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MANITOBA AND WESTERN EDITION

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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VOL. XXXIV. LONDON, ONTARIO. DECEMBER 5, 1899. WINNIPEG, MANITOBA. No. 491

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CONTENTS OF THIS NUMBER.

ILLUSTRATIONS.	PAGE.
WEEDER, NEAR PORTAGE LA PRAIRIE; FIELD OF FODDER CORN IN SOUTH-WESTERN MANITOBA	612
SIR JOHN CARLING; REV. W. F. CLARK; WM. JOHNSTON B. A.	613
HON. ARCHIBALD MCKELLAR; HON. S. C. WOOD; HON. A. M. ROSS	614
HON. CHAS. DRURY; HON. JOHN DRYDEN; JAMES MILLS, M.A., LL. D.; MR. JOHN I. HOBSON	615
MAIN COLLEGE BUILDING, WITH CHEMICAL LABORATORY TO RIGHT; GLIMPSE OF LAWN AND TREES AT THE O. A. C.; GENERAL VIEW OF COLLEGE AND FARM BUILDINGS	616
GYMNASIUM, EXPERIMENTAL BUILDING, BIOLOGICAL LABORATORY, WITH RESERVOIR FOR FIRE PROTECTION; ONTARIO AGRICULTURAL COLLEGE, MAIN BUILDING AND FRONT GROUNDS; PORTION OF LAWN, WITH DAIRY DEPARTMENT; SOUTHDOWN RAM, WARREN ELLIS "7" 10274	617
FARMERS INSPECTING EXPERIMENTAL PLOTS; THE POULTRY BUILDING AT THE O. A. C.; A SAMPLE FIELD OF OATS ON THE COLLEGE FARM	618
IMPORTED TWO-YEAR-OLD SHORTHORN BULL, PRECIOUS STONE	619
SHORTHORN BULL, PRINCE LINCOLN =2368=; TWO SHORTHORN HEIFER CALVES	620
FOUR TYPES OF CARROTS GROWN AT BRANDON EX. FARM, 1899	621
RESIDENCE OF WELLINGTON F. JUSTIN	622
RESIDENCE OF MR. W. W. REVINGTON	623
AID TO THE FIRE SUFFERERS IN DAUPHIN; VENTILATE THE STABLES; WHEAT GRADES HIGH; THE DISTRIBUTION OF SMALL PACKAGES OF GRAIN FROM EXPERIMENTAL FARMS OF LITTLE BENEFIT; FREE TRANSPORTATION OF BULLS TO N.-W. T.; PREPARING FOR ALL WEATHERS; ARE WIRE NAILS DURABLE?; CRUSHING OATS	611
FODDER CORN IN SOUTH-WESTERN MANITOBA; THE WEEDER DOES GOOD WORK; HESSIAN FLY IN EASTERN MANITOBA	612
HORSE BREEDING FOR PROFIT; A GREAT PLOWING MATCH; INSPECTION OF HORSES AT THE BOUNDARY; OVER-FAT SHOW STOCK	613
THE ONTARIO AGRICULTURAL COLLEGE AND EXPERIMENTAL FARM—THEN AND NOW	614-617
THE GREAT WEST	617
THE WINTER SHOWS; THE NEW YORK HORSE SHOW	618
THE PROPOSED CHICAGO FAT STOCK SHOW; FEEDING STEERS FOR EXPORT; FEEDING CATTLE WITH A VIEW TO GREATEST PROFIT; BLANKETING OR CLIPPING HORSES; DOES IT PAY TO FEED DAIRY COWS LIBERALLY; THE BIBLE FOR FARM INSTRUCTION	619
A RESIGNATION; TUBERCULOSIS AMONG DAIRY COWS; WHY BREED UNPROFITABLE LIVE STOCK I; THE CRICKSHANK SHORTHORN; GIVE THE COLTS A GOOD START	620
OTTAWA PIG-FEEDING EXPERIMENT; AT BUFFALO IN 1901; PUBLIC STOCK SALES; STALL FEEDING OF FATTENING CATTLE; BEST I HAVE EVER SEEN	621
DESCRIPTION OF W. F. JUSTIN'S FARMHOUSE (ILLUSTRATED)	622
DESCRIPTION OF THIRD-PRIZE HOUSE PLAN (ILLUSTRATED); RENEW YOUR SUBSCRIPTION; HOW TO SECURE AN EXTRA COPY OF THE CHRISTMAS NUMBER; A GOOD TURN TO OTHERS	623
PREPARING DRESSED POULTRY FOR EXHIBITION	624
QUESTIONS AND ANSWERS—VETERINARY: BLACK TEETH IN PIGS; CHURNING SOUND IN THE HORSE; INFECTIOUS OPHTHALMIA IN CATTLE	624
MISCELLANEOUS: POOR RESULTS WITH HOME MADE INCUBATOR; MR. MEYER QUESTIONED ABOUT THE CARE OF POULTRY	624
MARKETS—CHICAGO; U. S. BEEF FOR BRITISH ARMY; BRITISH; LIVE STOCK EXPORTS	624
HOME MAGAZINE	625
FAMILY CIRCLE	626
THE QUIET HOUR; UNCLE TOM'S DEPARTMENT	626
GIANT TREE WITH ROADWAY CUT THROUGH IT (ILLUSTRATION)	627
PUZZLES	627
THEY ALL WATCH FOR THE "FARMER'S ADVOCATE" (ILLUSTRATION)	627
GOSSIP	628, 629, 630, 632, 633
AMERICAN OXFORD DOWN RECORD ASSOCIATION; AMERICAN SHORTHORN BREEDERS' ASSOCIATION; AMERICAN ABERDEEN-ANGUS BREEDERS' ASSOCIATION	631
NOTICES	628, 631
ADVERTISEMENTS	609 and 610, 628 to 636

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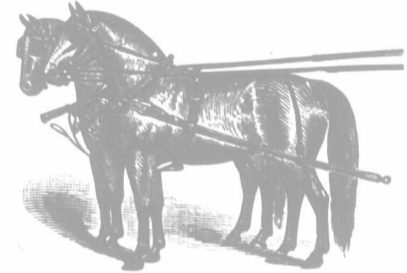
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VOL. XXXIV.

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

No. 491

Aid to the Fire Sufferers in Dauphin.

Mr. McKellar, of the Department of Agriculture, made a personal inspection of the burnt districts of the Dauphin country, investigating each individual case, and upon his report the Manitoba Government are giving assistance to those absolutely in need of sufficient supplies to tide them over the winter and assist them in making a fresh start next spring, hay and bran for the stock being the chief item. Although a good many settlers had their buildings burnt, it being a bush country they were able to rebuild almost immediately. In some few cases provisions for families who lost everything, and also seed for next year, are required. The total amount required to afford this needed assistance is only about \$2,500.00.

Ventilate the Stables.

Undoubtedly one of the chief causes of so much mortality among horses in this country is the poor and unsanitary condition of the stables. Old buildings that have been a long time in use, with rotten floors and a regular cesspool of filth lying underneath, emitting foul and poisonous gasses, and with little or no ventilation, cannot be healthful places for any animal. Very many people keep their stables too warm, even in the best and most modern buildings. It is general, upon first opening the doors in the winter mornings, to be met with a rush of hot, fetid air. While it is essential that proper overhead ventilators be provided, it is equally essential that an adequate supply of fresh air be allowed ingress. This should come at or near the floor, and be so arranged that no draft strikes upon any animal. Animals will be much more healthy in stables where the temperature is never allowed to go above 50° than where higher temperatures are common.

Wheat Grades High.

The following statement, issued by Chief Inspector Horn, of wheat inspected at Winnipeg in the months of September and October, gives a good idea of the relative quality of the season's crop, and it will be noticed that a very large percentage is No. 1 hard. A very small quantity of oats or barley undergo inspection at Winnipeg, but 44 cars of flax was inspected during the two months named:

Wheat.	Cars.	Bushels.
1 hard	8,312	6,923,890
2 hard	1,285	1,074,850
1 northern	307	254,810
2 northern	25	20,750
1 spring	11	9,130
3 hard	250	207,500
1 frosted	33	27,390
2 frosted	21	19,920
3 frosted	8	6,640
Rejected 1	191	158,530
Rejected 2	35	29,050
No grade	62	51,460
Total	10,583	8,783,890

The Distribution of Small Packages of Grain from Experimental Farms of Little Benefit.

For a number of years now the Experimental Farms have been sending out to farmers all over the Dominion small sample packages of seeds of various kinds, the ostensible object being to have these varieties tested in different localities. Whether any good has ever been derived from this distribution of small pound packages of grains, etc., in any other part of Canada, we are not prepared to say, but from somewhat extended personal observation, the writer cannot recall an instance where in Manitoba or the West any practical result has been achieved. The settlers in this new country, with so much development work to be done, and such short seasons in which to overtake the work, have no time nor conveniences to give the necessary attention required to get results from a pound of seed of any variety of grain. When desirable to test likely varieties in districts where soil or conditions are

different from that on the Experimental Farms, a better plan would seem to be to supply a fair quantity of seed to some one man, who would give it proper attention, and report promptly on results. There are some crops, such as potatoes, that can, with decided advantage, be distributed in small lots, as they can very easily be planted by themselves, harvested and kept separate, and the yield from even a very small quantity of seed will generally suffice for a considerable test the second year. In connection with this distribution of small packages of grains, Mr. McKay, Superintendent of the Indian Head Farm, is reported to have said at an Institute meeting, held recently in Alberta, that a new plan would in future be tried. He said:

"The plan of sending round to farmers a few pounds of seeds of different varieties of grains, etc., grown on the Experimental Farm, had not worked very well. The quantities were too small for the recipients to devote attention to the growth, etc. It had therefore been decided to adopt a different plan. Sufficient seeds of several varieties to sow an acre would be sent to the Agricultural Societies that applied for them, and then these could be entrusted to farmers in whom the Society had confidence. Farmers in several districts would then be able to conduct their own experiments. No Experimental Farm was in Assiniboia, and it was possible that certain seeds and particular methods that were suited to that part of the country might not be suited to Alberta. By the plan above indicated the kinds suited to the different districts would be ascertained, and thus would the farmer be benefited."

Free Transportation of Bulls to N.-W.T.

In connection with the free transportation on 8 carloads of pure-bred bulls granted by the Canadian Pacific Railway on behalf of the Northwest Territorial Government, as announced in the Nov. 20th issue of the *ADVOCATE*, we are advised by C. W. Peterson, Dep. Commissioner of Agriculture, Regina, that "the scheme is identical with that of last year. This Department will offer to carry animals from Ontario to Territorial points at the uniform rate of \$5.00. The Canadian Pacific Railway has, however, recognizing the usefulness of the work undertaken by this Department, come forward upon the request of the Department and agreed to co-operate to the extent above indicated. This will enable us to carry out a more vigorous policy in this matter this year than we have been in a position to do in the past."

Under this arrangement the party purchasing a pure-bred bull in Ontario can, upon filing an application accompanied with \$5.00 and a declaration that he is a bona fide farmer possessing a certain number of cattle, have the animal delivered to his nearest railroad station under the supervision of the Government, the Government undertaking, through the Dominion Breeders' Associations, the collection, shipping, and distribution of the stock. Last year each applicant was only entitled to get in one animal on these terms, and we understand the same rule applies still. The arrangement is the same as last year, so far as the farmers are concerned. The Government will be saved the freight, but \$5.00 a head is a very reasonable charge, and no one should object to paying that amount.

Preparing for all Weathers.

As the time is fast approaching when the Legislature and Stock Breeders' Associations will meet, the Farmers' Institutes and individual farmers should both individually and collectively impress it on the powers that be that every winter let pass without any opportunity of an agricultural training for farmers, their children, and their hired men, means thousands of dollars lost to the Province. Some may think this a strong statement, and in order to stifle their conscience will say: "Look at the expense of such an institution; the Province can't afford it;" and yet these good people can not or will not explain why so many creameries and cheese factories are idle; why the average yield of wheat in the Province is not higher; why the weed question is such a serious one; why a pork-packing firm cannot get enough hogs; why the stockers

all go out of the country (this same person swears at the tough beef his butcher supplies him with); or why it is so many of the fairs are such starvelings, and so on, *ad lib.* The editorial in the *F. A.* (Nov. 6), "Preparing for Winter," says, and the editor is correct: "Some of the older children should be given a few months' schooling, by which they would be greatly helped in their life's work, whether on the farm or elsewhere." A government ministers for the people; one of its primary duties is the improvement of the educational facilities. With a flourishing university (I refer to the attendance particularly), and colleges giving courses in arts, law, medicine, and divinity, Manitoba is fairly well supplied, educationally speaking, because there is no agricultural school. In the U. S. each State has its technical college, where the son and daughter of the poor man can take up agriculture, domestic economy (a science), engineering and other industrial pursuits. It is acknowledged by all that the professions are being overcrowded—the profession of agriculture will never be overcrowded, as that period will mark the millennium—and the wisdom of the direction of public funds in such a way as to further overcrowd these professions, law, art, divinity, etc., might be questioned. To the person who pays the taxes the project of an Agricultural College is a fearful one. He fears that a large bill will be incurred for expensive buildings and costly experiments, etc., and, while he is in error here, he forgets the resultant benefits of such an institution. Let me cite Wisconsin, and first show the rapid appreciation of the short course in agriculture. It has only been in existence six years, with very few students at the start, and to-day there are over 250 applicants for admission the coming winter. Who are these zealous people? Farmers, farmers' sons and hired men. The last mentioned class are well in evidence, and their reasons for appreciating such a course are shown when it is stated that the secretary of the short course last spring placed 102 students at good wages, wage running from \$20 to \$60 a month; and reflect, O reader! people do not offer such pay unless the services to be rendered are worth the price. Applications for educated agriculturists were so numerous that they could not be filled. Manitoba has not the funds to start an elaborate institution, giving courses in biology, chemistry and bacteriology; such subjects, I hold, being entirely without the province of the agricultural college proper; nor to turn out professors for agricultural colleges. The short course at Wisconsin is of 14 weeks' duration, no entrance examination, and the teaching is made as simple and as practical as possible. The students are shown how to handle a sheep, to judge a horse (not omitting its unsoundnesses), how to discriminate in all kinds of farm stock, are given the principles of feeding, soil physics, farm chemistry, farm bacteriology, horticulture, and dairying. The strong feature of the course is the live stock work, and the results are as stated above, and the students all go back to the farm with an increased earning power and love for their calling, and are also in demand as expert judges at the county fairs. Such a course can be started and maintained in Manitoba at a reasonable expense, because expensive buildings and laboratories are not necessary. The investment will pay 100 per cent. While the present state of affairs continues, the farmer population can say with justice, "Now is the winter of our discontent."

