foundation, about $\frac{3}{4}$ inch wide, and fastened to the center of the top bars of the brood frames; but only persons of some considerable experience should attempt this.

3. No. A swarm, for various reasons, will often leave its hive a day or so after being put into it, and especially if disturbed by the breaking down of its combs, as described. It is not often, however, that they will leave it as late as ten days after being hived, but such cases are by no means exceptional under such circumstances as mentioned.

4. Yes.

5. The same day, as soon as hived.

6. Beekeepers' supplies can be had of W. A. Chrysler, Chatham, Ont.; Goad, Shapley & Muir Co., Brantford, Ont.; R. H. Smith, St. Thomas, Ont.; and for the Heddon or case system of handling bees, of A. E. Hoshal, Beamsville, Ont. An extractor, such as you mention, would cost from about \$7 to \$9; a smoker, \$1 to \$1.60; brood foundation, 45c. to 50c. per lb., and section foundation, 55c. to 60c. per lb.

A. E. HOSHAL.

FITTING A BULL FOR SHOW.

E. B. PARSONS, Stanstead Co., Que.:—"What would be the best ration for my twenty-months Ayrshire bull to fit him for showing this fall?"

[Regarding the fitting of the Ayrshire bull for the fall shows, unless he is in fairly good shape now there is little enough time to put a showing bloom on him. The idea is not so much to get him fat as to have him fresh and thrifty, with the brightness of eye and mellowness of hair and skin of a horse ready for a race. To this end he should not have heavy grain-feeding, nor such as corn meal at all. While a number of suitable combinations of foods could be made, we would recommend as grain one part each of pea chop and oat cake, and two parts each of oat chop and wheat bran. This is a safe food, and can be fed liberally after he has become accustomed to it. Aftermath clover, large enough to mow, and allowed to wilt a couple of hours in the sun, then run it through a straw-cutter, would do well to mix the chop with, or bright clover hay would do well. He should get from six to eight quarts of the chop per day after a couple of weeks' feeding. He should be kept in during the day in a cool, darkened place, and allowed out in a paddock or field at night, away from other stock, so that he will remain quiet and contented. Fresh water and salt should be kept before him constantly, and he should have liberal daily grooming with brush and flannel, so as to put his skin right. His hoofs should be trimmed into natural shape and his horns cleaned up before the show. If the bull is of typical Ayrshire form and has never been stunted, he should with the above treatment be made a probable winner in good company.]



MY DEAR CHILDREN,—

I suppose you all felt very jolly when the holidays began and schoolbooks were all huddled out of sight. It is wonderful how even the tiniest little tots talked of their "zaminations" in the most businesslike way. My little niece (aged six) told me yesterday that she wished the holidays were over because she had "nothing to do and was always getting into mischief."

I have just been reading about some little Irish children who have a splendid toy to amuse them. It is a tiny train which their father made—at least, he made everything but the engine. When the children are packed closely, sixteen can ride at once in the dear little open cars.

Another family of children, living in England, also have a little train of their very own, which is even more perfect in its arrangements. It goes through a little tunnel and over a tiny cantilever bridge. The engines are worked by levers, I think—steam would be rather too dangerous.

Well, you are not likely to make anything as grand as that, but perhaps you can do something to keep the holidays from being dreary. Let us make a bargain. You get as much fun as you can this summer, then write and tell me all about it. I will give a prize for the best letter, and possibly second and third prizes if you deserve them.

"An Eavesdropper."

Do you know why "Listeners never hear any good of themselves?" I think it is because anyone who has so little sense of honor as to spy upon another, and listen secretly to what is not intended for his ears, will probably hear his own character described pretty openly if it is mentioned at all.

However, this listener is not likely to hear his own name mentioned. Did you ever see a more devoted pair of lovers? Like most lovers, they are sublimely indifferent to the world and its opinion. What do Jack and Jill care even though an eavesdropper in the shape of Peter may be just appearing round the corner? He will soon stop their billing and cooing, I know. Life is only a frolic, in his opinion, and he doesn't object in the least to his position of eavesdropper and "gooseberry."

A Thought for Every Day.

- There's many a thing for you to do, My lad, if you but knew it. That's sent to you, and only you— Don't let another do it. Don't let another lift the load Your back was meant to carry; Don't think your task were done as well By Tom or Dick or Harry. Don't say God's work can wait to-day— 'Twill do as well to-morrow; Don't put your own will always first, And count His service sorrow. Don't wait till you are strong and wise— Trust Him to gauge your burden; And then at last trust Him, my lad, To give the well-earned guerdon.

C. W. Gregory.

Our Library Table.

"MANY CARGOES." W. W. Jacobs.—"A bunch of 21 genuine old sailors' yarns which for originality of outline and uniqueness of humor could scarcely be surpassed. No general descriptions could do justice to their droll wit, intensely funny situations, and delightful surprises; nor could any one of them be chosen as typical of the lot, as each one is typical of itself."

To this portion of a recent review we may add that whether on a "holiday trip" or at home, anyone who misses reading "Many Cargoes" has missed some big, big laughs. We have not come across such fresh, breezy humor for many a long day. Copp, Clark Co., Toronto, publishers.

"THIS LITTLE WORLD." David Christie Murray.—One seldom finds so many character studies in one novel. Of course, the chief interest lies in John Cutler, who doggedly carves his way to fame, as an artist, in spite of difficulties which would drag down most men. A fine study—well drawn. Then, young Hope Whitehouse, with the phenomenal voice, makes a very sweet picture—all the sweeter because not entirely faultless, and thus so much truer to nature than those beings of rare perfection whom one never meets! The story is worked out with mastery, but it is in the individual characters that the chief charm lies. The ex-prizefighter, George Cutler, the man of enormous muscle



"AN EAVESDROPPER."

and tender heart, who loves to chat of the good old days when the "P. R." was an honored institution! His shrewish mite of a wife (these giants generally choose their opposites), who is ever rating at him, yet thinks there never was such a hero as her big, foolish George. Old Leonard Whitehouse, the dreamy bookworm, with his fine nature and his learned quotations. It does one good to read about both these men. Then the two ponderously fat men—meek Mr. Woodhall, and pompous Mr. Waddell, whose "legs flourished underneath him as if they were proud of carrying a burden so distinguished!" The gaunt and humorous Solomon Solly, with the moist eye and pendulous lip. All these are delightful, and the chapter in which they all meet at the "Dancing Bear" inn is one of the choicest bits of humor in the whole book. Other characters there are, of high and low degree, who have, perhaps, more to do with the thread of the story than those named, but they do not stand out as prominently. A book indeed worth reading. Copp, Clark Co., Toronto, publishers.

"AUNT DIANA." Rosa Nouchette Cary.—This popular authoress has written so many books, now widely known, that it is difficult to select. They have always a good purpose and generally deal with some very common faults of our weak human nature; faults, however, which can be overcome. "Aunt Diana" tells of a young girl, Alison Merle, who was being somewhat spoiled by charming and congenial surroundings; but who, at last, makes up her mind to return to home decidedly uncongenial—full of discontent and rudeness. Through earnest prayer and self-conquest, Alison bravely gains for others and herself a victory full of happy results. The works of Mrs. Cary are not of the so-called sensational type, but they are always interesting as stories and always have an aim, which should recommend them, especially to young people.

"MAUREEN, AND OTHER POEMS." Ella Wheeler Wilcox.—To many readers, the poems of this authoress are familiar. There is that in them which appeals strongly to us—beauty of thought, strength of purpose, and simplicity of language. In Maureen we find an example of sublime self-sacrifice, so complete, so noble, so sad, that we almost (in our ignorance, perhaps) feel inclined to cry that it

should not have been! There are not many women who could do as Maureen did—give up the chosen love of her heart by making him think she only regarded him as a friend; and this because he is loved by her friend, Helen, a delicate, almost dying girl. Our sympathies are so entirely with sweet and brave Maureen, that, as we hinted, we do not feel quite sure she was right, or, at least, we cannot help regretting that something did not turn up to alter things; but then we should have lost this exquisite story! The end is not for us to tell. "Maureen" must be read and its beauty digested. The other poems in this book are all worth reading, and possess much charm. Ella Wheeler Wilcox has sounded the human heart to the core, and writes with knowledge. FELIX.

Spanish Cream.

One pint milk and 1/2 box gelatine heated together; yolks of 3 eggs and 5 tablespoons white sugar beaten together and added to the above. Take off as soon as it thickens. Stir in the whites of the eggs, beaten stiff. Flavor and pour into molds.

Jokes.

CONTRIBUTED BY MISS M. E. FORSYTHE, ALBERTON, P. E. I.

An English lady who went to make purchases in Jamaica, accompanied by her black maid, was repeatedly addressed by the negro shopman as "massa," whereupon her sable follower exclaimed, with a look of infinite contempt: "Why for you speak such bad English—no grammar, sabby! Why for you call my missus 'massa'! Stupid fellah—him's a she."

As the late professor was one day walking near Aberdeen, he met a well-known individual of weak intellect. "Pray," said the professor, "how long can a person live without brains?" "I dinna ken," replied Jemmy, scratching his head. "How auld are ye yersel?"

An editor at a dinner-table, being asked if he would take some pudding, replied in a fit of abstraction: "Owing to a crowd of other matter we are unable to find room for it."

CONTRIBUTED BY F. W. ADAMS, ASSA., N.-W. T.