A. G. HOPKINS, V. S.

Are Wire Nails Durable?

It is said that the wire nail, that has to such a large extent displaced the cut nail, rusts through at the place where the two pieces of wood come together very much faster than the old-fashioned nail. One writer gives as an instance that where shingles have been put on with wire nails, but few years elapse before the nails are rusted through, and the shingles blow off the roof. Just why this should be so is not explained.

Crushing Oats.

The advantages of crushing oats before feeding them to horses are many. They are more readily masticated, and consequently the animal derives more of the nutriment out of them: horses cannot bolt crushed oats as many do whole oats. Of course with old horses, or young horses changing their teeth, the benefit is even greater than when horses have a full set of sound teeth. Bruising or rolling is now more generally favored than crushing, but when there are any foul weed seeds crushing fine is more likely to destroy the seeds.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

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THE WILLIAM WELD CO.,
WINNIPEG, MANITOBA.

Fodder Corn in South-western Manitoba. AS GROWN BY R. M. GRAHAM, MAPLEHURST FARM, NEAR MELITA.

To the Editor FARMER'S ADVOCATE:

Owing to the continual decrease in the native grasses, and the increasing demand for fodder, I decided last spring to try ensilage corn—a fodder very highly recommended by Mr. Bedford, of the Brandon Experimental Farm. I had a piece of old land sown to wheat the year before, but owing to the drought of spring that year the weeds choked out the wheat so badly that I did not cut, but pastured the grain. Last spring being so wet and backward, I did not get time to plow this land till end of May, when the bulk of the weed seeds were germinated. I plowed and harrowed down fine, and sowed 7 bushels Pearce's Early Prolific Ensilage corn on 15 acres, about the 2nd of June, plugging the seeder spouts so as to make the rows 2½ or 3 feet apart. A few days later I again harrowed to kill seeds that were germinating. About a week after the corn was up I ran the weeder over a couple of times, and then when the corn was 4 to 6 inches high I put a couple of boys to work the cultivator, one riding and going over it about three times till the corn was two or three feet high. I began to cut first week in September, with a McCormick open binder, just when the ears were becoming fit for table use, for which purpose we had sweet corn in abundance for two or three weeks.

The cutting was the most tedious of all, as I could only cut one row at a time one way against a brisk wind. If a few neighbors would combine and purchase a regular corn harvester it would greatly facilitate harvesting at a busy season. A crop of only a few acres could be successfully cut and tied by hand. At time of cutting the corn stood from 5 to 8½ feet high, which was dropped in windrows, stooked, and tied with binding cord. After freeze-up I may stack a portion by the stable, but will feed a large portion direct from the fields, drawing it as

required. During the early snow storm this fall I fed some of this corn, and find both cattle and horses very fond of it, and eat up stalks to the very butt. I have taken no means to ascertain the exact yield of this corn, but from a rough estimate place the yield at about two hundred tons from the fifteen acres; and though I had an immense yield of green-cut oats this year, I consider the corn the most profitable fodder crop I ever raised. I think that when possible it should be sown about the middle of May, which would enable a person to cut earlier and thus lessen the chances of being frozen in early autumn. I cut the corn quite low, which has left the ground fit for seeding next spring. Were the ground not so often cropped before, I would seed to wheat, but under present conditions will likely seed to barley or oats.

The Weeder Does Good Work.

I enclose a snap shot of our weeder outfit, with which we have cultivated a considerable area twice over after the wheat was four inches high. These weeders are manufactured by D. G. Hallock, York, Pa., and are each 12 feet wide, two of them together (as seen in the illustration) making 24 feet, with which we can easily go over 50 acres per day.



WEEDER, NEAR PORTAGE LA PRAIRIE.

They are fastened together with a rope, not too rigid, horses being kept apart by a stick between halters. If properly used when weeds are very small, nearly all weeds can be destroyed. On the 18th of July the wheat thus cultivated was four feet high and nicely out in head. The field shown in photograph was 70 acres of first crop after summer-fallowing. It yielded 1800 bushels (nearly 26 bushels to the acre), and so far as shipped graded No. 1 hard. Another 70-acre field, cultivated with the weeder, yielded 20 bushels, while a larger field, that we thought did not require a weeder, yielded 17 bushels. Another piece of wheat, sown on land that had grown fodder corn last year, gave about 600 bushels from 20 acres. This had no cultivation after sowing, but was well cultivated during the summer of '98 and grew a superb stand of corn. We always have heavy crops of wheat after corn, and find it one of the most profitable ways of summer-fallowing. The ordinary summer-fallow sown with wheat, oats and barley, supplies excellent late summer pasture. We keep a dairy and sell milk in town and thus can utilize a large amount of grain fodder.

I do not pose as a sample farmer, but like the weeder and its work.
W. F. B.
Portage la Prairie.



FIELD OF FODDER CORN IN SOUTH-WESTERN MANITOBA.

Maplehurst Farm, Melita, property of R. M. Graham.

Hessian Fly in Eastern Manitoba.

In view of the very serious damage done by the Hessian fly in parts of Manitoba this season, the FARMER'S ADVOCATE submitted a few questions to some of the leading farmers in different parts of the Province, principally the Red River Valley, in order to gather as much information as possible, in the hope that something might be learned that would be of benefit should the attack of the Hessian fly be repeated another year. The questions submitted were:

1. What percentage of damage, if any, did you suffer from the Hessian fly?

2. Was its attack general throughout your crop?
 3. Did you notice any particular difference on old land or new, summer-fallow or stubble, fall or spring plowing, light or heavy land, high, rolling, or low and flat lands, or in early and late sowing?
 4. What reasons would you assign for any differences you may have noted?
 5. Have you seen any difference in the degree of injury to wheat and barley?
 6. In your district has the damage been general, or confined to certain farms or localities?
 7. Are any precautionary measures being taken?
- From the replies already to hand it will be seen that the injury has been pretty general in Eastern Manitoba. The only other point from which any information has been derived is from near Melita. It is evident that very few were aware of the presence of the fly until harvest time, and that little definite information has been acquired. Some of the letters are quoted below:

To the Editor FARMER'S ADVOCATE:

In reply to your inquiries re damage by Hessian fly, I have to say:

That my wheat crop was seriously injured by the fly, from 8 to 10 per cent. at least of the whole crop being destroyed.

It attacked my wheat only, and I could see no difference on old land or new, fallow or stubble, fall or spring plowing, or in early or late sowing, though none of our sowing was very early. Possibly the late sowing, caused by the generally saturated condition of the ground from the heavy rains of last fall, has something to do with the prevalence of the pest in the eastern part of the Province.

Have not heard of any injury to barley. The damage was not general throughout our township, yet a large percentage of our farmers suffered, more, I believe, than are aware of it, as I think to this cause must be ascribed the generally low returns from the wheat crop in this locality.

The wheat stubble has generally been plowed under, and the straw, where not already burned, will be before spring, as suggested by the ADVOCATE.

Your timely articles have awakened the farmers to the necessity of taking active measures to stamp out this pest.
ROBT. FISHER,
Springfield Municipality.

In our district, although the damage was very general, it was not serious. Where its ravages were worst was on the highest and most mellow portions of the fields. Neither the low clay land nor new land was affected at all.

It did not seem to make any difference whether the land was spring plowed, fall plowed or fallow, as all was affected much alike. As to any remedies, only fall plowing was done; no burning was done so far as I know.
ED. ANDERSON,
Springfield Municipality.

Mr. Thomas Lewis, also from Springfield Municipality, considers that about 20% damage was done; that the attack was not so bad on new land as on old; that on wheat late sown the damage was worst. Did not notice any damage except to wheat. Considers the damage general throughout the district.

I noticed more damage done to wheat on light land; the heavy land was affected also, but not to the same extent as the light. We had no summer-fallow wheat, and all our wheat land was fall plowed. I don't think there was any difference between late and early seeding; we had all our wheat in on May 13th. As far as I can learn the whole Mennonite reserve was affected by the fly, but more especially on light, sandy soil.
A. WRIGHT,
Rhineland Municipality.

A. Graham, of Dufferin Municipality, reports about 7% of damage. The attack was general throughout the crop. Late sowing suffered more, and he thinks this is likely attributable to the late arrival of the Hessian fly. Barley and wheat about equally injured. The damage has been general throughout the locality. The land, he adds, intended for wheat is nearly all plowed, but the stubble is still uncovered on land intended for oats and barley. Very little stubble has been burned. Farmers have been too busy to acquaint themselves with the nature of the fly or the precautionary measures recommended.

To the Editor FARMER'S ADVOCATE:

In regard to the Hessian fly, I may say that it is something I know nothing about, and if it had not been for the reports in the papers of damage done elsewhere, I would not have known that it had ever been in the country, and I have not heard that any of our neighbors suffered from it.

I noticed, though, in fields of my own that had wheat on them last year, some patches that appeared blighted from some cause or other. When the rest of the field was fully headed out these patches were still in the shot blade, and never came to the perfection that the rest did. I could not account for it, as the land was all right and the

same as when the wheat was good. I have thought since that the Hessian fly may have been the cause of it. The proportion of damage was very slight, not amounting to one per cent. of the crop. Summer-fallows or new land did not show it.
Union Point. A. DRYDEN.

From the Niverville district, R. W. Greig reports about 15% damage; injury was to wheat only. Late sowing suffered most, although in some cases very early seeding suffered more than some of the late sowing. No damage noticed to any other crop than wheat. It was general throughout the district, the only precautionary methods taken being deep early fall plowing.



SIR JOHN CARLING.

Original promoter of the Ontario Agricultural College.

William Wallace, from the same district, reports from 5% to 20% damage. Observed no difference in old or new land or under different conditions of cultivation. Did not notice any injury to barley. Damage general throughout the district. Straw mostly burned, and all stubble land plowed.

H. O. Ayearst, St. Paul's Municipality, reports wheat on new land badly damaged, at least 25%; no other crop affected. No injury on old land, new land only being injured. His land was all spring plowed.

S. R. Henderson, Kildonan Municipality, estimates the damage done at 10%, and only on summer fallow. Reports it to have been worse on old land that had been summer-fallowed, with surface cultivation in the spring and sown early. Attributes the cause of this to the excessive wet in previous fall and spring. Noticed no injury to barley. Damage has been general throughout the district. Fall plowing the only precautionary measure taken.

From Reaburn, W. M. Champion reports no damage. All crops in the locality good. H. L. McDermott reports no damage from the Headingly district. George Kingsberry also reports no damage from West Selkirk district.

J. T. Lennox, writing from Arthur Municipality, states that if the damage done to the crops was from the Hessian fly, it was worse on summer-fallowing than on fall plowing. No damage on backsetting or spring plowing. His fall plowing and fallow were sown the same day, and ahead of the backsetting and spring plowing. Damage was spread over a considerable area, but many considered the cause to have been the rank growth early, followed by a long, dry period, which made the straw weak. He thinks, however, that the fly was one of the principle causes of the disappointing yield.

Horse Breeding for Profit.

Mr. Robert E. Turnbull, in the *English Live Stock Journal*, gives the following article on "Horse Breeding for Farmers, and What it Pays to Breed": "In the United Kingdom there are at present about 2,450,000 horses kept for business purposes and for recreation, and about 610,000 unbroken horses, or 3,060,000 horses. About four-fifths of the whole number are horses that have been broken to work on the land and for farm carting, and 1,415,000 for riding and driving, and for trade purposes; having regard to the large number of horses employed by railway companies, brewers, and in other businesses for heavy traffic, and the number of horses required for land work and for heavy traffic, and 715,000 for riding and driving and for light traffic.

"More heavy draft horses are required in this country than any other description; that being the case, farmers who give their attention to this class of horses, and who breed first-rate animals, can always find buyers who are prepared to pay a remunerative price for high-class horses suitable for railway and heavy town traffic. Young draft horses of the best type, that have been carefully reared and judiciously fed, can, without any disadvantage, be broken in and put to light work on the land when they are two years old. From that age till they are five years old, when they are ready for sale, they amply repay the cost of their food by their labor. If a young draft horse has the misfortune to meet with an accident that unfits it for town work, it may still be usefully employed on the land, whereas, if a young hunter become unfit for the purpose for which he is bred, his services cannot repay the cost of keep. All experienced farmers are agreed that, taking into account the value of the labor performed by young draft horses, they can be kept to the age when all horses command the best price at a relatively lower cost than other breeds. It is true that a considerably higher price can be obtained for a well-bred weight-carrying hunter, or for a high-class carriage horse, than for a good draft horse; but for one man who has the necessary qualifications to ensure success in breeding carriage horses of the best class, there are ten who are capable of breeding good draft horses, and except, perhaps, in Yorkshire and in some parts of Ireland, for one farmer who can breed a first-class weight-carrying hunter, there are fifty who can breed good draft horses. In the long run, capital invested in well-bred Shire or Clydesdale mares that are intelligently managed, gives, as a rule, a more certain return than capital employed in breeding either riding or driving horses. But if a man is a good judge of hunters, Hackneys or carriage horses, and is a



REV. W. F. CLARK.

Commissioner who investigated other agricultural schools and colleges, and recommended plan.

born breeder, naturally endowed with the qualities that are necessary for success, chiefest among which are sound judgment, patience, and the finest powers of discrimination, he may safely breed the kind of horse in which he takes the keenest interest, provided he has suitable land and buildings. There is no depression in the market for high-class hunters. The demand for high-class carriage horses exceeds the supply, and good Hackneys can be readily sold at remunerative prices. At the agricultural show at Trentham lately, the Duke of Sutherland stated that, according to figures he had received, 100,000 horses, in value £7,000,000, are annually employed in connection with fox hunting. The love of sport shows no sign of diminishing. In the last few years wealth has rapidly accumulated in this country. In the great business centers the number of well-to-do people has lately largely increased. Under the circumstances, good carriage horses are likely for some time to come to be more in demand than ever.

"It does not pay to breed cab horses or omnibus horses. These can be more cheaply bred abroad. It does pay to break high-class horses for riding and driving, and for agricultural purposes and heavy traffic. In this field home-bred horses of the best type are unrivalled."

A Great Plowing Match.

The great annual plowing match of the North Kent, Eng., Agricultural Association took place this year at Southfleet, near Dartford. As in previous years, the event excited intense local interest, and some idea of the dimensions assumed by it may be gathered from the fact that it attracted no fewer than 155 competitors. It is claimed for this meeting that it is the largest of its kind in the world.

Inspection of Horses at the Boundary.

The Dominion Minister of Agriculture has ordered sections 40 and 42 of the regulations governing the inspection of horses to be put into force at all points in Manitoba, the Northwest Territories, and British Columbia. They require the inspection of horses by competent veterinarians, authorized by the Minister of Agriculture, at the port of entry, when imported into Canada from the United States, viz.: Horses admitted for general purposes; horses for stocking ranches; horses or cow ponies for cattle ranches; horses forming part of settlers' effects; horses for racing, show, exhibition or for breeding purposes; horses for pasturing or winter feeding, and horses for sale. In the case of settlers' horses and horses for breeding the inspection fees are paid by the Department of Agriculture.

Over-fat Show Stock.

The complaint is being vigorously urged by a portion of the agricultural press of the United States that over-fatted animals in the classes for breeding stock of the beef breeds at the shows in that country are, as a rule, favored by the judges selected for awarding prizes, supposed to be tokens of recognition of comparative merit in the animals for the primary purposes for which they are intended. It is an old story which has long applied to American shows, and it is surprising that a people so generally intelligent and up-to-date have learned so slowly the lessons in advanced feeding written so plainly in living letters in the well-known fate of a large proportion of the over-fat animals as breeders which have figured conspicuously in their showings, and written equally plainly in the many excellent works on the subject of scientific feeding, published by able men in their own country, and in the reports issued from their agricultural colleges and experiment stations. Is it because their stockmen, from among whom their judges are chosen, are too busy to take time to read the literature of the day on the very question in which they are most vitally interested in their own occupation; or is it, which is probably the true reason, that their great common crop of maize is so easy to raise and to feed that they fall into the old way or fail to get out of the old way of pouring heating corn into their cattle, as a stoker shovels coal into the fireplace of an engine, until the vital organs of the animals for breeding purposes are burnt out, and they are left as useless for procreation as an extinct volcano for pyrotechnics.

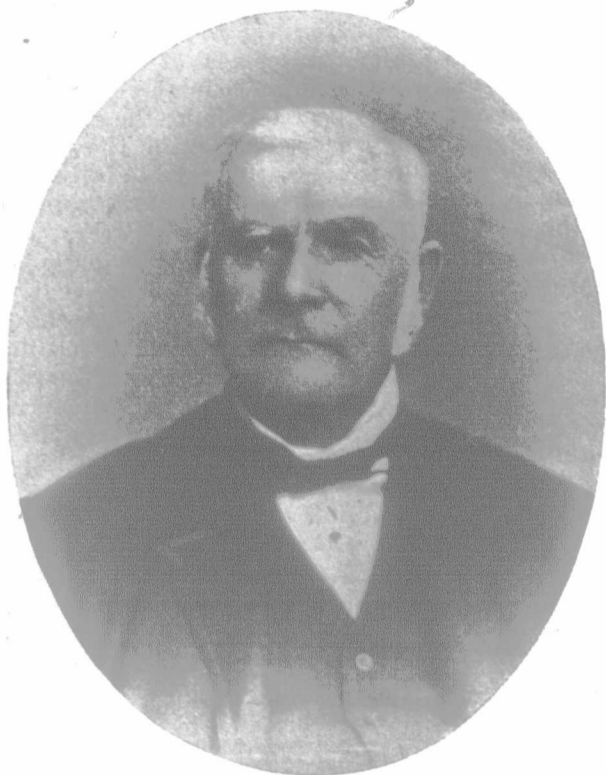


WM. JOHNSTON, B. A.

Principal of the Ontario Agricultural College from 1876 to 1879.

Canadian judges, breeders, and exhibitors have caught on to the idea of scientific (which is but another name for rational) feeding and the proper preparation of breeding stock for show purposes, and are a long way in advance of their neighbors across the line in this respect. It is long since there has been just cause for complaint, except in very rare instances, of over-fat animals winning the best prizes at Canadian shows, and very few indeed are shown in that condition, for the very good reason that exhibitors know from experience and observation that it would certainly lessen the chances of their animals for preferment by the judges, or of favorable notice from the stock-breeders around the

showing. There is good reason to believe that the animals which have been winning at the leading shows in Canada in the last ten years or more have made a very favorable record as regular breeders, and have produced a fair proportion of offspring good enough to make show animals, if need be. The complaint has been made by a contemporary that the classes for breeding animals of the beef breeds at the great agricultural exhibitions are nothing more nor less than fat-stock shows. We are glad to know that in this enlightened age this indictment does not apply to Canadian shows, and we will go further and say that many of the cattle shown, and winning in those classes at American



HON. ARCHIBALD MCKELLAR.
First Commissioner of Agriculture for Ontario.

shows, would not be tolerated in a fat-stock show in Canada. They would at least have no chance of winning prizes at the hands of our judges. We do not have that sort of stock entered for competition, and if they were presented they would be passed over without any mark of preferment. It is flesh, not fat, that wins, and a good judge, with a trained touch, can readily distinguish between the two qualities. We want, and will have, neither the soft, quivering, jelly-like covering of the carcass properly called blubber, nor the hard, dry, harsh-feeling rolls of fat on the ribs and rump, both of which are the results of the work of men who are ignorant of the first principles of scientific feeding or criminally careless in their methods. Let it be known and understood that adipose tissue is doubly discounted in Canadian showings either for breeding stock or for butchers' beasts, since its inevitable destiny is the rendering tank, and tallow is a low-priced product, the market for which our people are not ambitious to cultivate. Quality against the world should be the motto of Canadian breeders and feeders, and we are making progress along that line. Let the breeders proceed in the course that has proved a success, and to that end let there be no decadence of the cultivation of roots and other succulent food for winter feeding, and let a wise system of feeding mixed rations of nitrogenous foods more generally prevail, in which such muscle-producing foods as bran and oats form a liberal proportion, and with this precaution, coupled with a fair amount of exercise at all seasons, there will be little room for complaint that we are disregarding the law of self-preservation in our herds, or wasting good food in producing cheap meat, if fat, indeed, can properly be called meat—it is grease. Let our judges also—whether in breeding or fat-stock classes—make a memorandum in their memory that a good quality of firm flesh, thickly and smoothly laid over the carcass, and especially where the highest-priced cuts come from, is the mark of merit which must win, keeping always in view in the breeding classes character and breed type, which are qualities not easily described, but nevertheless readily recognized by the experienced and observant breeder. The judges assume a heavy responsibility, as by their decisions set the standard of merit, and are leaders in the education of young breeders and feeders.

The Ontario Agricultural College and Experimental Farm—Then and Now.

BY PRESIDENT MILLS.

To the Hon. Sir John Carling, of London, belongs the honor of having taken the first steps towards founding a School of Agriculture in the Province of Ontario; to him also is due the credit of having established the Dominion Experimental Farms at a later date.

In his report for the year 1869, addressed to Governor Howland, Mr. Carling, then Commissioner of Agriculture and Arts for Ontario, spoke in complimentary terms of the system of general education in this Province, and then said: "I have a growing conviction that something more is required to give our education a more practical character, especially in reference to the agricultural and mechanical classes of the community, which comprise the great bulk of the population and constitute the principal means of our wealth and prosperity. What now appears to be especially needed, in addition to the ordinary instruction in common schools, is the introduction of elementary instruction in what may be termed the foundation principles of agricultural and mechanical science, and I hope to be able, in the next report I may have the honor of presenting to Your Excellency, to record the fact of a commencement being made with a prospect of success."

REV. W. F. CLARK, COMMISSIONER.

On the 12th August, 1869, Mr. Carling appointed the Rev. W. F. Clark, of Guelph, a Commissioner to visit the principal agricultural colleges of the United States, gain what information he could and report with the view of establishing in this Province a school to give instruction in agriculture and kindred subjects, and to conduct experiments



HON. S. C. WOOD.
Second Commissioner of Agriculture for Ontario.

for the purpose of solving some of the problems which confronted those who were engaged in agricultural and horticultural pursuits. Mr. Clark's report, which appeared on the 8th June, 1870, was concise, comprehensive and scholarly, and withal practical and sensible in its suggestions and recommendations. It furnished the Minister with the desired information and indicated in outline the scope and character of a school of agriculture such as it was thought should be established in the Province of Ontario.

SCHOOLS OF AGRICULTURE AND PRACTICAL SCIENCE.

So, in pursuance of his previous intimation, Mr. Carling, in his report for 1870, definitely proposed the establishment of two schools, one for agriculture and the other for mechanic arts, and the outcome of his recommendation and subsequent action were the founding of the School of Practical Science in Toronto, and the purchase of 600 acres of land for a School of Agriculture at Mimico, seven miles west of Toronto.

The land was purchased in 1871, and a contract for the erection of school buildings for the accommodation of 100 resident pupils, at a cost of \$47,900, was entered into in November of that year; but, a change of Government having taken place that fall, the work was delayed for a time, and objections urged against the Mimico site by prominent farmers and stockmen caused some hesitation as to what should be done.

HON. ARCHIBALD MCKELLAR.

At length the Hon. Archibald McKellar, the new Commissioner of Agriculture, requested the Provincial Board of Agriculture and Arts, and afterwards Professor Miles and Dr. Kedzie, of the Michigan Agricultural College, to examine the site and

report as to its suitability for an experimental farm.

Both reports were unfavorable to the site, chiefly on account of the character of the soil and the lack of church and other privileges such as are enjoyed in the immediate neighborhood of a town or city; and the result was that a committee, consisting of John Dunlop, John Miller, John Dryden, the Hon. David Christie, and Robert N. Ball, was appointed to examine farms in the neighborhood of Whitby, Guelph, and Woodstock, with the view of getting a suitable site for the proposed school. This Committee reported the facts, without a definite recommendation, on the 13th December, 1872, and left it for the Government to decide, which it did by purchasing the Guelph farm of 550 acres from F. W. Stone, a political opponent, in the early part of 1873.

Some additions were made as soon as possible to the farmhouse, which still constitutes the first two stories of the main building, in order to get ready for 30 pupils at as early a date as practicable.

NAME AND MOTTO.

The name decided upon was the Ontario School of Agriculture and Experimental Farm, and the motto suggested by Geo. Buckland, the genial and scholarly Professor of Agriculture in the University of Toronto, was *Practice with Science*.

LIBERAL TERMS.

In accordance with the recommendation of a Commission appointed to prepare by-laws and regulations for the school, the first years were to be regarded as a Preparatory Term, in which student help was to be largely employed to put the farm and horticultural department into shape for practical instruction at a later date. During this period students were to work seven hours a day in the outside departments, and for his labor in these departments each was to receive instruction, lodging, board and washing, with a bonus of \$50 in cash at the end of the year, in case he completed it satisfactorily and passed the prescribed examinations on the course of instruction.

OPENING OF THE SCHOOL IN 1874.

On the 29th July, 1873, Henry McCandless, from Cornell University, was appointed the first Principal; and on the 26th March, 1874, there appeared over the signature of Mr. McCandless a long advertisement announcing the opening of the school on the 1st May, 1874.

LIST OF OFFICERS AT OPENING.

H. McCandless, from Cornell University. Principal.
Rev. W. F. Clark, from Guelph. Rector.
Jas. McNair, from Richmond Hill. Farm Foreman.
James Stirton, from Guelph. Stockman.
Thomas Farnham, from Toronto. Gardener.
Jas. McIntosh, from Guelph. Foreman Carpenter.
Mrs. Petrie, from Guelph. Housekeeper.
T. Walton, from Toronto. Engineer.



HON. A. M. ROSS.
Third Commissioner of Agriculture for Ontario.

Twenty-eight students entered the first term, and the outlook seemed encouraging, but the officers soon began to quarrel among themselves. In a short time the dispute between Principal McCandless and three or four members of his staff became so violent that Mr. Clark resigned on the 9th of June; and on the 13th of July, twenty-six of the students in attendance sent a petition to the Hon. Oliver Mowat, asking for the removal of the Principal. Mr. McCandless resigned on the 18th of July, and the Government began to realize that its troubles had only begun.

THE SECOND PRINCIPAL.

Charles Roberts, Esq., of Haslemere, Surrey, England, a prominent graduate of Cirencester

Agricultural College, was appointed to succeed Mr. McCandless. He came out for observation in the fall of 1874, but could not enter on his duties till April, 1875. In the meantime, Wm. Johnston, B.A., of Toronto, who had been appointed Rector, discharged the duties of Principal. According to agreement, Principal Roberts was on hand in April, 1875; but he was suddenly seized with an illness so



HON. JOHN DRYDEN.
Minister of Agriculture for Ontario from 1890 to the present time.

severe that he decided to resign his position and return at once to his native land. Some have said that the illness was caused by the stories which were told him of the frightful difficulties, trials, and annoyances of the position which he had accepted.

THIRD PRINCIPAL.

Wm. Johnston, B. A., was employed in the capacity of Rector from August, 1874, till the end of 1875, and as Principal for nearly four years—from the beginning of 1876 till the 1st of October, 1879.



HON. CHAS. DRURY.
First Ontario Minister of Agriculture; now Sheriff of Simcoe County.

Mr. Johnston, though lacking in practical experience, was a man of real ability—a good organizer, an efficient executive officer, and a vigorous writer. He soon grasped the situation, and to him very largely is due the credit of having placed the institution on a fairly solid foundation. He classified the work in the different departments, handled his

men to advantage, and did much to give character and stability to the School.

CHANGE OF NAME, ETC.

At the time of Mr. Johnston's resignation, and at his suggestion, the Ontario School of Agriculture and Experimental Farm became the Ontario Agricultural College and Experimental Farm, and the chief executive officer of the institution was afterwards to be known as President of the College. The writer took charge at that time (1st of October, 1879), and through storm and stress has stood by the ship for over 20 years.

FARM SUPERINTENDENTS.

From the outset, the office of Farm Superintendent was one of the most important in the School, and it is no less important in the College. James Laidlaw, afterwards representative of South Wellington in the Legislative Assembly, was Farm Superintendent in 1875; William Brown, from the fall of 1875 till 1st July, 1888, a period of nearly thirteen years; Thomas Shaw, from the 1st October, 1888, till the summer of 1893—nearly five years; and Wm. Rennie, from 1st October, 1893, till the 1st October, 1899—exactly six years. G. E. Day, B.S.A., was appointed Superintendent on the 1st October of the present year.