A farmer's boy in Scotland was brought up, charged with pushing a girl into a millpond. In pleading his case he said he did not push her in—he was only "guan to do't." Whereupon the Bailie summarily informed him that "do't and guan to do't" were all the same, and that he would have to pay a fine of 10s. or go for ten days to gaol. The boy not having the wherewithal was allowed to go and get it from a friend. In a little while he was again seen standing in court, when the Bailie asked if he had paid his fine yet. "No," said he; "but I was guan to do't, and as ye say do't and guan to do't are a't the same, I'm thinking you an' me'll be clear noo!"

CONTRIBUTED BY RUTH E. R. FORD, SMITH'S FALLS, ONT.

"HE LAUGHS BEST WHO LAUGHS LAST."

The innocent elderly gentleman who meekly submits to rough handling in a crowd may have his own method of avenging rudeness.

"Witness the experience of fifty medical students," says the Chicago Times-Herald, "who indulged in a jollification and thought themselves very smart indeed."

They were holding high carnival in a certain smoker they had taken possession of. Among the passengers was an old man—a nice old man—with white moustache and silk hat. As various stations were reached and passengers tried to get out, the students assisted. "Pass him along," was the cry, and the unfortunate passenger was lifted over heads and finally tossed on the platform.

The guards told the students to cease their rough behavior or leave the train. The admonition was unheeded. The fun grew more hilarious, until the old man with the white moustache got up to leave. "Pass him along," shouted the students. "Help the old man out!" They helped him out. They tossed him to the ceiling; they dropped him to the floor; they wedged him here, they wedged him there; they tossed him out at last, then smashed each others' hats with their canes.

At eight o'clock that night a young man came meekly to the central police station and reported an old man with white moustache, silk hat, etc., had picked the pockets of some pocketbooks.

"Please keep it out of the papers," said he, as he tipped the chief.

A WITTICISM.

Not long ago a bishop was a guest at a dinner party in B—. "By the way," said one of the guests, a woman noted for her witty remarks, "do you know that there are times when it is dangerous to enter an Episcopal church?"

"What is that, madam?" enquired the bishop with great dignity, straightening himself in his chair.

"I say there are times when it is positively dangerous to enter the church," she replied.

"That cannot be," said the bishop. "Pray explain, madam."

"Why," said she, "it is when there is a canon at the reading desk, a big gun in the pulpit, when the bishop is charging his clergy, the choir murdering the anthem, and the organist trying to drown the choir."

A hearty laugh went the round of the table at the bishop's expense, and he acknowledged that at such a time he could well imagine it disagreeable at least, if not dangerous, to be present.

HUMEROUS TIDBITS.

It is told, when Mrs. Kipling was one day punishing her little daughter for an untruthful statement, the little one sobbingly remarked: "I don't know why mamma whips me for telling a story when (Ho'ho) pappu writes such whoppers!"

A visiting physician of one of our lunatic asylums one day on entering the grounds was astonished as he approached the building to see a patient who had always been considered dangerous wandering at will over the lawn within the inclosure. Rightly conjecturing he had somehow escaped the vigilant eye of the keeper, he was in a dilemma whether to raise an alarm or try his persuasive powers. He had not long to debate, however, for on seeing what appeared to the doctor's terrified eye some murderous weapons, and proceeded to "make" for the almost paralyzed physician, and at once took to his heels. It was the end of March; everywhere was mud, and blue clay at that. The lawn had been upturned in order to put in new water pipes. Round and round, over ditch and drain, up the gravel walk they sped. Step by step the demented man gained on his victim, still brandishing that gruesome weapon. The doctor's hat was off; he had lost both rubbers; a fig for appearances! Life was sweet! Suddenly his foot caught in a pile of tile placed ready for the workmen. Horrors! The crazy man was within a foot of him now. A diabolical laugh broke from him (the lunatic) as he grabbed the other's sleeve and cried, "Tag! Tag! Ha, ha! Say, you're it!"