COMMISSIONERS AND MINISTERS OF AGRICULTURE.

The gentlemen who, as Commissioners and Ministers of Agriculture, have had control of the School and College since the Mimico site was purchased by the Hon. John Carling are: the Hon. Archibald McKellar, about four years (1871-1875); Hon. S. C. Wood, nearly eight years (1875-1883); Hon. James Young, a few months in 1883; Hon. A. M. Ross, about four and a half years (1883-1888); Hon. Chas. Drury, first Minister of Agriculture, nearly two and a half years (May 1st, 1888, to September 1st, 1890); and Hon. John Dryden, second Minister of Agriculture, over nine years (September 1st, 1890, to December 1st, 1899).

It would be invidious to enter into a discussion of the work done by the different Commissioners and Ministers; but, without offence, we think it may be said that every one in the list devoted a great deal of time and anxious thought to the affairs of the College at Guelph, and did the work much better than it would have been done by any Board of Trustees or Governors.

ADVISORY BOARD.

In the early days, 1874-75, there was an Honorary Council to consult with the President in the management of the school. This Council consisted of the Hon. David Christie, Hon. George Brown, Hon. Archibald McKellar, Professor George Buckland, James Young, Esq., M. P., Delos W. Beadle, Esq., and James Laidlaw, Esq. The Council disappeared when the Hon. S. C. Wood became Commissioner of Agriculture, and the Commissioner alone controlled the institution, till the year 1885, when the Hon. A. M. Ross had an Advisory Board of practical farmers appointed to assist him from time to time, especially in matters pertaining to the management of the farm. This Board is still in existence, and consists of John I. Hobson, Guelph, chairman; C. C. James, Deputy Minister of Agriculture, secretary; John McMillan, M. P., Constance, Huron Co.; William Donaldson, South Zorra, Oxford Co.; Edwards Jeffs, Bondhead, Simcoe Co.; G. B. Boyce, Norham, Northumberland Co.; and D. A. Dowling, Appleton, Carleton Co.

STRONG AND WEAK POINTS.

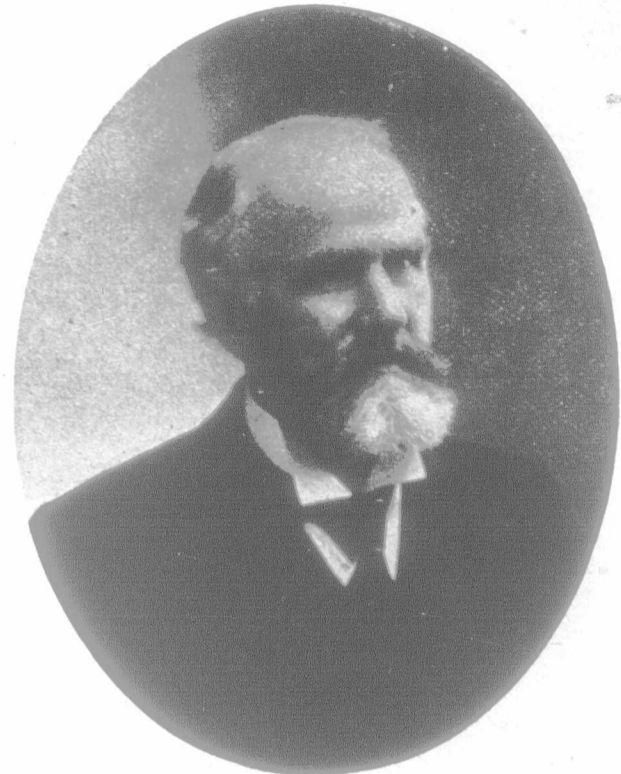
One of the specially strong points of the Institution, from '74 to '99, has been the thoroughly and persistently practical character of its work. Many United States Agricultural Colleges are agricultural only in name. They have placed agriculture in the background, and have broadened their courses so as to compete with arts colleges and universities. The Ontario Agricultural College has not done so, but has always insisted on manual labor, and has given special prominence to agriculture, live stock, dairying, horticulture, veterinary practice, and other branches of study which have a direct bearing on the ordinary work of the Canadian farmer. For a long period the Farm management was severely criticised by the farmers of the Province, and was very often spoken of as the weak point of the Institution; but, in time the tide began to turn, and during later years the Farm has been made an undoubted source of strength to the College. One source of weakness, from the beginning till 1883 (for nineteen years), was divided, and necessarily conflicting, authority. It was a cause of trouble to the first Principal; in the form of a double headship, it led to the resignation of Mr. Johnston, the third Principal, in 1879; in the same form, it caused endless friction from '79 to '88; and in other forms endangered the Institution subsequently. It was not till the summer of 1893 that the Government had the courage to give the President full control and make him responsible for everything, thus eliminating a serious element of weakness.

Though often, from its inception (starting with the change of site), made a sort of political party football, we are glad that that attitude toward the College has grown less marked and bitter than it was, and we now look for reasonable sympathy and fair support from both parties.

COURSES OF STUDY, DIPLOMAS, AND DEGREES.

The primary aim of the College always has been to train young men for work and life on the farms of the Province. The course for an Associate diploma, extending over a period of two years, and

including both study and practical work, has been arranged with this object in view; and nothing it allowed to interfere with this aim throughout the first two years of every regular student's course at the College. Those who complete this course and obtain the Associate diploma, signed by the Minister of Agriculture and President of the College, are known as "Associates of the College."



JAMES MILLS, M. A., LL. D.
President of the Ontario Agricultural College from 1879 to the present time.

In 1887, a third year was added to the course, and the College was affiliated with the University of Toronto for advanced examinations and degrees. The addition was made at the request of Associates who wished to pursue their studies in certain departments for a longer time than was embraced in the Associate course, with a view to preparing themselves more fully for the work of the farm or for positions as agricultural writers and teachers of agriculture, horticulture, dairying, animal husbandry, chemistry, biology or entomology. The work for this additional year is heavy, and none but the best Associates are allowed to take it. The examinations on the third-year work are conducted by the University of Toronto, and the B. S. A. degree (Bachelor of the Science of Agriculture) is granted to the successful candidates at the annual commencement exercises of the University.

Ninety-eight degrees have been granted on the three-year course, and it has recently been decided to extend the course to four years—two years for the Associate diploma, and two additional years for the



MR. JOHN I. HOBSON.
Chairman of Advisory Board of Ontario Agricultural College and President of the Provincial Winter Show.

B. S. A. degree. This change is due to the fact that the additional work required for the degree has been found too heavy for one year.

A special course in dairying was announced for the 1st of February, 1893, and the attendance was so satisfactory that a new dairy building was at once erected, and the equipment for a permanent

Dairy School promptly provided; so everything was ready for a large dairy class (over 100) in January, 1894. This school furnishes a very thorough course of theoretical and practical instruction in milk-testing, buttermaking and cheesemaking, and is divided into two departments—one for home dairy work and the other for a factory course, including both butter and cheese. A special dairy certificate is given to those who complete this course.

A large and well-assorted *geological cabinet*, especially arranged for purposes of instruction.

A well-equipped *biological laboratory*, with classroom and everything required for theoretical and practical work in botany, zoology, and general biology, including cabinets and specimens for the study of entomology, or that branch of science which treats of insects.

A large and well-equipped *bacteriological laboratory* for instruction and original work in the vast

A lecture-room for instruction in *English* and *mathematics*.

II.—FOR PRACTICAL WORK ILLUSTRATIVE OF LECTURES IN THE COLLEGE.

A farm of 345 acres of land in fine condition, well tilled and well managed.

A complete set of farm buildings and an ample outfit of agricultural implements.

Representative specimens of the most valuable breeds of cattle, sheep, and swine.

A large experimental building, and 43 acres of land divided into about 2,000 plots for testing varieties of grains, roots, potatoes, and corn, and for experimenting as to different methods of cultivation, dates of seeding, kinds of seed, value of artificial fertilizers, etc.

Special stable, piggeries, and yards for experiments in feeding cattle, pigs, and sheep.

A separate dairy stable and a special herd of 30 cows for experiments in dairying.

Butter, cheese, and milk-testing rooms, with the latest and best appliances for buttermaking, cheesemaking, and milk-testing, and the pasteurization of milk and cream.

Two rooms devoted to experimental cheesemaking for nine months of the year, and to work in the dairy school for the remaining three months.

Large and well-arranged poultry buildings, with 20 varieties of the most valuable hens, for practical instruction in the breeding, feeding, and management of poultry.

Sixty-three acres of land, including lawn, arboretum, forest-tree plantations, vegetable garden, vinery, small-fruit garden, and orchards, for instruction and practical work in horticulture.

A carpenter shop, with benches and tools for plain work and general repairs.

COURSE OF STUDY.

The course of study is liberal and very practical, specially adapted to the wants of young men who intend to be farmers. It embraces agriculture, arboriculture, live stock, dairying, poultry, bee-keeping, chemistry, geology, botany, zoology, entomology, bacteriology, horticulture, veterinary science, English literature and composition, arithmetic, mensuration, drawing, mechanics, electricity, bookkeeping, and political economy. French and German have recently been added for the B. S. A. degree. The purely practical or bred-and-butter subjects are well taught. The work in English is thorough, and the course in natural science is equal to that in our best arts colleges.

OUTSIDE WORK.

Already the College has rendered excellent service to the Province at large by the publication of reports and bulletins from year to year, and in several outside departments of work:

(1) The *Experimental Union* of ex-students and others in testing manures, and varieties of grain, grasses, roots, potatoes, and other crops throughout the Province—about 3,500 of them working under the direction of C. A. Zavitz, B. S. A., the College Experimentalist.

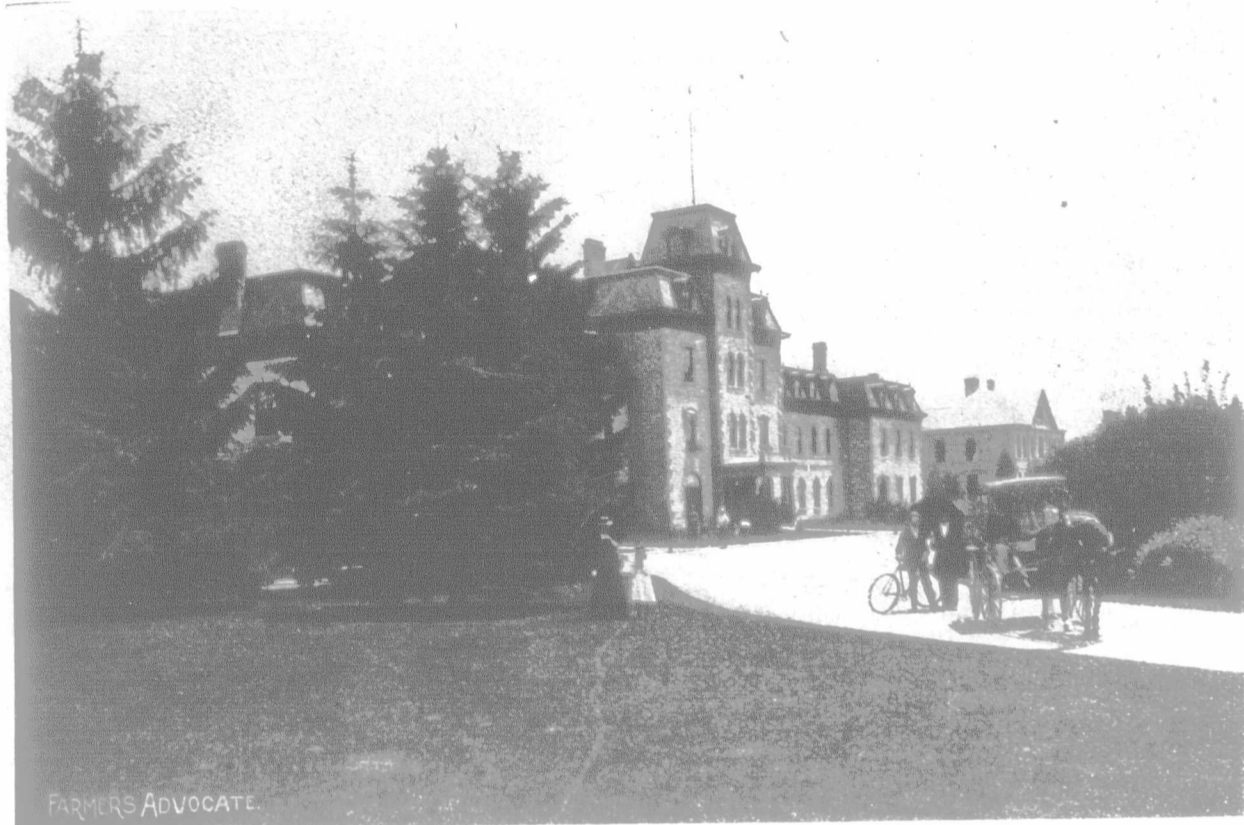
(2) The *Farmers' Institutes*, organized and controlled by the President of the College for ten years, and assisted by the College staff from their inception to the present time.

(3) *Travelling Dairies*, sent out from the College, controlled by the President, and conducted by graduates of the College.

(4) *Dairy Schools*, east and west, under the control of the President.

(5) *Fruit Experiment Stations*, twelve of them and two sub-stations, testing varieties of fruit under various conditions of soil and climate throughout the Province, and preparing a description of Canadian fruits, under the control of a small Board, of which the President of the College is chairman, and the College Professor of Horticulture a member.

With due regard to modesty and professional etiquette, I think I may say that, through these organizations and in other ways, the College is imparting a great deal of useful information to the farmers of Ontario, is creating a widespread interest in agriculture, and is adding dignity to life and labor on the farm.



MAIN COLLEGE BUILDING, WITH CHEMICAL LABORATORY TO RIGHT.

EQUIPMENT THEN AND NOW.

From the beginning, the institution had a very fair equipment for instruction in field agriculture and stock-raising—550 acres of land and substantial farm buildings, with good samples (male and female) of cattle, sheep, and swine; three greenhouses and a large garden for instruction in horticulture, and two commodious classrooms for lectures and demonstrations on the subjects embraced in the course of study. A dairy building was erected in the early days, but little or no instruction in the subject was given for the first eleven years after the opening of the school.