WINNIPEG PRIZE LIST—(Continued).
 one exhibitor (special by Sheep and Swine Breeders' Association)—A D Gamley.
LINCOLNS.—Ram, two shears or over—W T Lytle, Beaconfield. Ram, shearing—1 and 2 W T Lytle. Ram lamb—1, 2 and 3 W T Lytle. Ram lamb—1, 2 and 3 W J Lytle. Ram, any age—W T Lytle. Two ewes, aged—1 and 2 W T Lytle. Two ewes, shearings—1 and 2 W T Lytle. Two ewe lambs—1 and 2 W T Lytle. Ewe, any age—W T Lytle. Pen—Ram, two ewes and two ewe lambs—W T Lytle. Pair (special by Sheep and Swine Breeders' Association)—W T Lytle.
SHROPSHIRE.—Ram, two shears or over—1 R S Preston, Pilot Mound; 2 D E Corbett, Swan Lake; 3 Oughton Bros. Ram, shearing—1 D E Corbett, 2 Oughton Bros. 3 R D Preston. Ram lamb—1 and 2 D E Corbett, 3 Oughton Bros. Ram, any age—D E Corbett. Two ewes, aged—1 D E Corbett, 2 and 3 Oughton Bros. Two ewes, shearings—1 D E Corbett, 2 Oughton Bros. Two ewe lambs—1 D E Corbett, 2 Oughton Bros. Ewe, any age—D E Corbett. Pen—ram, two ewes and two ewe lambs—D E Corbett. Flock of one ram and three ewes, one year old or over, all to be American bred—D E Corbett. Flock of four lambs, one ram lamb and three ewe lambs, all to be American bred—D E Corbett. Pair (special by Sheep and Swine Breeders' Association)—D E Corbett.
OXFORD DOWNS.—Ram, two shears or over—1, 2 and 3 A Wood, Souris. Ram, shearing—A Wood. Ram lamb—1 and 2 A Wood. Ram, any age—A Wood. Two ewes, aged—1 and 2 A Wood. Two ewes, shearings—1 and 2 A Wood. Two ewe lambs—1, 2 and 3 A Wood. Ewe, any age—A Wood. Pen—A Wood. Pair (special by Sheep and Swine Breeders' Association)—A Wood.
SOUTHDOWNS.—Ram, two shears or over—1 and 2 W M Smith, Fairfield Plains, Ont.; 3 A B Smith, Moosomin. Ram, shearing—W M Smith, 2 W M Smith, 3 D Fraser & Sons, Emerson. Ram lamb—1 and 2 A B Smith, 3 W M Smith. Ram, any age—W M Smith. Two ewes, aged—1 W M Smith, 2 and 3 A B Smith. Two ewes, shearings—1 and 2 W M Smith, 3 D Fraser & Sons. Two ewe lambs—1 W M Smith, 2 A B Smith. Ewe, any age—W M Smith. Pen—W M Smith. Pair (special by Sheep and Swine Breeders' Association)—W M Smith.
SPECIAL BY AMERICAN SOUTHDOWN BREEDERS' ASSOCIATION.—Pen 4 lambs—W M Smith.
ANY OTHER VARIETY OF PURE-BRED SHEEP EXCEPT MERINOS.—Ram, two shears or over—R H Harding, Thorndale, Ont., with Dorset Horns. Ram, shearing—R H Harding. Ram lamb—R H Harding. Ram, any age—R H Harding. Two ewes, aged—R H Harding. Two ewes, shearings—R H Harding. Two ewe lambs—R H Harding. Ewe, any age—R H Harding. Pen—R H Harding. Pair—R H Harding.
FAT SHEEP.—Two ewes, two shears or over—1 W M Smith, 2 J Murray, 3 D E Corbett. Two ewes, shearings—1 D E Corbett, 2 Oughton Bros. Two ewe lambs—1 D E Corbett, 2 D H Preston, 3 Oughton Bros.
SWINE.
BERKSHIRES.—Boar, 2 years and over—1 R Mackenzie, High Bluff; 2 F W Brown, Portage la Prairie. Boar, 1 year and under—1, 2 and 3—F W Brown. Boar, over 6 months and under 1 year—1 and 3 F W Brown, 2 R Mackenzie. Boar under 6 months—1 and 2 R Mackenzie; 3 H L McDermott, Winnipeg. Breeding sow, 2 years or over—1 and 2 F W Brown, 3 R Mackenzie. Breeding sow, 1 year and under 2—1 and 3 F W Brown, 2 R Mackenzie. Sow, over 6 months and under 1 year—1 R Mackenzie, 2 and 3 F W Brown. Sow, under 6 months—1 and 2 R Mackenzie, 3 F W Brown. Sow, any age—1 F W Brown (Prairie Flower). Boar, any age—R Mackenzie (Proud Victor). Sow and litter of pigs under four months—1 R Mackenzie, 2 and 3 F W Brown. Herd, boar and three females—1 F W Brown. Herd, boar and three sows—1 R Mackenzie. Boar, any age—R Mackenzie. Sow, any age—F W Brown.
IMPROVED YORKSHIRES.—Boar, 1 year and under 2—A Graham, Pomeroy. Boar, over 6 months and under 1 year—1 A Graham; 2 months—1 A Graham; 2 W Hardy, Pomeroy; 3 Jas Bray. Breeding sow, 2 years and over—1 Jas Bray, 2 A Graham, 3 W Hardy. Breeding sow, 1 year and under 2—1 and 3 A B Potter, Montgomery, Assa.; 2 Jas Bray. Sow, over 6 months and under 1 year—1, 2 and 3 A Graham. Sow, under 6 months—1 A Graham, 2 Jas Bray, 3 W Hardy. Sow, any age—Jas Bray (Millie 4th). Boar, any age—Andrew Graham. Sow and litter of pigs, not less than four, under 4 months—1 Jas Bray, 2 A B Potter, 3 A Graham. Herd, boar and three females—Jas Bray. Herd, boar and three sows—Jas Bray.
CHESTER WHITES. Boar, 2 years and over—1 R S Preston, Pilot Mound; 2 K McLeod, Dougald. Boar, 1 year and under—1 W McBride, Portage la Prairie; 2 K McLeod; 3 R S Preston. Boar, over 6 months and under 1 year—1 W McBride, 2 K McLeod. Boar, under 6 months—1 and 2 K McLeod, 3 R S Preston. Breeding sow, 2 years and over—1 K McLeod, 2 R S Preston, 3 Oughton Bros. Breeding sow, 1 year and under—1 W McBride, 2 R S Preston. Sow, over 6 months and under 1 year—1 and 2 K McLeod. Sow, under 6 months—1 and 2 K McLeod, 3 R S Preston. Sow, any age—W McBride. Boar, any age—W McBride. Sow and litter of pigs—1 K McLeod, 2 Oughton Bros. Herd, boar and three sows, any age—W McBride.
TAMWORTHS. Boar, 1 year and over—1 A Bradley, Portage la Prairie. Boar, under 1 year—1 W E Baldwin, Manitou; 2 L A Bradley. Boar, under 6 months—1 W E Baldwin, 2 L A Bradley. Sow—1 and 2 L A Bradley, 3 W E Baldwin. Sow, under 1 year—1 R S Preston, 2 W E Baldwin, 3 L A Bradley. Sow, under 6 months—1 W E Baldwin, 2 L A Bradley. Sow, any age—L A Bradley. Boar, any age—W E Baldwin. Sow and litter of pigs—1 L A Bradley, 2 W E Baldwin. Herd, boar and three sows—W E Baldwin.
POLAND CHINAS. Boar, 2 years or over—1 W M Smith, 2 Oughton Bros. Boar, 1 year and under—1 W L Tramm, 2 Oughton Bros. 2 W M Smith. Boar under 6 months—1 W M Smith, 2 W L Tramm, 3 W M Smith. Herd, boar and three sows—1 and 2 W M Smith, 3 Oughton Bros. Breeding sow, 1 year or over—1 W L Tramm, 2 W M Smith, 3 W L Tramm. Sow, under 1 year—1 W M Smith, 2 W L Tramm, 3 Oughton Bros. Sow, under 6 months—1 W L Tramm, 2 W M Smith. Sow, any age—W L Tramm. Boar, any age—W M Smith. Sow and litter of pigs—1 W M Smith, 2 W M Smith, 3 Oughton Bros. Herd—boar and three sows, any age—W L Tramm. JERSEY—RED OR DUROC JERSEYS.—Boar, 1 year or over—1 W M Smith, Fairfield Plains, Ont. Breeding sow, 1 year or over—W M Smith. Sow under 6 months—1 and 2 W M Smith. Sow, any age—W M Smith. Boar, any age—W M Smith. Sow and litter of pigs, not less than 4, under 4 months—W M Smith. Herd—boar and three sows—W M Smith. ANY OTHER PURE BREED.—Boar, 1 year or over—1 and 2 K McLeod. Boar under 6 months—1, 2 and 3 K McLeod. Breeding sow, 1 year and over—1, 2 and 3 K McLeod. Sow under 6 months—K McLeod. Sow, any age—K McLeod. Boar, any age—K McLeod. Herd—boar and three sows, any age—K McLeod.
BUTTER.—Three packages under 1 year, of the same litter—1 and 2 James Glennie, 3 W L Tramm. Pig under 1 year—Oughton Bros. Pig under 6 months—1 R Mackenzie, 2 W M Smith.
DAIRY PRODUCTS.
CHEESE.—Three factory (colored), 60 pounds or over—1 Emile Dubois, Lorette, score 97 1/2 points; 2 K W Reimer, Steinbach, 96 1/2; 3 W McCaughan, St. Francois Xavier, 96 1/2.
 Three factory (white), 60 pounds or over—1 J H Ross, St. Francois Xavier, score 97 1/2 points; 2 Emile Dubois, 97 1/2; 3 K W Reimer, 96 1/2.
 Three factory (white or colored), sweepstakes—1 Emile Dubois, 97 1/2.
 Three stillton, made not previous to 1893—1 W R Curran, Guelph, Ont., score 92 points.
 Homemade whole-milk cheese—1 Mrs Alfred Baxter, Suthwyn, score 94 points; 2 Mrs Geo Moody, Morris, 93.
 Potted cheese—1 Mrs W Lewis, Plympton, score 98 points.
BUTTER.—Three packages creamery, of not less than 56 pounds each, for export, condition of package to be considered—1 Newdale Creamery, Newdale, score 97 points; 2 A A Jory, Rapid City, 96; 3 Shellmouth Creamery, 96; 4 R A Lister & Co, Brandon Creamery, 95.
 Creamery prints, 20 pounds—1 R A Lister & Co, Brandon Creamery, score 96 1/2 points; 2 Shellmouth Creamery, 96 1/2; 3 R A Lister & Co, Morris Creamery, 96 1/2; 4 A A Jory, 96.
 Assorted packages of creamery butter, 10, 20, and 30 pounds in weight—1 A A Jory, Rapid City, score 95 1/2 points; 2 J W Stephenson, Moose Jaw, 95; 3 A A Jory, Hamiota, 95; 4 Newdale Creamery Co, 94.
 Farm dairy, not less than 40-pound packages—1 Mrs F Robertson, Marquette, score 94 1/2 points; 2 Mrs E Bewell, Rosser, 94; 3 F Reid, Brandon, 93; 4 Miss Lizzie Scott, Meadow Lea, 93.
 Farm dairy, 20-pound packages—1 Mrs F Robertson, score 96 points; 2 John Rolston, Rapid City, 95; 3 I Scott, Marquette, 95 1/2; 4 Mrs E Bewell, 94 1/2.
 Farm dairy, one-pound prints, not less than 10 pounds—1 Geo White, Springfield, score 96 points; 2 D Sutherland, Suthwyn, 95; 3 Harvey Johnston, Logan, Iowa, 95; 4 D W McIvor, Winnipeg, 95 1/2.
 Butter made for table use—1 Miss Lizzie Scott, Meadow Lea, score 96 points; 2 I Scott, 95 1/2; 3 Mrs W B Hall, Headingly, 94.
 Farm dairy, not less than 20 pounds, made by farmer's wife or daughter—1 C W Pritchard, Oak Point, score 96 1/2 points; 2 A Cumming, Lone Tree, 96; 3 Mrs Alex McRae, Turtle River, 95; 4 Mrs F Bewell, 94.
 Twenty pounds, made by dairymaid under 18 years of age—1 Miss E Bewell, Rosser, score 96 points; 2 W V Edwards, Souris, 95.
 Sweepstakes, best farm dairy butter on exhibition, packages or prints (gold medal)—1 C W Pritchard, Oak Point, score 96 1/2 points.
 Sweepstakes, best creamery butter on exhibition—1 Newdale Creamery Co, score 97 points.
FIELD GRAIN, ETC.
 Twenty-five bushels Red Fyfe wheat, grown in Manitoba or N-W T—1 H Coates, Pomeroy, 2 A E Mellon, Portage la Prairie. Red Fyfe wheat, 5 bushels—1 H Coates; 2 N Martin, Wascana; 3 J E Vernon, Thornhill; 4 W Jaffray, Elkhorn. Red Fyfe wheat, 2 bushels—1 A G Campbell, Argyle; 2 H Coates, 95 1/2.
 1 C O White, St. Charles. Six-rowed barley, 2 bushels—1 D W McIvor, Kildonan; 2 John Rolston, Rapid City; 3 H Coates. Two-rowed barley, 2 bushels—1 A Baxter, Suthwyn. Rye, 2 bushels—1 Wm Stephen, Virden; 2 John Rolston. Oats, white, 5 bushels—H S Garrioch, E Drury. White milling oats, 10 bushels—1 H S Garrioch, Portage la Prairie; 2 E Drury. Oats, black—1 J Rolston. Flax seed—1 and 2 W E Baldwin, Manitou; 3 D Fraser & Sons, Emerson. Buckwheat—1 W M Smith, 2 G Tocher, Balmoral. Peas, large—1 A B Potter, Mont gomery, Assa.; 2 C O White. Peas, small—1 J W White, White beans—1 J Rolston. Field beans—1 G T Chapman, St. James. Flint corn—1 W M Smith, 2 John Rolston.
GRASS SEED.
 Timothy seed—1 W M Smith, 2 A Baxter, 3 J J Bray. Austrian Brome—1 F W White. Native rye grass—1 K McIvor. Virden. Hungarian grass seed—1 W M Smith. Hemp seed—1 John Rolston. Hops, native—1 J Rolston, 2 H S Garrioch. Sunflower seed—1 Wm Smith, 2 John Rolston, 3 Geo. Tocher. Collection of cultivated grasses—1 N E Watts, Woodroyd; 2 G Tocher. Collection of native grasses—1 E Drury, 2 N E Watts.
FRESH FRUIT, PRESERVES, ETC.
 Currants, black, not preserved—1 J Bacon, Winnipeg. Currants, red, not preserved—1 J Bacon, 2 L W Palmer, Winnipeg; 3 B J Hood, Winnipeg. Currants, white, not preserved—1 B J Hood; 2 Dr DuVal, Winnipeg; 3 J Bacon. Gooseberries, not preserved—1 B F Hillis, Winnipeg; 2 Mrs G Mitchell, Winnipeg; 3 L W Palmer. Strawberries, not preserved—1 W H Tomalin, Kildonan. Cultivated fruit preserves—1 R Gunn, Dougald; 2 Mrs F Clark, Winnipeg; 3 Mrs B F Hillis. Wild fruit preserves—1 Mrs B F Hillis, 2 Mrs Emma Bushnell, Bird's Hill, Jellies, collection—1 Miss Emma Bushnell, 2 Mrs B F Hillis, 3 E M Pritchard. Fruits, canned, collection—1 Mrs B F Hillis; 2 W S Lister, Middlechurch; 3 H O A Yeast, Middlechurch. Raspberry vinegar—1 Mrs A Brown, 2 Mrs D B McKee, 3 Mrs A Brown. Homemade wines—1 Mrs B F Hillis; 2 Mrs A Brown; 3 Miss E Bushnell. Pickles—1 Blackwood Bros, Winnipeg; 2 Mrs D G McBain, Winnipeg; 3 Mrs B F Hillis. Catsup—1 Blackwood Bros.