Houses for the Farm Superintendent, the Bursar, the Gardener, and the Farm Foreman were erected and large additions to the main building made in the Hon. S. C. Wood's time; and the chemical laboratory (the first laboratory provided) was built and equipped in 1887, near the close of the Hon. A. M. Ross' commissionership. The experimental barn was built while the Hon. Charles Drury was Minister of Agriculture; and the following large and important additions have been made during the regime of the Hon. John Dryden: New greenhouses, biological laboratory, convocation hall, dairy building (with complete equipment) and houses for the Department, poultry buildings and house for Manager, physical laboratory, experimental building, bacteriological laboratory, buildings for Experimental Feeding Department, and a new chemical laboratory (the first having been burned).

PRESENT ATTENDANCE OVERTAXES CAPACITY.

The number of students enrolled in the regular course this term is one hundred and sixty-four, no less than twenty-six of whom are lodging outside for want of room in the College.

PRESENT POSITION.

With an able staff of instructors and workers, and such large and valuable additions in the way of buildings apparatus and appliances, it may surely be said that the College is now in a splendid position to train young men for agricultural pursuits; to do work in original research; to conduct experiments on various lines, and to lead the van of agricultural and horticultural progress throughout the Province. The present equipment of the College may be briefly described as follows:

I.—FOR COLLEGE WORK.

A large and well-furnished *chemical building*, containing a beautiful classroom and three commodious laboratories—one for first and second year students in general, agricultural and animal chemistry; another for third-year students in quantitative work; and a third for special investigations and research in connection with the dairy and experimental departments.

and highly important field of bacteriological research.

A good *physical laboratory*, with tables and all necessary appliances for practical instruction in dynamics, mechanics, hydrostatics, hydrodynamics, electricity, and soil physics.



GLIMPSE OF LAWN AND TREES AT THE O. A. C.

General and special lecture-rooms for studying, handling, and judging *live stock*, especially cattle, sheep, and horses, and for practical demonstrations in the veterinary art.

A complete set of *greenhouses*, with lecture-room and laboratory for instruction in horticulture.

Lecture-room, with all modern appliances for the illustration of lectures on *dairying*.



GENERAL VIEW OF COLLEGE AND FARM BUILDINGS.

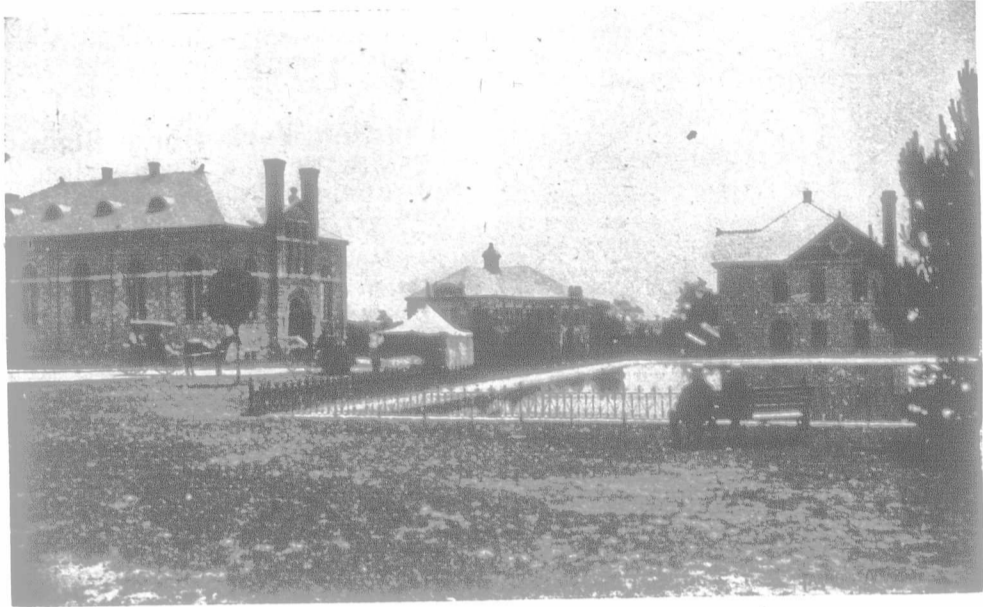
A FORWARD MOVEMENT NEEDED.

Progress has been the watchword of the College in the past, and it would seem that the time has come for another forward movement. Increased accommodation for students is very much needed, and there is a growing demand for instruction in domestic economy for farmers' daughters; so it would appear to be the duty of the Province to provide at once the new building which the ex-students asked for last year, and to add without further

In other words, the West is a pretty good place for men hedged about by hard circumstances, who feel that they could do better if they only had the chance. The Canadian Pacific Railway has made available large tracts of productive land, which may be had at small cost, and since, by the way, the East has had to "loosen up the price," as the Westerners say, for this work, they should reap some of the benefits from it. The settlement of the West by people from

different places is going to benefit the East in a variety of ways; at the same time, does it not look as though the East has paid well for the free privileges of the strangers? Let the farmers who found taxes heavy since 1885 answer. Let the men whose lands dropped thirty-five to forty per cent. in value with the opening of Manitoba answer, or whose wheat went from a dollar to seventy cents, and beef from six to three cents; but this is another story. Probably it is the business of states and governments to expand and grow as states independent of the interests of individuals. It is a case of self-preservation of the state as against other states, but rather hard on some of the individuals. It would be in the interests of the East if Provincial autonomy were given to the Territories, as the Dominion Government would be relieved of expenses in the keeping of public order, that should then devolve on the Territories themselves. We shall expect to hear from Eastern parliamentarians on this matter in future.

Manitoba farm steadings. A few strands of wire, however, seem to have been surreptitiously put up. The wheat fields, of course, indicate by their size the vast resources of the country, and by their beauty the wonderful productivity of the soil. The preponderance of wheat-growing over every and all other branches of agricultural enterprise suggests something abnormal, not simply because the Manitoba fields differ from the fields of Ontario, with their variety of barley, peas, oats, turnips, pota-



GYMNASIUM, EXPERIMENTAL BUILDING, BIOLOGICAL LABORATORY, WITH RESERVOIR FOR FIRE PROTECTION ON THIS SIDE.

delay a large and well-equipped Department of Domestic Economy.

The Great West.

II.
[SPECIAL CORRESPONDENCE.]

There is probably considerable interest for the general reader in accounts of the Doukhobors and

Manitoba's goddess is wheat. There is no ques-



ONTARIO AGRICULTURAL COLLEGE, MAIN BUILDING AND FRONT GROUNDS FROM NORTH-WEST.

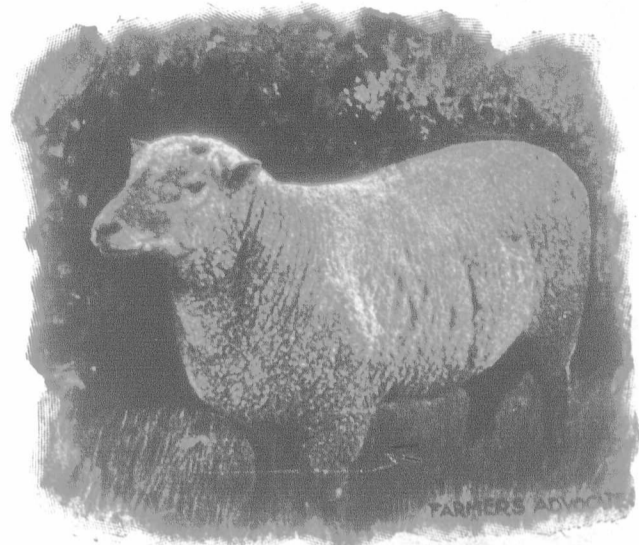
the Indians. The industrial qualities of the former are known to be good, which is a matter for congratulation, considering the comparatively large numbers that have come into the West. The social customs of the latter are interesting, from the fact that they are the original holders of the West, and because they are a dying race. It may be safely concluded, however, that what the Ontario or Maritime boy or man wants to know is the opportunity afforded by the West for the employment of his hands to the satisfaction of his immediate wants or the making of a competence. Without a very intimate knowledge of the West, or with no knowledge of it at all, it may be accepted as axiomatic that a man is foolish to leave a good thing any place for a problematic or uncertain better thing in a place he knows little about. The fact that a man is doing well in a place is conclusive proof that he is suited to the kind of environment in which he is placed, and is not an infallible index of what his success will be in another. The man who comes west just because he expects to get something for nothing, may be expected to finish in exactly the way that persons with such imperfect conception of the problem of existence deserve. Man shall not eat bread, even in the region of No. 1 Manitoba hard wheat, except by the sweat of his brow, any more than he will in any other part of the globe.

While it should be strictly borne in mind that it is always poor policy to drop the bone for the shadow, it is, on the contrary, wise, if you have no bone, to look about for one in the most likely place.

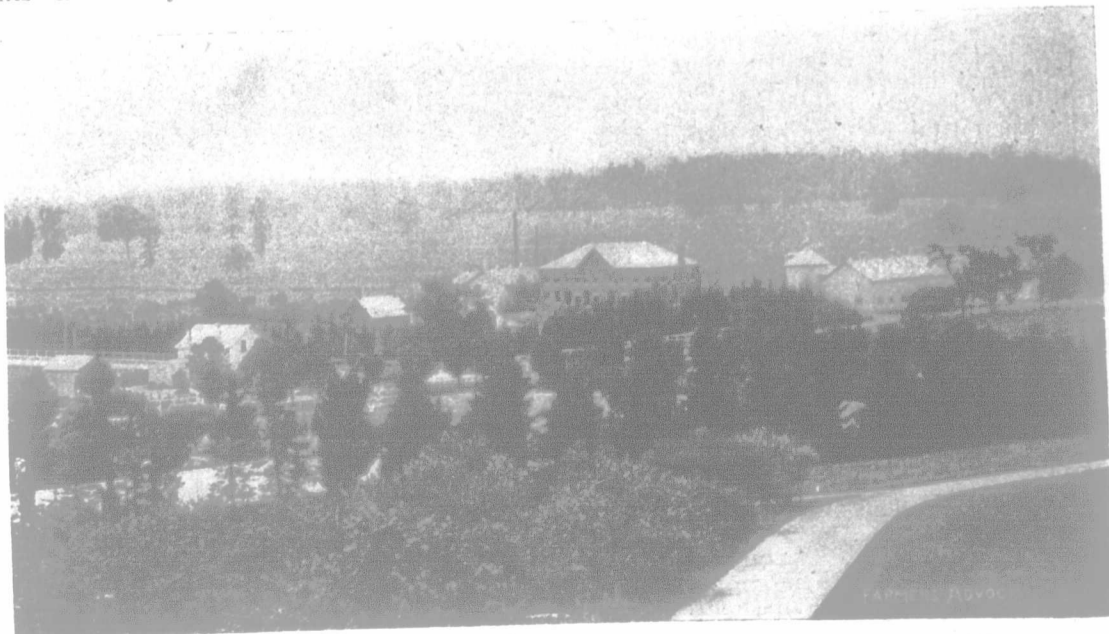
tion as to how well she can grow it. The place it takes in the markets of the world has settled this beyond discussion. The country is monotonous in its absence of knoll and brook and tree, and in no respect is this monotony modified when the ground is covered by the nodding, golden straw, the close, heavy stooks, or the twin stacks. At times wheat fields extend on both sides of the railway, past the line of vision in all directions without a break. One would judge that fences were against the law, were it not for the pictures of what the advertising agents in their pamphlets call typical(?) Man-

toes, and corn, or their cattle revelling in clover, or sheep nibbling on the knolls; but from well-learned simple scientific lessons on the necessity of preserving land fertility by rotation of crops and by the rearing and feeding of the domestic animals. The advantage to the land is not the only one. Mixed sources of revenue have the advantage over a single crop that may be almost destroyed over large areas in a single night by frost. The best Manitoba farmers already realize this, and are having their farms enclosed, and there are already many breeders of excellent horses, cattle, sheep, and pigs. There are plenty of young men from the East who have worked out and homesteaded their quarter-section at the same time, that have made themselves comfortable in two or three years. Good available homestead lands, of course, tend to become scarce near the towns and railways, but good land can be bought for from three to six dollars an acre, so that a man with a thousand dollars could buy a quarter-section, a team, and a few implements, and make a very decent start in Manitoba—much better than he could probably do, for example, in old Ontario. What is said of Manitoba applies to eastern Assiniboia. The region of Indian Head is scarcely inferior to the Portage la Prairie district, and the best parts of both the Province and the Territory are claimed to be away from the main line. With the opportunities afforded for seeing the country on the cheap summer excursions, no young man in Ontario who is looking for a wider field should neglect seeing the country. In a later issue the Western Territories will be dealt with, with special reference to cattle, sheep, and horse interests.

J. McCAIG.



SOUTHDOWN RAM, WARREN ELLIS "7" 10274. Sold by John Jackson & Sons, Abingdon, Ont., to Hon. Cassius M. Clay, Whitehall, Ky. Winner of third prize at London and Brantford, 1898.