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The 20 Century Washing Compound for all kinds of washing
LATEST, CHEAPEST, BEST.

Surpasses All Others in Washing Woodwork or Boiling Clothes.

It only requires to be tested to be appreciated. Warranted to do its work without injury to the hands or clothes. Contains no acid, no potash. Each package contains a coupon. Return those to your grocer and get a picture. With twenty coupons we present you one of our 14 x 17 pictures, framed; or, with fifty coupons, one of our 18 x 20 pictures, framed, or with twenty coupons and 50c. cash. Pictures can be seen at all grocery stores. Don't fail to try the wonderful labor-saver and be convinced!

.. MANGE CURE ..

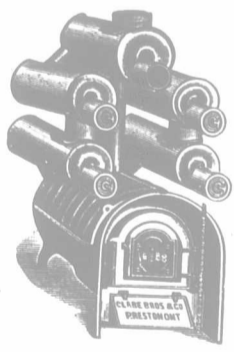
Don't stand by and see your horses and cattle fail to skin and bone with that simple disease which is a mystery to so many farmers and cattle dealers in our Northwest country, which is nothing more than Mange, and can be permanently cured by our wonderful discovery, Yells' Combination Mange Cure. Follow the directions closely, and we will guarantee to cure the worst cases with three applications. We will send to any reliable man and parties. Boxes to be given on trial. No cure, no pay. Remember, all our goods are guaranteed.

WE LEAD THE WESTERN TRADE

IN ALL KINDS INKS, OILS, SOAPS, WASHING POWDERS, TINCTURES, LIQUIDS, GLUE, MUCILAGE, STOVEPIPE VARNISH, STOVE LEAD BAR, HARNESS OIL DRESSING, FINE STOVE OIL DRESSING, SHOE BLACKING, CEMENTS, EXTRACTS, CHEMICALS, PATENT MEDICINES, ETC. MANUFACTURED SOLELY BY

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Hilborn Wood Furnaces

This Furnace has been on the market for the past fifteen years, and has given the very best results. DURABILITY is attained by a proportionate arrangement of weights; EFFICIENCY by means of the immense radiating surface, and EASE OF MANAGEMENT by provision for easy cleaning. Send us a rough sketch of your house, and we will send you estimates and advice.

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SPECIAL FORM PASTEUR BLACK-LEG VACCINE—SINGLE APPLICATION.

All ready for use. No mixing, no filtering, no "outfit" or syringe required. Supplied in packets of three sizes: No. 1 (10 doses), \$1.50; No. 2 (20 doses), \$2.50; No. 3 (50 doses), \$6.00, including needle for applying.

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Condensed Time Table from Winnipeg. MAIN LINE. Morris, Emerson, St. Paul, Chicago, Toronto, Montreal, Spokane, Tacoma, Victoria, San Francisco. Lv. Daily 1.45 p.m. Ar. Daily 1.05 p.m.

HOTEL LELAND

The Leading Hotel of the West. ALL MODERN CONVENIENCES. RATES, \$2 TO \$4 PER DAY. W. D. DOUGLAS, Prop., Winnipeg, Man.

10 SHORTHORN BULLS 10

By Indian Statesman = 23004 =, from 10 to 20 months. Twelve young cows or heifers with calves by side or in calf. Twelve ram and 20 Shropshire ewe lambs, sired by (Imp.) Flashlight. Also, Berkshire boars and sows, all of which will be sold at moderate prices.

SHORTHORNS 9 BULLS, 4 HEIFERS,

Mostly Scotch-bred, and got by such bulls as Kinellar Sort (Imp.), Northern Light (Imp.), Prince and Prince Bismark. Prices right. Correspondence Solicited, and Visitors Welcome. G. A. BRODIE, Stouffville Stn., G. T. R. BETHESDA, ONT.

SHORTHORNS

I have six young females for sale - three are in calf and three old enough to be bred. These heifers have four or more crosses of the finest Booth sires, in imported Marr and Gordon Castle foundation, a desirable and needed line of breeding. D. ALEXANDER, Brigden, Ont.

BONNIE BURN STOCK FARM

Carries Isabella, Strawberry, and other noted Shorthorn strains, on which has been employed such sires as Kinellar sort (Imp.) and Northern Light (Imp.), Shropshires and Berkshires. Farms within sight of station. D. H. RUSSELL, Stouffville, Ont.

HAWTHORN HERD

OF DEEP-MILKING SHORTHORNS. 3 heifers bred to Blue Point, 2 to ... of first-class quality and ... Wm. Grainger & Son, ...

GOSSIP.

Mr. Arthur Johnston, Greenwood, Ont., sailed for Scotland July 14th, presumably with the intention of importing Shorthorn cattle, if he finds what suits his critical judgment.

Messrs. H. Cargill & Son, Cargill, Ont., have through Mr. Sylvester Campbell, Kinellar, purchased and shipped six fillies and colts to Canada. Amongst them are three well-bred ones from Balmedie, and three from other studs in Aberdeenshire, got by Sir Everard (5353), Prince of Carruchan (8151) two, Royalist (6242) two, the sire of that lovely mare, Balmedie Queen Mab, which stood reserve for the female championship at the Highland; and Royal Alexander (5997), the Dumbartonshire and Fyvie premium horse. These are all out of well-bred mares, the other studs being drawn on besides Balmedie being those at Smiddyburn, Tulloford, and Coullie.

Mr. R. G. Howgate, Toronto, recently purchased from Mr. Walter S. Park, Halton, and shipped to-day to Canada, three well-bred Clydesdale stallions, Arlethen Fortune (10305), Royal Erskine (10431), and Sir Marengo (10462). All these were bred in the north, and are well adapted for the foreign trade.

NOTICES.

"The Reaper King." - With the above words a writer in the Philadelphia Saturday Evening Post heads a graphic article on Cyrus H. McCormick and the great McCormick reaper works of Chicago, being one of a series of sketches of "American Kings and their Kingdoms." It traces back the development of the modern binder to the old reaper invented by the late Cyrus Hall McCormick and successfully operated on a farm near Steel's tavern, Virginia, 1831.

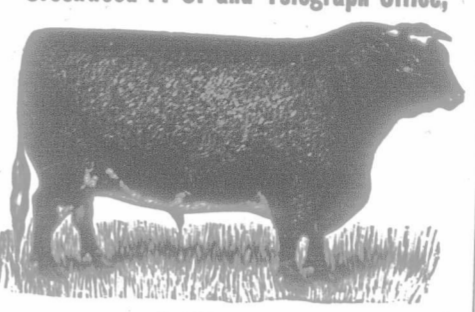
Little's Sheep Dip and Cattle Wash. During a recent visit in the northern part of Grey Co., Ont., one of our representatives called upon Mr. Robert Wightman at his place of business, Owen Sound, and found him, as usual, busily engaged in dispensing to the ailments of the human race, to say nothing of the attention he is required to bestow upon Little's Sheep Dip and Cattle Wash, for which he is the Canadian representative, and from the enthusiasm exhibited by Mr. Wightman and his stock and facilities for doing business, we were compelled to believe that he is enjoying a great portion of the sheep-dipping patronage.

Good for Enlarged Tendons. St. John, N. B., April 29th, 1897. The Lawrence-Williams Co., Cleveland, Ohio: The bottle of Gombault's Caustic Balsam you so kindly sent me in November, 1896, I have used on my horse for enlarged tendon, and found it to work to my entire satisfaction, and would recommend it to all horsemen instead of using the firing irons, as it has an even better result. R. OSHAUGHNESSY.

Scotch Shorthorns For Sale:

90 HEAD TO SELECT FROM. We are offering a number of cows and heifers (including some show heifers), from such sires as Valkyrie 21806, Young Abbotsburn's Heir 15917, and Imp. Mariner 2720, served by Imp. Diamond Jubilee (441) now at the head of herd. 14 and 1 mile north of town. T. DOUGLAS & SONS, Strathroy Station and P. O.

ARTHUR JOHNSTON



15 SHORTHORN BULLS FIT FOR SERVICE; 3 IMPORTED. 25 COWS AND HEIFERS Including 9 recently imported heifers. Prices right. Catalogues on application. Clarendon Station, C. P. R. Pickering Station, G. T. R. "NO BUSINESS, NO HARM."

W. D. FLATT



Twenty-two Shorthorn Bulls CHOICE from three to fifteen months old. Persons requiring show bulls can be supplied from this bunch.

20 COWS AND HEIFERS served by imported bull, Golden Fame = 20556 =. Farm 6 miles from Hamilton. Catalogue sent on application. Visitors met at G. T. R. or G. P. R. if notified. Prices consistent with quality. Inspection invited.

SPRING GROVE STOCK FARM

Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Imported Blue Ribbon = 17095 = and the famous Money-fuffel Lad = 20521 =. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply to T. E. ROBSON, Ilderton, Ont.

SPRINGHURST SHORTHORNS

Herd bred for practical usefulness, and produces as large a proportion of top show cattle as any herd in Ontario. Young stock, both sexes, for sale. Exeter Station, G. T. R., half mile from farm. H. SMITH, HAY, ONT.

River Bow Stock Farm.

B. SNARY & SONS, CROTON, ONT., Breeders of Shorthorn Cattle, Poland-China and Chester White Swine. We offer for sale seven good young bulls, from seven to twelve months old; eight heifers of choice quality and breeding. Sired by Chief Captain. Pigs of both sexes and all ages at moderate prices, quality considered.

SCOTCH SHORTHORN BULLS AND HEIFERS

HERD ESTABLISHED IN 1872. Such sires as imported Royal George and imported Warfare have put us where we are. A. & D. BROWN, ELGIN COUNTY, IONA, ONTARIO.

Nine Clydesdale Stallions

Just landed from Scotland; also a few imp. and home-bred Shorthorn females. JOHN ISAAC, KINELLAR LODGE, MARKHAM, ONT. MEADOWSIDE FARM, J. YULL & SONS, Props., Carleton Place. Breeders of high-class, deep-milking Ayrshires, Sweepstakes young herd at Ottawa, Shropshire sheep from prizewinning stock, Berkshire pigs and Barred Plymouth Rocks. Young stock for sale. Visitors met at Queen's Hotel. Give us a call.

W. F. STEPHEN

Breeder and importer of choice and fashionable Ayrshires from deep-milking strains. Two bull calves for sale. Write or come to BROOK HILL FARM, Carr's Crossing, G. T. R. om Trout River, Que.

MAPLE CLIFF Dairy and Stock Farm.

Ayrshires, Berkshires, Tamworths. Three young bulls fit for service, and bull calves. Booking orders for spring litters. R. REID & CO., HINTONBURG, ONT. Five minutes' walk from Cen. Expl. Farm, Ottawa.

Choice Ayrshires for Sale.

Herd now headed by Royal Star of St. Ann's, 1st prize two-year-old at Toronto, 1st and sweepstakes at London, 1898. For sale: One fine bull calf seven months old, sired by a Morton bull; also younger ones, sired by Royal Star. Cows, fresh milkers, and cows due to calve in August; No. 1 stock; size, constitution, dairy and show combined; also heifer calves at reasonable prices. All kinds of Cochins and Brahmas, B. P. Rocks, B. and White Minorcas. Write for prices and full particulars. WILLIAM THORN, Trout Run Stock Farm, Lynedoch, Ont.

Ayrshires for Sale.

The kind that can speak for themselves. Size, constitution, dairy and show combined. Six young bulls for sale, by Glencairn 3rd (Imp.), dam Primrose (Imp.). Five from Napoleon of Auchinrain (Imp.). Their dams are all Glencairn heifers. Five of their dams were shown last fall at Toronto, London, and Ottawa. Also a few good cows. No culls sold. JAMES BODEN, TREDINNOCK FARM, STE. ANNE DE BELLEVUE, QUE.

CHOICE AYRSHIRE BULLS

Four calves dropped in August, October, December and March, and sired by Craigieles of Auchinrain (Imp.), first prize bull at Toronto in 1897 (the only time ever shown). W. W. BALLANTYNE, Formerly Thos. Ballantyne & Son, Stratford, Ont. "NEIDPATH FARM" adjoins city, main line G.T.R.

Ayrshire Bull Calves of 1899

3 YET on hand, and more to come within the next month, from some of our best imported cows. Will sell at reasonable prices. Address: ROBT. HUNTER, Manager to W. W. Ogilvie, LACHINE RAPIDS, QUE.

Jersey Cattle

THAT WILL PUT MONEY IN YOUR POCKET. Mrs. E. M. Jones, Box 324, BROCKVILLE, ONT., CAN.

BRAMPTON JERSEY HERD.

Offering high-class A. J. C. C. cows and heifers in calf, and heifer calves; 9 choice young bulls. High-grade cows in calf; and Berkshires. B. H. Bull & Son, BRAMPTON.

S. WICKS & SONS

MOUNT DENNIS, ONT., Offer two Registered A. J. C. C. Jersey Yearling Bulls. These are grand youngsters; cheap if sold at once. We have also some fine Registered C. K. C. Collie Pups; also some fine young Registered Bitches. Manufacturers of the Skee Hot Water Incubator. Hatches 100 per cent. The best and most scientific incubator in the market.

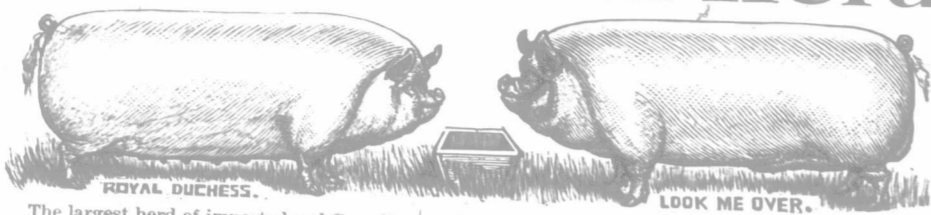
FOR SALE!

JERSEY BULL, THREE YEARS OLD, A GRANDSON OF THORLINE, THE SECOND RICHEST COW IN THE WORLD, ALSO TWO YEARLING SHORTHORN BULLS AND A FEW CHOICE YOUNG BERKSHIRES. S. DYMENT, BARRIE, ONTARIO.

GLEN ROUGE JERSEYS.

WILLIAM ROLPH, Markham, Ont., offers twelve Jersey Bulls and Heifers (pure St. Lamberts), out of tested cows. Grand individuals. Prices right. HOLSTEIN BULLS that we think you will want when you know their breeding, and the large OFFICIAL milk and butter records of their nearest ancestors. Six of them are sired by a son of our great cow, Korndyke Queen, others by sons of De Kol 2nd, and some by Manor De Kol. Heifers and young cows of equal breeding. It's better to buy the best. We furnish papers to pass them through without duty or detention. There is no quarantine. Write for just what you want. Henry Stevens & Sons, Lacoma, N. Y. PLEASE MENTION FARMER'S ADVOCATE.

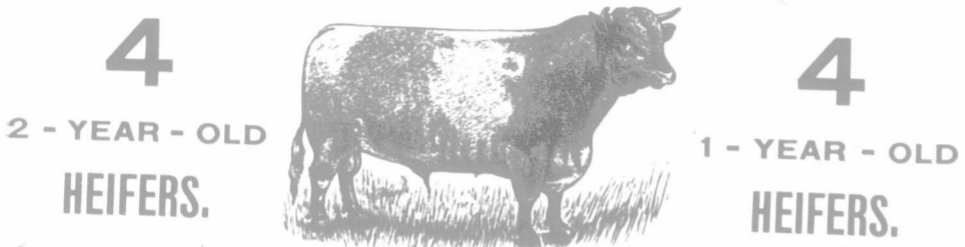
Summer Hill Herd



The largest herd of imported and Canadian-bred YORKSHIRES of the large English type in Canada. Twenty-five matured sows, among them being several Royal winners. Six imported sows sired by Ruddington Lad, Royal winner and gold medal boar for the best pig of the white breed. Have three imported stock boars bred by such noted breeders as Sanders Spencer and Philo L. Mills. Twenty-five April pigs (imported) of both sexes for sale. Also a number imported in dam. Two hundred Canadian-bred pigs of all ages for sale. Write for prices. Personal inspection preferred. I prepay express charges, and guarantee stock as described.

D. C. FLATT, MILLGROVE, ONT.

2 Imported Shorthorn Bulls 2



HEIFERS ALL IN CALF TO IMPORTED BULLS.

H. CARGILL & SON, CARGILL, ONT.

PURE-BRED GUERNSEY CATTLE

Chester White Swine. Duroc-Jersey Swine.

FOR SALE—Two young Bulls ready for service, and Heifers bred. First-class Pigs of all ages from imported and prize-winning sires and dams. Twenty head of HOLSTEINS for sale. Write for particulars and prices to WM. BUTLER & SONS, DEREHAM CENTRE, ONT.

INGLESIDE HEREFORDS. UP-TO-DATE HERD OF CANADA!

TAMWORTHS CHOICE PIGS SIX TO SEVEN WEEKS OLD.

H. D. SMITH, COMPTON, QUE.

F. W. STONE ESTATE, GUELPH, ONTARIO.

The first Hereford herd established in Canada by importations in 1850 of the best prize-winners of England, followed by repeated further importations, including winners of first prize at Royal Agricultural Show. Choice young Hereford Bulls for sale. Also McDougall's Sheep Dip and Cattle Wash, fresh imported, non-poisonous and reliable; thoroughly tested by over forty years' use on farms of above estate.

GUERNSEYS Two Choice Bull Calves AND Five Heifers for Sale.

Tamworth and Berkshire Pigs.