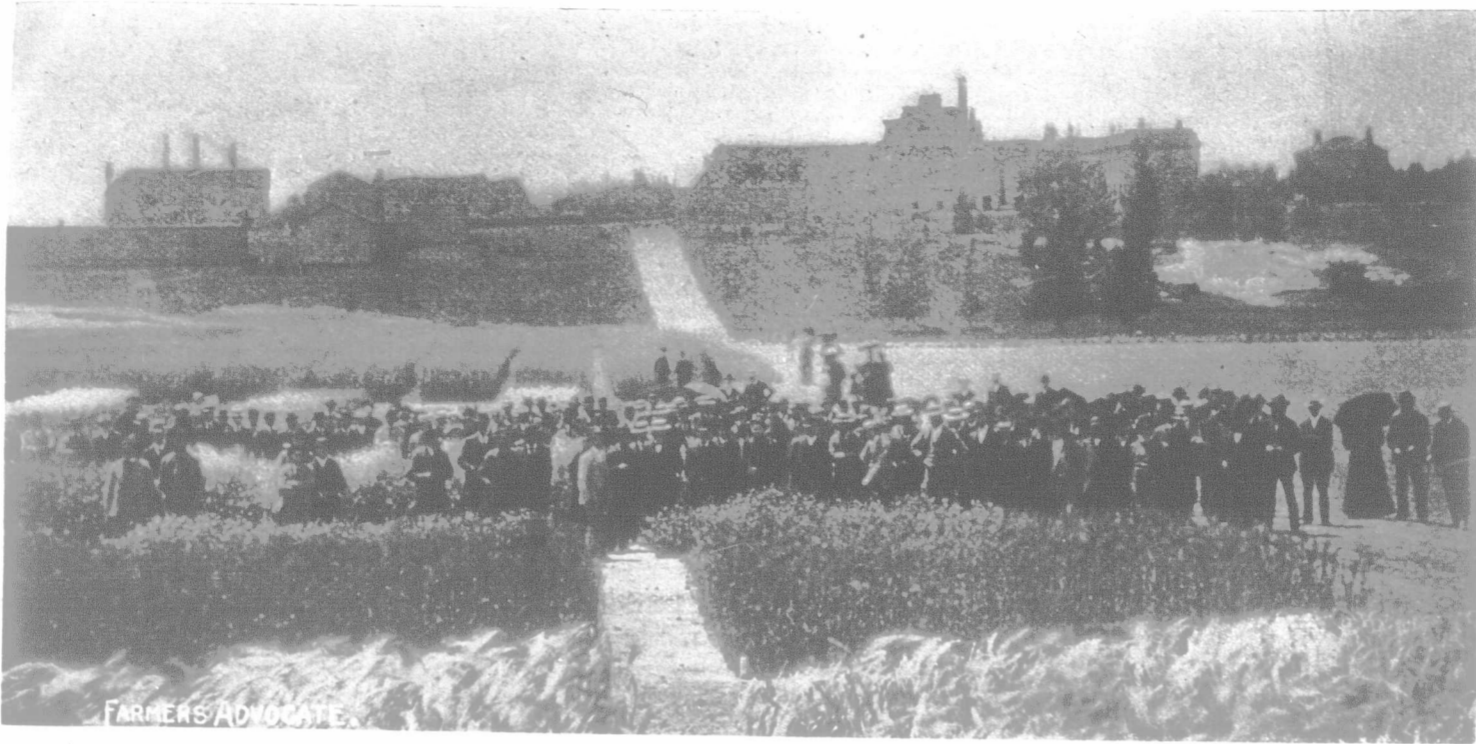
PORTION OF LAWN, WITH DAIRY DEPARTMENT IN THE DISTANCE.

The Winter Shows.

The remarkably mild weather of the last month has been so little suggestive of what is sometimes called grim winter, that it is difficult to realize that within a fortnight the fixtures now known as the Winter Fat Stock, Dairy and Poultry Shows will be events of the past, and yet the calendar—sure

purposes for which they are intended are placed before the people and their comparative merits passed upon by competent and experienced judges who know the kind and quality of products which best meet the requirements of the markets and command the highest prices. The slaughter tests, which will be a part of the Provincial Show to be held in London, December 11th to 14th, as advertised in this issue of the FARMER'S ADVOCATE, should prove an

in various lines of work connected with stock-raising, feeding and marketing, is an additional feature of interest, and cannot fail to be helpful to all who are willing to learn. The complete programme of the show was published in our Nov. 15th issue (Eastern edition). Some changes in this, made at a recent meeting of the committees, were referred to in a paragraph in our "Gossip" columns. The probabilities point to the shows of this year, both at London and Guelph, being better than ever before, the prizes being more liberal than at any time in the past, and the entries likely to be more numerous than ever before.



FARMERS INSPECTING EXPERIMENTAL PLOTS IN REAR OF COLLEGE.

index of fleeting time—points unerringly to the fact that within the period named these will have come and gone.

The steadily-growing importance and interest of this class of shows, in the estimation of those leading the van of live-stock improvement, has not yet been so generally realized by the rank and file of farmers as is desirable in the interest of all, but numbers are coming to see them, and, invariably, to see is to be satisfied that these are in many respects the most interesting, helpful and practically useful exhibitions of live stock and its accompaniments that are placed before the public in this country. From the consumer's standpoint all classes of the community are vitally interested in the objects of these exhibitions, which are the improvement of the quality of a large proportion of the food being prepared for the people, and the best means of securing that improvement. The great aggregation of producers in these lines are doubly interested, since they are not only included with the consumers, but are largely dependent for the sinews of war to carry on the battle of life upon their receipts from the handling of live stock and its products, while all the indications point to the certainty of an increasing dependence upon these as the safest source of revenue from the farm.

The feeding of stock on the farm is the only practicable means by which the average farmer can hope to retain or maintain the fertility of his land and reap a fair reward for his labor, and the class of stock he feeds determines the question of profit or loss in the transaction. If it be true that one class may be fed at a fair profit and another may be kept at an actual loss, as has been clearly demonstrated in numerous instances by the sure logic of weights and measures and dollars and cents, surely the sooner the people interested know it and realize it, the better for them and for all. There is only one means of grading up the common stock of the country, either for meat or milk production; that is by the use of pure-bred sires of the standard breeds, and in order to make the best use of this means, intelligent and judicious feeding must accompany it. The object of the fat stock, dairy and poultry shows is to furnish a school of practical science, which simply means commonsense methods, in which object lessons of the best class of animals for the

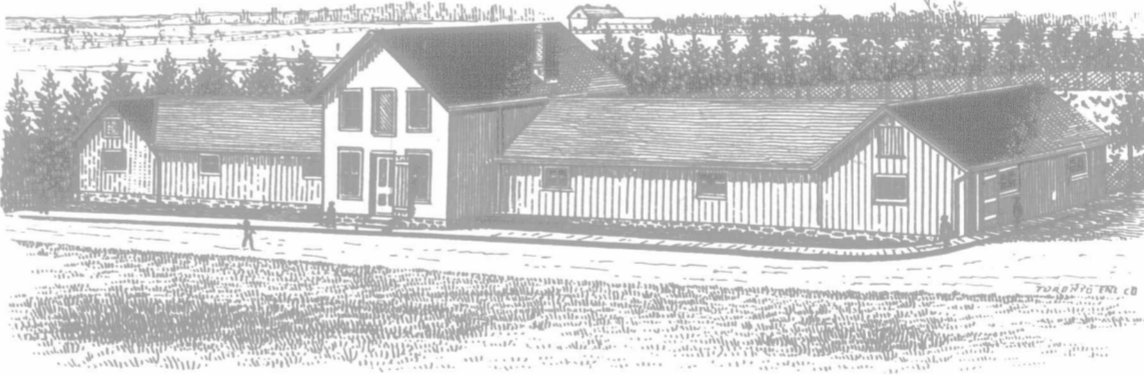
exceedingly interesting feature from an educational standpoint, while the practical illustrations of the most approved methods of dressing, preparing and packing poultry for the export trade, which is constantly growing, are subjects which interest a very large number of the farmers of Canada.

While we believe these shows are yet in their infancy and are bound to experience great expansion in the not distant future, yet they have made

of this popular type to congratulate themselves. The chief exhibitors in the breeding classes were Messrs. F. C. Stephens, of Attica, N. Y.; E. D. Jordan, Chiltonville, Mass.; while the following contributed to the competition: A. J. Cassatt, Berwyn, Pa.; Glen Dower Stock Farm, South Newbury, Vt.; Graham Bros., Claremont, Ont.; Chestnut Hill Stock Farm, Pa.; F. G. Bourne, Oakdale, L. I., and Gerkendale Stock Farm, Long Island. It was un-

fortunate, and is much regretted, that through illness a consignment from Hillhurst Farm, Quebec, could not be present. The Canadian entry, Lord Roseberry, by Lord Derby, met a strong rival in Fandango, from Maplewood, each putting up a sensational display, and each conformed well to the ideal Hackney pattern. Fandango, by Lord Rattler, by Lord Derby 2nd, like his rival, is no youth, being nine years old, and like him, he has until recently been under cover, but he is a great horse of a great breed. He was well shown, and won over Graham Bros.' entry, that did not reach his best in going. There was keen competition in the smaller horses, colts, mares, and fillies. In the male championship contest, Fandango, Prince Crompton, a son of Dangel, Brandon by Cadet, and Enthorpe Performer contested, but the two-year-old, Prince Crompton, carried off the challenge; while Fandango won over Enthorpe Performer in the stallion and progeny contest.

There was a great show of light harness horses, including Standard-breds and roadsters. Some of the great sires of speed contested in the stallion sections. Gen. Tracy's Advertiser, 2.15, by Elec-



THE POULTRY BUILDING AT THE O. A. C.

sufficient progress under obvious difficulty to commend them to the favorable consideration of the people, and will well repay the time and expense of attending them, and the latter item is reduced to very moderate limits by the arrangement effected with the railway companies, whereby on presentation of the prescribed certificate single rates are secured for the round trip. The schedule of meetings of farmers and stockmen during the show week at London, to be addressed by well-known experts



A SAMPLE FIELD OF OATS ON THE COLLEGE FARM.

tioneer, a horse for which was offered \$125,000, was among the contestants; along with Medio, 2,143, by Pilot Medium; Alcander by Alcanta, and the Earl by Mambrino King, that won in the order named. The championship was easily won by Dare Devil, a black son of Mambrino King. He stands 15.3½ hands, is shapely and rugged in his build, and is full of elasticity.

Thoroughbreds were meagerly shown, as only three stallions responded to the call; but saddle horses made a great display. Among the numerous exhibitors of this class, Messrs. Adam Beck, of London, Ont., and George Pepper, of Toronto, were successful competitors, as was also Dr. F. C. Grenside, V. S., formerly of the O. A. C. staff at Guelph, Ont. It is notable that a get of the Hackney stallion, Fordham, and out of a Kentucky saddle mare, won second for Dr. Grenside, in the section for weight-carriers up to 200 pounds. The Canadian stables contributed several winners in various classes.

The Proposed Chicago Fat Stock Show.

A despatch from Chicago, Ill., dated November 24, says: "Definite steps were taken to-day at a meeting of committees from each of the ten United States Live Stock Breeding Associations on the formation of the proposed new association of live-stock breeders, commission men and stock-yards officials for the holding of an international fat stock and breeders' exposition in Chicago next fall and in subsequent years. The proposed exposition will be held in the new Dexter Park Pavilion at the Stock Yards and in additional buildings to be erected, it being the purpose to exhibit only cattle in the Pavilion. It is anticipated that breeders from Canada, England and the Continent will compete with American raisers for the premiums offered. It was decided to adopt the name "The International Live Stock Exposition," and articles of incorporation will be taken out in Illinois.

The date of the first exhibition was fixed at December 1 to 8, 1900.

Among the premiums available for the show are the following: American Hereford Association, \$5,000; American Shorthorn Association, \$5,000; Polled Angus Breeders' Association, \$5,000; Polled Durham Association, \$1,000; Red Polled Cattle Club, \$1,000; Galloway Cattle Breeders' Association, \$1,000; Cotswold Sheep Breeders' Association, \$500.

The following officers were elected: President, J. A. Spoor; Vice-President, DeWitt W. Smith; Second Vice-President, Alvin H. Sanders; General Manager, W. E. Skinner; Secretary, Mortimer Levering; Treasurer, R. Z. Herrick; Executive: T. F. B. Sotham, cattle; A. J. Lovejoy, hogs; G. Howard Davison, sheep; R. B. Ogilvie, horses; J. Ogden Armour, packers; E. F. Swift, Stock Yards; John Clay, commission; William H. Thompson, Live Stock Exchanges; R. Gibson, Associations; A. G. Leonard, transportation; C. F. Curtiss, Agricultural Colleges.

Feeding Steers for Export.

AN EXTENSIVE FEEDER'S SYSTEM.

To the Editor FARMER'S ADVOCATE:

SIR,—At your request, I have no hesitation in giving your many readers a short account of my experience in feeding steers for export. Of course, at the outset, I wish it distinctly understood that I do not claim to know it all, or that the system which I follow is the best one. It will seldom be possible for two feeders to follow exactly the same system, yet both may be successful, judged by results. I have now been feeding from 50 to 100 head each winter for twelve years, but am not prepared to say that I have the proper system, although I can make beef for about 60 per cent. of what it cost me ten years ago, owing, no doubt, to improved methods, and the use of larger quantities of corn ensilage, clover hay and straw, and, of course, smaller quantity of grain. For instance, last year I sold my peas and barley, receiving 60 and 50 cents per bushel, respectively, for them, and bought corn at 37 to 40 cents per bushel; while this year it is doubtful if, at present price for the former grains, it would be profitable to buy the one and sell the others.

Probably I cannot give your readers a better idea of my manner of feeding than by stating the results of my feeding operations during the last season with 89 head, weighing on an average about 1,100 lbs. each when placed in the stables about first of November, and weighing 1,365 lbs. when shipped early in June. I give these figures to show the actual result, leaving your readers to draw their own conclusions. This lot were fed in the following manner: One lot of 49 head were tied in the usual way; were not let out during the feeding period, and having water before them all the time. The other lot of 40 head were fed loose in pens, 15x15, five in each, with water supplied by wind power, as in the case of the lot tied up, and as in

the other case, were not let out during the feeding period. Both these lots, in other respects, were treated practically alike. As these lots were not weighed when placed in the stables, I cannot give the exact gain in each case, but, so far as I can judge, I am perfectly satisfied that those in the pens did equally as well as the lot tied, while the labor in attending them was only one-half. More bedding is required in the case of those loose, but the quantity of manure is greater and of much better quality, the urine being more largely if not all retained.

The daily ration consisted of all the corn ensilage mixed with cut oat sheaves and cut straw slightly dampened (to which the meal was added) they could eat. The meal fed consisted wholly of corn meal, and averaged about six pounds per day for the whole feeding period, starting on about four pounds during first month, and gradually increasing to ten pounds the last month. The clover hay (uncut) was fed as an extra, either at noon or evening.

The two lots consumed during feeding period the products of 30 acres of corn in form of ensilage, 20 acres of oats cut in the sheaf, about 20 acres of clover hay, and 2,000 bushels of corn. This season I purpose feeding a lot for shipment by February, and shall follow the same process, only that after the first ten days will increase the allowance of meal to 10 or 12 lbs. per day. I have no experience in using spice or drugs, but use salt in small quantities daily, mixed with regular feed.