W. H. & C. H. McNISH, LYN, ONT.

PINE GROVE FARM HERD OF LARGE YORKSHIRES.

Imported and Canadian-bred, from the Hasket family, which has taken more prizes at the leading fairs in Canada and the World's Fair at Chicago than any other family of Yorkshires in America. Young boars and sows fit for breeding for sale. Correspondence solicited, which will receive prompt attention.

JOSEPH FEATHERSTON, Streetsville, Ont.

SPRING OFFERING Yorkshires AND Berkshires

A fine lot of boars and sows eight weeks old. Pairs and trios supplied, not akin, of the best breeding and individual merit. A number of Yorkshire boars fit for service, and fine lengthy sows in pig to an imported boar. Berkshires, all ages, quality of the best. Write H. J. DAVIS, BOX 290, WOODSTOCK, ONT.

OXFORD HERD OF POLAND-CHINAS

The home winners of the world. Headed by the imported boars, Conrad's Model and Klondike, assisted by Bacon Boy and Lennox. Has won 64 out of a possible 69 first prizes. Stock of all ages for sale. Write for prices or come and see.

W. & H. JONES, OXFORD CO., MT. ELGIN, ONT.

DUROC - JERSEY SWINE

We have a fine lot of all ages and either sex. Address: TAPE BROS., Ridgetown, Ont.

GOSSIP.

OUR "GROWING TIME."

The new Canadian Government steamer, "Minto," was launched at Dundee on July 12th. Mrs. Robertson, wife of Prof. Jas. W. Robertson, performed the christening ceremony, and at the accompanying banquet the Professor, in proposing the toast, "Prosperity to the shipbuilding and shipping interests," said that Canada was greatly prospering, and would require ten new steamers yearly to carry out her increased products.

RECENT SALES MADE BY MR. W. D. FLATT, HAMILTON, ONT.

Mr. W. D. Flatt, of "Trout Creek Stock Farm," has recently made the following sales:— To Jas. Yule, manager for the Hon. Thos. Greenway, Crystal City, Man., Clara 33rd (imp.), 2-year-old heifer, of excellent quality; Village Blossom, red yearling, good enough to show in any company; Red Rose (imp.), 2-year-old, possessing strong Shorthorn character, an exceedingly good milker; Dreyfus, a 7-month roan bull; this is a really good calf, and in the hands of Mr. Yule should develop to be a winner in any company.

To W. T. Miller, Carlos City, Ind., Cecil Lady (imp.), an excellent 3-year-old, she being a remarkably heavy milker; Trout Creek Clean Alpine, a very promising red bull calf; Lustre 18th (imp.), a 2-year-old heifer, with superb quality.

To W. G. Pettit & Son, Freeman, Ont., fourteen 2-year-old (imp.) heifers, four yearling heifers, one yearling bull, and one 2-year-old bull, making twenty head in all. The above were selected by Mr. Geo. Campbell, Kinellar, Scotland, whose experience, while assisting his father in the management of the famous old herd at Kinellar is the best guarantee that the lot is composed of animals of the right sort. There are five red heifers got by the Gordon Castle bred bull, New Year's Gift, and out of Jealousy, Mysie, Minerva, Lily of Towie, and Lady Annie families; the Jealousy 2-year-old red heifer, Rose of Towie 3rd, is an exceptionally wide-topped, good heifer, whose grandam, Japonica 4th, was got by the Highland Society prize bull, Lord Chelmsford, to whom a number are closely related. The roan heifer, Coquette, is a particularly well-bred heifer, that will satisfy the most critical judges, showing great wealth, good shape and constitution. There were two heifers from Neither Augustown—one, the Mary Anne, got by Maximus, tracing back to the old Kinellar Minas. Crabston Beauty 5th is also an exceptionally good heifer, descending from the Kinellar bred cow, by Young Pacha. Muriel, a nice, low-standing, sweet heifer, with good top and attractive Shorthorn character, got by Star of Lancaster. This is a very choice specimen of the late Mr. Sylvester Campbell's highly-esteemed Mina family, so full of old Siltyston blood, her grandam being got by the noted bull Gravesend. Lily and Rosie are two exceptionally good yearlings, with lots of Cruickshank blood in them. The two-year-old bulls, Matabale Chief, bred by Mr. Wilson, Pirriessmill, and out of Meadow Queen, by the noted sire Boulevard, a fine, lengthy bull, good top and ribs; the yearling bull, Red Light, bred by Mr. J. Black, Barthelchapel, by the Upper Mill sire, Capt. Ripley, and from the noted roan Castle Lustre tribe, this being a very sweet-topped, level bull, showing very good character. Among this lot there are seven straight Cruickshank pedigrees, the balance being Scotch. They will compare in breeding with any importation. They have not been highly done in Scotland, and are only in moderate condition. The greater number of the females have been bred to Count Aramant, he being bred by Mr. Duthie, and Mr. Campbell paid Mr. Duthie \$500 for him when a calf. This gives Mr. Pettit now a very large herd of both imported and Canadian-bred stock, and I feel satisfied this acquisition cannot help but prove profitable to him.

To George Harding & Son, Waukesha, Wis., eight head, comprising the following: Daisy of Strathallan 13th, a red 5-year-old cow; Eurilla, a roan 7-year-old cow; Trout Creek Lady, 3-months-old calf; Missie of Neidpath 20th, a 4-year-old cow; Maid, 3-year-old roan cow; Alice (imp.), a 3-year-old cow; Nonpareil 33rd (imp.), a year-old red heifer. Mr. Harding has in this bunch a choice lot of profitable individuals, both as regards pedigree and quality. Of the animals, I consider Missie of Neidpath 20th the most valuable cow in Ontario; in fact, every one of them are worthy of comment. Eurilla, Missie of Neidpath 20th, Maid, and Daisy of Strathallan 13th, have produced the choicest calves in my herd the past season. I still have Missie of Neidpath 20th's and Maid's calves; they are both promising enough to make show bulls. Eurilla's calf Mr. Harding takes with him. Without a doubt she is a most remarkable one, and has been pronounced by competent judges one of the very best things in my herd.

To C. Hintz, Fremont, Ohio, Mina Lass 10th, a dark roan 2-year-old. This is a show heifer, and choice bred. Mr. Hintz has purchased her to fill up his herd for exhibition purposes.

NOTICE.

The Reliable Feed Cooker advertised in this issue Rippley Hardware Co., Grafton, Ill., seems to be winning its way to popularity wherever introduced. It is inexpensive, economical of fuel, and convenient. It is in use on several Canadian stock farms, where its merits are highly proclaimed. The following testimonial from a reliable man speaks volumes for the cooker:

Rippley Hardware Co., Grafton, Ill.: Gentlemen, After using your cooker for over a year, I can say that it is all right and will do all you claim for it. I use it every day to wash milk for the calves and heat water to wash cans and pails, and by burning the steam into them they are thoroughly cleaned. Can boil water in a few minutes to scald hogs in. I cook feed and warm water for the hogs at a distance of 50 feet from the cooker. I use a high gas-pipe to carry the steam where I want it. My cooker takes the place of two tank heaters, as I heat the water in two stock tanks with it; one of them is 120 feet from cooker and it works all right, and did when the thermometer stood 22 degrees below zero. I am well pleased with the cooker and do not see how I could get along without it.

S. M. HENDERSON, Breeder of Polled Durham Cattle, Waterman, Ill.



Persicatic Sheep and Animal Wash

A powerful non-irritant and healing preparation that is proving a boon to farmers all over Canada for sheep and cattle ailments, such as Ticks—Maggots—Gangrene—Shear Cuts—Red Lice on Sheep—Parasites—Ringworm—Bruises and Scab. Full directions on every can. Cures the worst cases, and makes the skin healthy and whole. The most effective and economical dip on the market. If your dealer can't supply you, write us direct for it, and if there's anything out of the ordinary in the ailments of your flocks and herds we'll be pleased to give free any additional advice in the matter.

THE PICKHARDT RENFREW CO., Limited, STOUFFVILLE, ONT.

MILK FEVER CURE.

IT is now KNOWN that the udder is the seat of milk fever. Schmidt's udder injections CURED 90 per cent. of the first 412 cases treated. Treatment for 1 severe or 2 mild cases, with instrument (specially designed for the purpose) and full printed instructions by mail, \$3.00. Extra bottle for 1 severe or 2 mild cases, \$1. Extremely simple. No drenching.

JOHN SPENCER, v.s. Bowmanville, Ont.

Hampshire Down Sheep.

SPLENDID MUTTON. GOOD WOOL. GREAT WEIGHT.

This highly valuable English breed of sheep is unrivaled in its rapid and wonderfully early maturity, possessing, too, a hardiness of constitution adapted to all climates, whilst in the quality of

MUTTON AND LARGE PROPORTION OF LEAN MEAT IT IS UNSURPASSED.

Full information of JAMES E. RAWLENCE, Secretary, Hampshire Down Sheep Breeders' Association, SALISBURY, ENGLAND.

The Danesfield Pedigree Stock

IMPORTERS desirous of securing selections of either Shire horses, Aberdeen-Angus cattle or Hampshire Down sheep should inspect the stud, herd and flock, property of Mr. R. W. Hudson, which are kept in the highest degree of purity that care and selection can produce at Danesfield, Marlow, Bucks, England. Specimens of horses, cattle and sheep have been largely exhibited at the principal English shows during 1899 with very prominent success. For full information, etc., apply:

MR. COLIN CAMPBELL, ESTATE OFFICE, DANESFIELD, MARLOW, BUCKS, who will be happy to make arrangements for inspection, or to quote prices.

W. W. Chapman,

Secretary of the National Sheep Breeders' Association, Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society.

Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered. Address: FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W. Cables—Sheepcote, London.

ESTABLISHED 1889
BELLEVILLE BUSINESS COLLEGE
BOGLE & JEFFERS, PROPRIETORS.

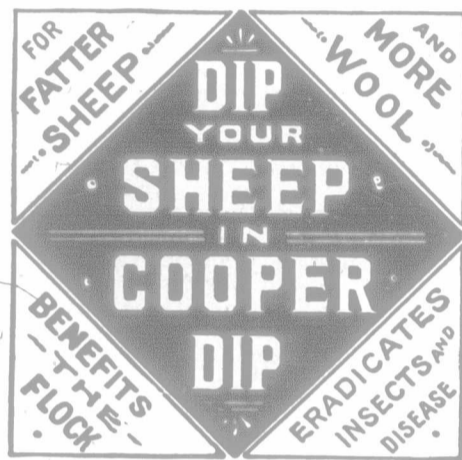
Students have a **LARGER EARNING POWER** who acquire the following lines of preparation under our efficient system of training. IT HAS NO SUPERIOR.

1. Bookkeeping.
2. Shorthand.
3. Typewriting.
4. Telegraphing (Commercial and Railway Work).
5. Civil Service Options.

Students may commence telegraphing on the first of each month, and the other departments at any time.

J. FRITH JEFFERS, M. A., Principal.

Address: BELLEVILLE, ONT.



Used and endorsed by Hon. John Dryden, Minister of Agriculture, Toronto, Ont., and leading breeders everywhere.

SUPERIOR TO ALL LIQUID DIPS.
Twenty-five gallon packet, 50c.; one hundred gallon packet, \$2.00. If druggist cannot supply, send \$1.75 for one hundred gallon packet to

EVANS & SONS, MONTREAL OR TORONTO.

Book premiums on application to Cooper Dip, Galveston, Texas.

SCABBY SHEEP. \$5000 REWARD

To any party who can produce a scabby sheep which the Lincoln Dip will not cure. Write for particulars.

LINCOLN SHEEP DIP CO.
48 and 50 Long St., CLEVELAND, O.
om 15 Queen St. East, TORONTO, ONT.

FALL TERM OPENS SEPT. 5TH.

CENTRAL Business College
STRATFORD, ONTARIO.

Write to-day for our new catalogue. It's the finest business college catalogue in Canada, and represents the most progressive and best school.

om **W. J. ELLIOTT, Principal.**

FOR 60 DAYS MY ADDRESS WILL BE

GEORGE HOTEL, Shrewsbury, Eng.

Orders for high-class **Sheep AND Cattle** will receive careful attention. Sheep imported by me have won more premiums in eight years than all other importations combined.

om **ROBERT MILLER, Stouffville, Ontario.**

HENRY ARKELL, ARKELL, ONTARIO.
IMPORTER AND BREEDER OF

OXFORD-DOWN SHEEP.

Animals of all ages and both sexes for sale. Have some imp'd **RAM LAMBS.** Prices reasonable.

SHEEP BREEDERS' ASSOCIATIONS.

American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEVERING, Secretary, Lafayette, Indiana.

Dogs. SCOTCH COLLIE PUPS, 4 months old, from best stock, \$5.00 each. Also one Bitch, a beauty. **G. A. HULL, St. Catharines, Ont.**

THE ONTARIO VETERINARY COLLEGE (LIMITED),
TEMPERANCE ST., TORONTO, CANADA.

Affiliated with the University of Toronto.

Patrons: Governor General of Canada, and Lieut. Governor of Ontario. Fee, \$65.00 per session. Apply to **ANDREW SMITH, F.R.C.V.S., Principal.** 1823-om

GOSSIP.
In writing to advertisers, mention the "Farmer's Advocate."

DANESFIELD SHIRES, POLLED ANGUS, AND HAMPSHIRE.

With this issue commences the advertisement of Mr. R. W. Hudson's pedigree stock, kept at Danesfield, Marlow, Bucks, England. The classes of stock kept are Shire horses, Polled Angus cattle and Hampshire-down sheep, all of which are popular in England and wherever else they are known. The stock interests at Danesfield are well conducted along lines to promote the most perfect types of the various breeds, keeping ever in view the best blood lines. The stud, herd and flock have been quietly and substantially built up to a place where they have been able this year to command high honors in leading showings. Persons wishing to import Shires, Angus or Hampshire stock should write the manager, Mr. C. Campbell. See their advertisement.

WM. THORN'S AYRSHIRES AND POULTRY.

While in the vicinity of Lynedoch, Ont., a representative of the FARMER'S ADVOCATE called upon Mr. Wm. Thorn and took a hasty run through the stock, finding the Ayrshires in their usual good form. Mr. Thorn laid a wisely selected foundation in purchases made at the dispersion sales of Messrs D. Morton & Son, Hamilton, and the late Thos. Guy, Oshawa, selecting cows with a view of establishing a dairy herd of high order, and in that selection he not only attained the end desired, but has been able to win many of the best local prize offerings at the fall exhibitions in strong competition. Upon examining their pedigrees we found that he had been equally careful in the selection of sires, and at present the young bull, Royal Star of Ste. Anne's 7616, by Glehcain 3rd (imp.), and out of Margie of Williamstown 5659, is in the herd, Mr. Thorn making his selection when in search of a right good one, and as he proved himself capable of landing the first at Toronto, as well as first and sweepstakes at London, we judge he did not get a bad one. Fourteen females, half of which are matured cows, compose the herd, and are making good progress towards the showyards for the fall.

In the poultry department much advance has been made since our last visit. A fine new poultry house, 20x75 feet, constructed upon the most modern ideas, was erected, and though not yet completed, is a great help in producing choice stock. In the pens we found Light and Dark Brahmas, White, Buff, Black and Partridge Cochins, White and Black Minorcas and Barred Plymouth Rocks, and as with the Ayrshires so with poultry, the best is none too good for Mr. Thorn.

MORE SHORTHORNS FOR MICHIGAN.

Mr. A. Chrystal, Marshall, Mich., has recently made the following purchases of high-class Shorthorn cattle in the Dominion, in addition to the list of his purchases published in the FARMER'S ADVOCATE of July 20:—From Arthur Johnston, Greenwood, Duchess of Gloster 43rd, a worthy representative of the famous Cruickshank family of that name. She was sired by imported Grand Sweep (6121), of the grand old Lady Ythan tribe, long and favorably known in the north of Scotland as a most excellent dairy tribe, as well as producers of excellent show cattle. From the same well-known herd was secured the beautiful heifer *Mina Girl*, by imported Clan Campbell (63794), of the grand old Kinellar (Clementina) tribe, so long and carefully bred by that master breeder, Mr. Sylvester Campbell. Her dam was by the famous imported Indian Chief, of Mr. Cruickshank's Victoria tribe, and out of the same dam as Col. Harris' well-known Baron Victor, one of the very best Cruickshank bulls ever imported to America. From Mr. Johnston's herd, Mr. Chrystal also selected *Prima Donna*, by imp. Grand Sweep, dam by imp. Lord Glamis, of the late Mr. Cruickshank's Brawhid Buds, one of the very best tribes in Scotland. She traces to imp. Emily, of the celebrated herd of Mr. R. Stratton, which need only be mentioned, and represents the effect of a judicious blending of the blood of a grand old English family with the very best of the Scotch. A sister of this heifer (on the dam's side) won first prize at the Toronto Industrial Exhibition in 1894 in a most excellent class, and stood second for sweepstakes—best female on the ground. A choice young bull was also purchased from Mr. Johnston, bred from the Nonpareil family, his grandam, Nonpareil Victoria, being a daughter of imp. Vice-Consul, bred by Mr. Cruickshank, and of his famous Victoria family. He was a sweepstakes winner at the Toronto Exhibition and at several State fairs.

From the herd of Messrs. Cargill & Son, Cargill, Ont., Mr. Chrystal secured the two choice young cows, *Early Bud 2nd* and *Ery of Cargill 2nd*, the former a red 3-year-old, by imp. Rantin Robin (by the famous Field Marshall), bred by Mr. Duthie, Collynie, out of imp. *Early Bud*, by Strong Bow, and of the Kinellar Rosebud tribe. The *Ery* heifer is a red 2-year-old, by the grand imported Kinellar-bred Royal Member, by Royal James, and of the Nonpareil tribe. The *Erys* were long looked upon as one of the best of the Sittytou sorts, and have produced many prizewinners.

From Messrs. G. W. Pettit & Son, Freeman, was purchased the red 2-year-old *Daisy* of Strathallan 18th, by Bampton M, and of the favorite Strathallan family, descended from imp. Rose of Strathallan, a prizewinner at the Highland Show in Scotland and at Provincial fairs in Canada, and whose descendants have probably won more first prizes and championship than those of any other cow imported. Bampton M, won first prize at Toronto, Montreal and Ottawa in 1898, and was by the famous Bampton Hero, a championship winner at Provincial fairs. From the same herd was selected *Roan Bracelet*, a 2-year-old heifer, by imp. Roan Prince (6423), by the Cruickshank Victoria bull, Vermont, with four top-crosses of imp. Scotch-bred bulls, and tracing to imp. Beauty, by Snowball, one of the best milking tribes of Shorthorns known in Canada. These, in addition to those formerly shipped, are a valuable acquisition to the herd of Mr. Chrystal on his fine 33-acre farm, situated 1 1/2 and a half miles from the city, on which he has now 83 cattle (10 of which are thoroughbred), 230 sheep, and 50 Berkshire swine. Mr. Chrystal, whose father was a prominent breeder of Shorthorns, near Stirling, Scotland, and was "to the major born," has laid the foundation well for a high-class herd, and we wish him all success in his enterprise.