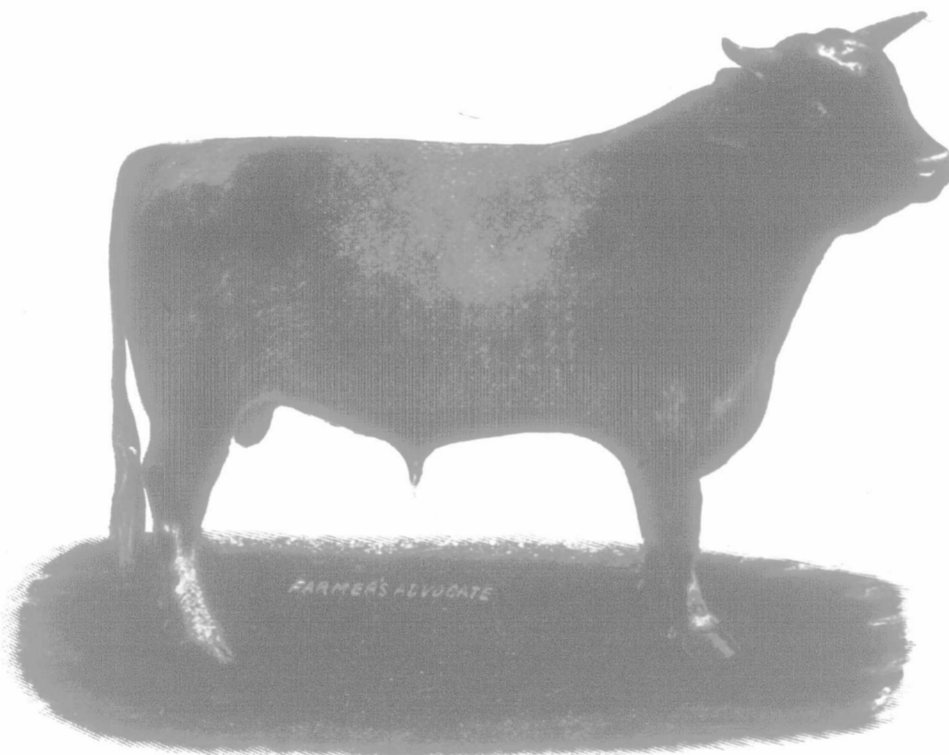
Huron Co., Ont.

D. A. FORRESTER.

Feeding Cattle With a View to Greatest Profit.

SIR,—Extended issues are raised by the questions about feeding steers, but I will only take them up in so far as they affect my own circumstances and system of farming and feeding.

Let it be thoroughly understood that fattening cattle can only be profitably undertaken by those



PRECIOUS STONE.

Imported 2-year-old Shorthorn bull.

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

(See "Gossip," page 629.)

who have started out with the idea in the spring of the year and provided abundance of cheap fodder, such as corn or ensilage, and straw; hay and grain alone will enable a man to produce fat animals, but he who counts at what cost will never follow it. At best the most economical feeding is necessary to obtain a profitable result, and margins are too narrow to permit of waste, or the lack of those inexpensive materials which can be, by forethought, provided.

The treatment of stockers and fattening cattle is entirely different. For the former, daily exercise or confinement in loose boxes is essential; while for the latter, though I prefer them running loose, for "short-keep" ones it is not so important. Steers to be put on grass, I start on a mixture of cut corn fodder, straw, and a little clover hay, dampened, and a little bran and pulped turnips. Of this they are given, morning and night, all they will eat, with long straw in the middle of the day, and a small allowance of hay at 8 o'clock at night. This is continued till about Xmas, when the corn fodder is usually finished. I then give each steer twice a day 2 bushels of ensilage, and after the morning feed from ¼ to ½ bushel of mangels, with 2 lbs., later on increased to 3 lbs., ground barley and oats added. No grain or roots are fed after the evening meal, but follow the roots at noon with uncut straw, and the last thing at night a little hay. Last winter for a time the straw was cut and mixed with the ensilage, but I do not now consider that necessary. My aim in feeding stockers is to obtain from the minimum quantity of grain and inexpensive foods the greatest increase in weight possible.

as cattle fed liberally on grain are slow gainers, and shrink heavily when first put out on grass.

In fattening steers about the same method of feeding is adopted, excepting that at the outset they are given more roots and 4 lbs. daily of a mixture of chopped oats, barley and corn, which is gradually increased till by the middle of January they are receiving 8 to 10 lbs. each daily.

Excepting salt and a little sulphur, I have never given anything beyond natural foods, and therefore can give you no results of the use of spices. Animals that can be finished in three months do well tied up, but those requiring longer feeding give better results running loose, and the saving in labor in the latter method is a most important item not to be overlooked. With very little extra bedding cattle will keep cleaner than in stalls, and, taking everything into consideration, I am decidedly in favor of loose boxes (built long and narrow, rather than square), but some stalls are necessary for tying an occasional steer that is shy in pushing himself up against the rest at feeding time.

Free access to water in the comfortable quarters where cattle are stabled is most essential, as they can then drink at their leisure at such times as their tastes incline them. Even if it is deemed necessary for cattle to be turned out daily for exercise, it is best to provide them with water in the stable.

As to type for feeding, adhere closely to the beef breeds, selecting individuals exhibiting the good characteristics of their breed in a marked degree, avoiding long heads, long necks, and long legs.

Middlesex Co., Ont.

ROBERT McEWEN.

Blanketing or Clipping Horses.

"We have reached," says Col. Edwards in the Newark Call, "the conclusion that a heavy blanket on an unclipped horse in the stable is detrimental to his health. Observation and experiment have convinced us that the unblanketed horse in the winter is the healthiest and most comfortable. The best possible condition for a horse to take cold is when he comes out of the stable where he has been standing blanketed. The cold air will strike like a knife into every part of his body. A heated horse should not be blanketed when he goes into the stable. A horse with long hair will remain wet all night under a blanket. If the stable is warm and free from draft the horse will be much better off without any covering whatever. Nature provides a covering ample to protect the unclipped horse in this climate in the winter. If more had been needed more would have been provided. We are not speaking idly. For some years we have carefully noted the effect of cold upon blanketed and unblanketed horses. Seven years ago we discarded the blanket, and the result has been entirely satisfactory. No man in his senses would think of wrapping himself up in a warm house and removing the wraps when he went out.

All this refers to unclipped horses. A man who would leave a clipped horse unblanketed in the winter should be arrested and sent to jail. And this brings us to remark that horses whose work causes them to perspire freely in cold weather are better for being clipped. The cold air is not half so penetrating to a clipped horse as to one with his coat on and wet. A clipped horse, if wet, can be rubbed dry in fifteen minutes. The experiment has been thoroughly tested, and men who own horses worth thousands of dollars would not have them clipped if they did not believe they were better for it."

Does it Pay to Feed Dairy Cows Liberally. At a Farmers' Institute meeting, Tonganoxie, Kansas, a dairyman gave in his report on producing milk for the Kansas City market from common cows picked up through the country. So far as possible these cows were fresh in the fall. During the winter they receive a ration consisting of a mixture of 14 to 16 pounds of bran and corn meal, and what clover hay and sugar cane they will eat. In summer they receive, in addition to pasture and soiling crops, 4 to 5 pounds of bran. By this system of liberal feeding, a two-years record shows an annual income per cow of \$70.00, the milk being sold at an average of 8c. per gallon. Last year at the Agricultural College our best cow cost us \$32.80 for feed, the highest of any cow in the herd, and about \$3.50 above the average of the herd, and yet the profit from that cow, over the cost of feed, was \$24.12 above the average of the herd. Does it pay to feed liberally? With a good dairy cow it surely does. Had the herd referred to above, or the best cow at the Agricultural College been stinted in feed, it would have been an extravagant piece of economy, that would have resulted in a diseased pocketbook. The dairy cow is a hard-working animal, and should be fed accordingly. Kansas Experimental Station. D. H. OTIS.

The Bible for Farm Instruction.

I use your paper as a guide-book for general farm instruction as one uses our Bible for religious instruction. WM. BRYAN. Osman, Ont., Nov. 26, '99.

A Resignation.

Referring to a paragraph in the last issue of the *FARMER'S ADVOCATE* re the appointment of a new Dairy Superintendent for Manitoba, Mr. C. C. Macdonald, the former occupant of that position, writes, advising us that the statement that he was dismissed from the Government service was incorrect, and in support of his statement encloses the following copy of an extract from a letter which he has received from Mr. David Philip, chief clerk in the Provincial Secretary's Department: "I have the honor to inform you that by an Order-in-Council, No. 6608, dated November 28th, 1899, your resignation as Dairy Superintendent has been accepted."

We cheerfully give space to the foregoing, and can assure the late Superintendent that he has our best wishes, as has also the dairy industry of Manitoba and all those engaged in its promotion in various capacities.

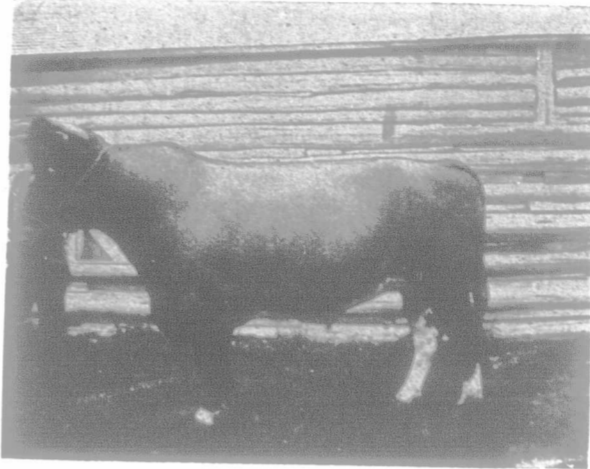
Tuberculosis Among Dairy Cows.

A report by Professor Wortley Axe on the results of the inquiry promoted by the British Dairy Farmers' Association into the prevalence of tuberculosis among dairy cattle appears in the journal of the Association recently issued. Nine herds were selected for testing, the number of animals in each, including bulls, ranging from seventeen to ninety-four. In two herds, containing respectively seventeen and forty-one animals, none of the animals reacted, and in one containing eighty-three the reactions reached only 3.6 per cent.; but in the other herds the percentages of reactions were respectively 20, 30.3, 43.4, 71.4, 76.9, and 90.4. The herds which gave no reactions were bred on their farms, and the animals lead an outdoor life all the year round, being in the pastures or yards by night as well as by day. The other herds are kept to a great extent in sheds, and Professor Axe lays stress upon the influence of shed life upon the propagation of tuberculosis. Of the 461 cows comprised in the inquiry, 51, or 11 per cent., were found to have some disease of the udder of one kind or another, and of the animals so affected, 27, or 55 per cent., reacted to the test. Still, in an appendix by Mr. F. J. Lloyd, who analyzed thirty-three samples of milk from the tested herds, he states that he could not discover the tubercle bacillus in a single instance. After this failure he took measures for cultivating the bacillus, if present, in glycerine beef broth, and tried about thirty samples of milk in that way, but without developing the tubercle bacillus in one of them.

Why Breed Unprofitable Live Stock?

One Samson endeavors to point out in the *English Live Stock Journal* a glaring folly on the part of very many English farmers, which he blames for their unpropitious condition. What is true among English farmers in this regard applies well to a large number in Canada and other lands, who through choice or force of circumstances neglect the improvement in their stock that is easily within reach. This is what Samson says:—"In making a short review of this subject, which is so important to the pecuniary success of all farmers who breed live stock, we willingly concede that, after every endeavor has been made, there will be misfits in breeding; but because that is so, it is none the less a mistake to keep these misfits to propagate other misfits, and so to lower the standard of the animals of the country. The argument is applicable to all descriptions of live stock, but in the present article we confine it principally to Shorthorn cattle. In most farmers' stocks in the northern counties of the United Kingdom you find some half-dozen cows of more than ordinary excellence—good in shape, flesh, and milk, and which would do no discredit if brought in contact with the best pedigree herds. But the others, it may be from thirty up to fifty milch cattle on each farm, fall by gradation, and you have the feeling that some of them are not paying for their keep. They have been bred in a happy-go-lucky way, from lack of thought mainly, but with the intention strongly underlying, although not openly confessed, of saving a shilling in the service fees. Unsound horses on the road at low fees are not the only sinners. For some years past a system has grown up amongst northern farmers of using a pedigree bull and rearing all their male calves for sale. These latter are mainly sold in the auction marts as pedigree stock, although they are mostly bred from unregistered dams, and much disappointment frequently results following the use of such bulls. The trade, too, has been so overdone that it is not unusual to see yearling bulls sold at from 6 to 10 gs., a price that cannot pay the breeder and rearer. These are the mongrels that keep farmers' stocks mongrel and unprofitable. At a sale of pedigree stock the purchaser has the opportunity of seeing both sire and dam of the young bull he decides to buy, and can thus assure himself that they are good alike in both milk and flesh. After taking stock of

the best of the dams in his own herd from which he purposes to breed his future produce, he can then satisfy himself if they are lacking in any salient feature, and then select the bull most likely to supply the defect in his dam. It was precisely in thus selecting male animals to supply shortcomings in the females that the Holker and Inglewood herds attained to such excellence. But even when this has been done, there will in all probability come misfits, and these must be cleared out, the males steered and the females fattened for slaughter. There can be no doubt but that if nine-tenths of the male calves now reared for service in the northern counties (possibly the same will apply to other counties) were sold as fat calves, or steered and sold fat as bullocks, the breeders (tenant farmers) would benefit pecuniarily, and a manifest improvement would result in the general cattle of the country. At present such breeding and rearing



SHORTHORN BULL, PRINCE LINCOLN = 23368 =.
Sired by Golden Robe = 20396 = ; dam Lady Zoe 2nd = 25980 =.
THE PROPERTY OF W. STROTHERS, GRABURN, ASSA.

for use is a lottery. The yearling may bring 6 gs. or 20 gs. in the sale, so each take their chance of the higher figures. Such sires are simply a national loss, a deterrent to the improvement of the national breeds of cattle, and a pecuniary loss to each farmer who breeds them or from them. In the United Kingdom at the present time trade is good, wages are good, and the masses would prefer to eat British home meat; but when much of that meat offered to them is no better than the foreign meat sold at 2d. to 3d. per lb. cheaper, need we wonder that the foreign meat comes to us in ever-increasing quantities; and the future offers to intensify the competition, for the foreigners are taking the steps so many British farmers ignore, and are yearly improving their live stocks from British foundations. The lesson is before our eyes, yet British farmers—at all events, too many of them—remain apathetic, passive, looking on with folded hands



TWO SHORTHORN HEIFER CALVES.
Sired by the late stock bull, Valkyrie. (See "Gossip," page 632.)
BRED BY T. DOUGLAS & SONS, STRATHROY, ONT.

whilst their principal trade is slowly but too surely departing from them, and asking Jove to lift the wheel out of the rut—the landowners to reduce their rents. It is certainly a strange picture of 'rest and be thankful,' and the pity of the situation is that it is true. We remember the case of a farmer, a man of capital, who took what he admitted to be the worst of a dozen rams, because it was 5s. cheaper. Yet he selected that ram for use in his own flock, to the probable deterioration of hundreds of its produce. Where practice such as this prevails need we wonder that British agriculture remains under a cloud? How can we hope to see the silver lining?"