Why Not Choose?

A FINISH FOR YOUR ROOMS THAT WILL LAST.



SAMPLE PLATE NO. 227.

Our Metallic Ceilings and Walls

Are Wonderfully Durable.

They can be easily cleaned; don't need re-newing; and are made in such artistic designs that they give a more beautiful effect than any other interior finish.

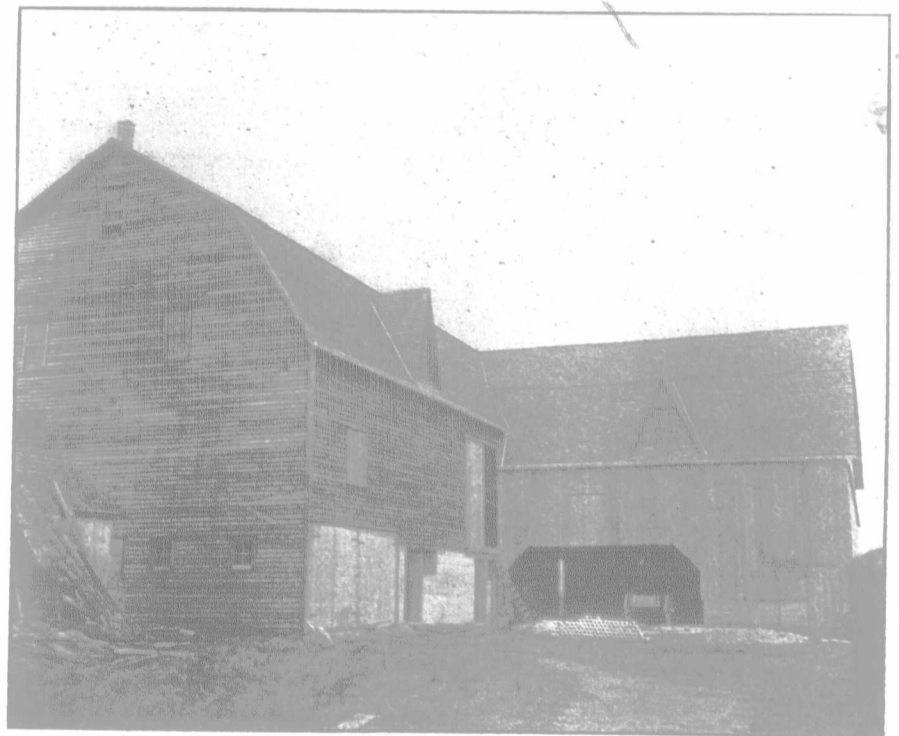
Besides, they are fireproof and sanitary, and cost very little.

If you wish an estimate, mail us a rough outline showing the shapes and measurements of the walls and ceilings.

THE METALLIC ROOFING CO'Y (LIMITED).

1182 King St. W., TORONTO.

Work Done With **THOROLD CEMENT** Speaks for Itself.



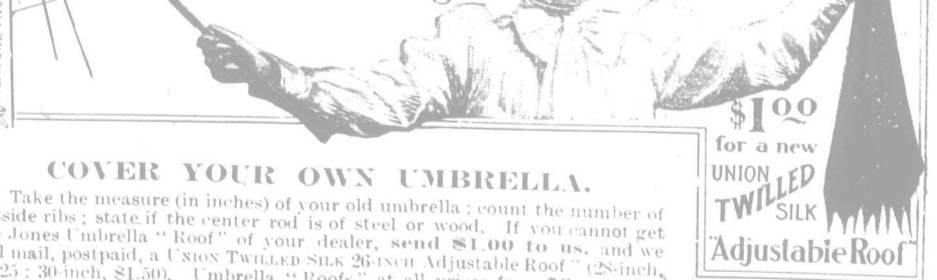
BARN OF MR. C. C. RITTENHOUSE, SOUTH CAYUGA, ONTARIO.
Size..... Built with Thorold Cement in 1898.

FOR FREE PAMPHLET WITH FULL PARTICULARS, ADDRESS

ESTATE OF JOHN BATTLE, THOROLD, - ONTARIO.

The Jones Umbrella "Roof"

Put on in One minute. No Sewing. Fits any Frame.



COVER YOUR OWN UMBRELLA.

Take the measure (in inches) of your old umbrella; count the number of outside ribs; state if the center rod is of steel or wood. If you cannot get the Jones Umbrella "Roof" of your dealer, send \$1.00 to us, and we will mail, postpaid, a UNION TWILLED SILK 26-INCH Adjustable Roof (28-inch, \$1.25; 30-inch, \$1.50). Umbrella "Roofs" at all prices from 50 cents to \$8.00 each, according to quality. If not entirely satisfactory, your money promptly refunded, including stamps you have used for postage. Booklet, "Umbrella Economy," with simple instructions necessary, mailed with your order. **THE JONES-MULLEN CO. (Incorporated), 396-398 Broadway, New York, N. Y., U. S. A.** Manufacturers of the highest grades of Umbrellas to the largest stores in the world.

\$1.00 for a new UNION TWILLED SILK Adjustable Roof

CANCER

CURED WITHOUT KNIFE OR PLASTER. FULL PARTICULARS FREE.

F. STOTT & JURY, Bowmanville, Ont.

Barred Plymouth Rocks (EXCLUSIVELY).

40 good breeding hens for sale at 10c. to \$1 each. Order at once and secure first choice.

(MISS) **P. J. COLDWELL, Constance, Huron, Ont.**

IMPORTANT TRUTH



FOR STOCK RAISERS.

LUMP JAW has been transformed from an incurable to an easily curable disease. The entire credit for this wonderful result is due to **Fleming's Lump Jaw Cure.**

When this remedy was discovered no other real cure was known. No other positive cure is yet known. **FLEMING'S CURE** was first introduced in Saskatchewan, and from there its reputation has spread over the entire continent. It is the only remedy endorsed by leading ranchers, shippers, and stock journals. It is positively guaranteed; money is returned if it fails. One bottle usually cures one to five cases.

Like all other articles of exceptional merit, it is imitated in external respects, but these imitations wholly lack the distinctive qualities of the genuine.

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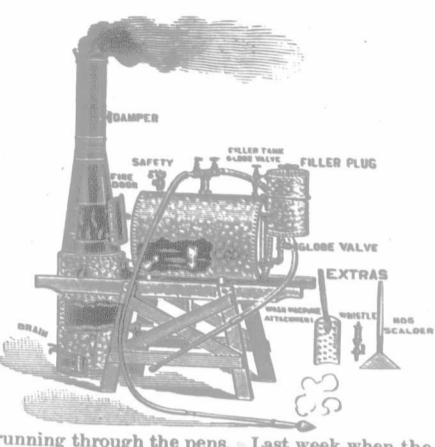
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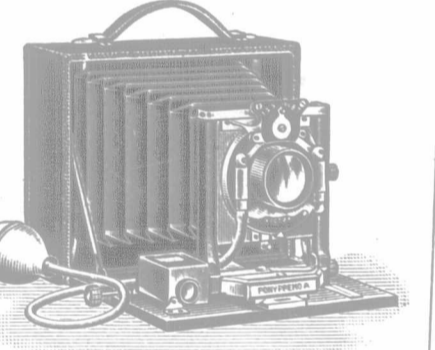
Oak Lodge Stock Farm, Burford, Ont., Feb. 4 '99. Messrs. Rippley Hardware Co., Grafton, Ill. Gentlemen,—I am in receipt of your letter of January 19th. I would have replied earlier, but I wished to thoroughly test the Cooker before making any statements. I have made a pretty thorough test of it, and I am satisfied that it does all you claim for it. My hogs have done much better since I started using your Cooker. I am feeding ground grain, which I scald and feed while warm. I am also using the Cooker as a means of heating my hog pens, by having steam pipes run through the pens. Last week when the thermometer was several degrees below zero, the pens were quite comfortable, and I saved several litters of young pigs that I am sure would have perished with the cold. I take pleasure in recommending your Cooker.

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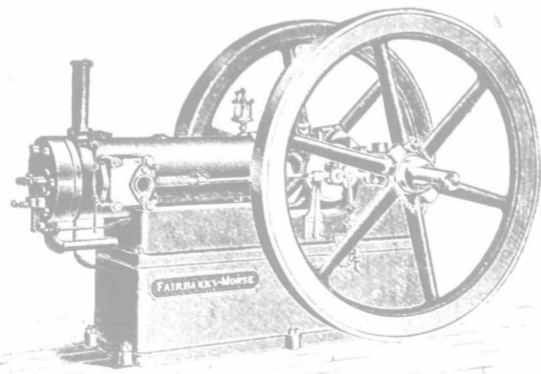
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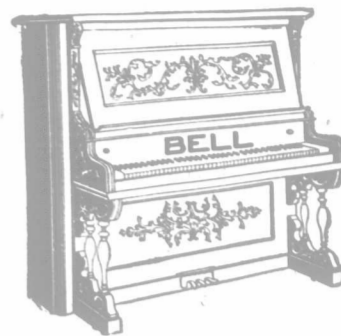
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