Best in Canada.

J. B. THOMSON, Hamiota, Man., Oct. 28th, 1899: "I like the *FARMER'S ADVOCATE* well. I think it is the best agricultural paper in Canada."

The Cruickshank Shorthorn.

The remarkable sales of Shorthorns held in Aberdeenshire during the past month plainly set forth an object lesson, so that he who runs may read. It must be tolerably patent to one and all that the barrier of prejudice cannot be permitted to bar the way in Shorthorn breeding. There was a time when supporters of other types of the Shorthorn made light of the "little red Cruickshank bulls," but that spirit of persiflage is fast becoming as extinct as the dodo. Let any intelligent breeder, approaching the matter without prejudice, compare the composition of the leading Shorthorn herds in England to-day with ten or fifteen years ago. We find the Cruickshank Shorthorn at home in places it would have been heresy, years ago, to have regarded as their ultimate destination. This steady onward march has been accomplished chiefly by the foreigner's appreciation of the merits of the modern beef-making type of Shorthorn. It was to foreign appreciation, first of all, that Amos Cruickshank owed the popularity of the type he evolved. It was on behalf of the foreigner that the flower of his herd was sold, to be rescued by the enterprise of two or three of our leading breeders.

But what is really at the bottom of this perpetual strife for Aberdeenshire Shorthorns? They cannot compare with the English types for beauty or majesty of character, and on this score serious fault has been found with them. After all, however desirable it is to have beauty wedded to utility, it is not a point upon which the practical breeder will be inclined to haggle. The perfect type of Shorthorn has yet to be evolved, and although what is regarded as the Scotch type is frequently weak in character, it has something which is infinitely more preferable—it satisfies the butcher. That is pre-eminently the function of the Scotch Shorthorn, but it has been subjected to rather unwarranted criticism over its presumed inability to fill the pail. It was very far from Cruickshank's idea to produce a Shorthorn that did not maintain the cosmopolitan character of the breed, and Aberdeenshire breeders are still convinced that the cry of pedigreering the milk away has no foundation in fact, so far as their type of cattle is concerned, although they claim pre-eminently to have satisfied aspirations with what must first be regarded as a butcher's beast.

It is clear that even those from whom we might almost expect the bitterest opposition are gradually seeing the fallacy of refusing to unite with their milking Bates cows the Scotch sires. In the end it is a matter of £ s. d. vs. either prejudice or policy. It is the most popular cross nowadays, and reflects advantageously upon both parents. It is essential, of course, that the milking capacity of the Shorthorn be maintained, and too much attention can scarcely be given to that function of the breed. But it is a mistake to suppose that flesh-bearing cows are necessarily devoid of pail-filling ability.—*Farmer and Stock-breeder.*

Give the Colts a Good Start.

Starve a colt the first and second winters and you are on a fair way to raise a "plug," no matter how good the breeding. The idea that it toughens colts and fillies to allow them to rough it on poor feed is altogether without foundation, and is often offered as an excuse for negligence because it is cheaper and easier. It pays to feed young horses liberally with grain, as when it is assimilated it becomes the best class of horseflesh. Starved horses never made anyone a dollar and never will, as they mature slowly into cheap stock that, through lack of proper development, have a tendency to go wrong in their legs and digestive organs. The old Scotch proverb, that "the flesh born on a foal is the most valuable and should never be lost," is as true as anything that was ever written, and if that flesh is once lost it costs far more to replace it than to have kept it in the first place. There is a limit to the capacity of all horses as to the amount that may be fed them, for what is not digested and assimilated is more than wasted. It does harm and gives rise to trouble; so that it is necessary to feed with judgment as well as grain, while good hay should not find a substitute in straw or cornstalks. In the fall especially should the feeding be generous, as the drain on the system of growing a heavy coat of hair should not be allowed to detract from the condition of the animal, as the old saying, "The animal that is in good condition when cold weather comes is already half wintered," contains an element of truth. It is also a bad practice to keep horses, either young or old, out in cold and storms with the idea that it toughens them. Occasionally those who try this plan have to purchase horses in the spring to do their seeding.

In feeding and caring for stock of any kind we must not forget that all waste tissue, heat, and action must come from the feed, as well as the growth of new material, be it bone, flesh or hairy covering, and for this reason more grain should be fed in the fall than at any other season to growing

colts. A proportion of new corn is relished with the oats, and it is both stimulating and nourishing. If well-cured clover hay is used, less grain is needed than if timothy is fed; but in any case, if the animal is not growing and gaining, the provision should be improved.

Ottawa Pig-Feeding Experiment.

Mr. J. H. Grisdale, Agriculturist at the Central Experimental Farm, Ottawa, embodies the results of eight years' experiments there on pig-feeding, from which he draws the following conclusions:

SUMMARY.

The experiments conducted, and reported upon as above, seem to indicate that:

1. It will not pay to cook feed for swine where economy of pork production is the sole consideration.
2. There is a gradual increase in the quantity of feed consumed for every pound of gain in live weight after the average live weight exceeds 100 lbs.
3. The most economical time to slaughter swine is when they weigh from 175 to 200 lbs.
4. The greatest and most economical gains are made when the swine are able to eat the most feed in proportion to their weight.
5. Frozen wheat may be used as a profitable feed for swine.
6. Skim milk adds most materially to the value of a grain ration and 100 lbs. mixed grains equal about 700 lbs. skim milk. The relative value of skim milk in any ration varies with the amount fed, the poorest return per pound fed being obtained when the proportion of skim milk to the total food is the greatest.
7. The average dressed weight of swine is about 76.44 per cent. of the fasted weight.
8. Skim milk is a most valuable adjunct to the grain ration, when hard flesh is desired.
9. Type of animals fed influences character of meat more than breed; i. e., the fact of an animal being a Yorkshire or a Tamworth will not insure a good bacon carcass, but they must also be of a rangy type, and fed in a certain way.
10. Feeding mixed meal (barley, peas and oats) with milk usually insures firm meat.
11. The greatest gains from a given amount of grain appear to be made when it is ground and soaked for 24 hours. Part of grain fed whole is frequently voided before being digested.
12. Mixed grains are more economical than grains fed pure.
13. Pigs whose rations are limited, make, on the whole, more economical gains than pigs that are rushed.
14. Maturity or ripeness of the animal affects the quality of the flesh.

At Buffalo in 1901.

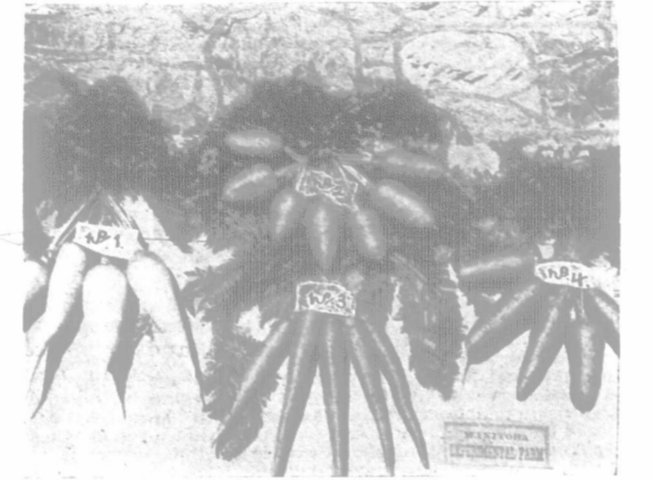
In the FARMER'S ADVOCATE for November 20th, reference was made to the proposal to revive at Chicago a fat stock exhibition befitting the city and the western interests that center there, and which, it was hoped by those promoting the idea, would rise to the dignity of an international character by again attracting Canadian exhibits. In the meantime, events are shaping towards a big exhibition of live stock at the Buffalo Pan-American Exposition in 1901, to which Congress has already given its recognition by a generous subvention, and the promoters have effected a masterpiece by securing for Director-General the services of Hon. W. I. Buchanan, whose executive abilities were crowned with such marked success in the administration of the Agricultural Department at the World's Columbian Exhibition at Chicago in 1893. Since that time he has been rendering the United States interests distinguished service as its representative in the Argentine Republic. With the memories of their Chicago achievements of '93 in mind, the stockmen of Canada will naturally follow with interest the unfoldment of plans for that department at the Pan-American, and whether individually or in a more comprehensive way, measures will no doubt take shape so that the "studs, herds, and flocks" of the Dominion will be appropriately represented at Buffalo.

Public Stock Sales.

The question whether public auction sales of pure-bred stock are in the interests of the breeders generally or not is one that will bear discussion. It is probably true that as a rule better average prices are made by private contract, taking the years as they come, than are made at auction sales. In this regard much depends upon the business ability and tact of the seller, and quite as much on the quality, breeding, and condition of the stock to be sold. In order to share in the best prices going for stock of any class, the first desideratum is to have animals ranking as nearly as possible with those of the most generally approved breeding, type and quality, and the next to have and keep them in such condition that they will be attractive and catch the eye of the prospective buyer. This, of course, applies equally to private and to public sales. While the system of doing business by private contract is and will continue to be the general custom, being, as a rule, the most convenient and least expensive, there are occasions and circumstances where it is necessary or expedient to call a public sale and to dispose of an entire stock, or a portion of it, by public compe-

tion as the readiest means of dispersal. The necessity of closing or dividing an estate, or of raising money for any special purpose, a change from one line of business to another, the fact of being overstocked for the stable accommodation or of being short of feed owing to an unfavorable season in the district, are all legitimate reasons for the adoption of the public vendue as a means of bringing buyers and sellers together, and may be to their mutual advantage.

The question of the advisability of establishing annual or other periodical auction sales is another question, and one on which there is room for difference of opinion. Judging from observation of the experience of those breeders who have tried this system in Canada in the past, we cannot say that we are sanguine of the prospects for success. The fact that so many have started out with the purpose of holding such sales, and so few have continued them for any considerable number of years, is liable to lead to the conclusion that for the seller at least the results have not proved satisfactory. The failure of one or of a number to make a continued success of such sales is not, however, by any means a conclusive argument against the system. In these later days, and in the hands of other men, they may meet the expectations of the most sanguine and prove fairly successful. Annual sales have apparently proved satisfactory in Britain and to a limited extent in the United States, where they are evidently on the increase. We see no valid reason why they should not work as well in this country, especially in the case of large herds, from which a selection of a considerable number could be made each year, and if a number of breeders, who are in a position to make such an offering, would arrange to hold their sales on successive days, buyers would have an extra inducement to come from a distance, as the expense of one trip would practically cover all the sales of the series, and each would share in the benefits of co-operation. Besides this, the other breeders throughout the country would benefit from the presence in the country of visitors who come to the sales meaning business, who may not find at



FOUR TYPES OF CARROTS GROWN AT BRANDON EXPERIMENTAL FARM, 1899.
No. 1, Iverson's Champion (white). No. 2, Oxheart. No. 3, Long Scarlet Altrinch. No. 4, Half-Long Chantenay.

these sales what they want, and would take advantage of the occasion to visit many other herds, and thus the benefits of the occasion would be extended far beyond the sphere of the original sales. In this way any objections which may be made to public sales are met, and they may well be made to do good service in giving an opportunity for all to secure fresh blood from strong herds, to the improvement of the breed generally and the enhancement of trade.

The desire has often been expressed by breeders, both publicly and privately, that men of large means would, as they do in Britain, take an interest in the raising and distribution of high-class pure-bred stock, and it is gratifying to find that this wish is now being realized to a very considerable extent by the enterprise of such men, and that they have set their ideals high and will import and breed from only the best obtainable. The disposal of this class of stock by public competition, where the buyers are free to name their own prices, is surely a helpful means of distributing meritorious animals, and cannot fail to improve the general stock of the country as well as that of professional breeders.

The men who risk a public sale virtually put themselves in the hands of the public, and are entitled to fair consideration and encouragement as long as they do their part honorably and above board, but the moment they resort, on any pretext, to questionable methods, confidence is properly gone, sympathy ceases, and the idea of a continuation of annual sales has met the beginning of its decline. While this is true, it is well to remember that breeders and prospective buyers who attend the sales owe a duty to the seller which justice to him and the retention of their own self-respect demands that they faithfully perform by mentally putting themselves in his place, remembering the expense he has assumed in advertising and bringing together and entertaining the company, and should do nothing from selfish motives, by word or inference, to prejudice his interests. The day is fairly his who has assumed the responsibility of the occa-

sion, and the man who attends a sale with the dominant idea of doing business for himself at the expense of another by depreciating his stock and inducing buyers to see his own before investing has a very low estimate of the code of honor which should exist between brother breeders. The broader and more generous view, which recognizes the rights of others and the general good, will be found in the long run to redound to the advantage of all concerned, individually and collectively. It is clearly in the interest of all that values be well sustained, and as the prices made at public sales are as a rule the only ones published, they have a considerable influence in setting the standard for private contracts. A spirited and successful sale makes everyone present feel better and has a reflex influence for good over a wide circle. To the realization of such a result each one can contribute by showing a sympathetic interest and lending a helping hand.

Stall Feeding of Fattening Cattle.

To the Editor FARMER'S ADVOCATE:

SIR,—I fear that the giving of my little experience as to fattening cattle may not prove of much benefit to your many readers, for we have only finished two or three bunches of cattle in our stables, our line being more in feeding stockers and finishing them on grass. We aim to feed them in the stable, so as to give them a good "send-off" to finish early on the grass, in order to be away or well advanced in flesh before the usual midsummer drought or fly season, and then filling the late grass with stockers ready for the following winter and summer. As to the best way of attaining all this, we can only express our opinion, acknowledging that perhaps we do not practice all we preach. As to the feed, we never have roots. Our succulent food is corn ensilage. This, with cut straw, timothy hay and meal, is all the food we use. We try to have good silage. The cut feed is made when we thresh, being done all in one operation, as fully described in a former article. We aim to stable the cattle before they fail in flesh in the fall. With what little experience we have of stabling cattle loose, we would much prefer tying them up, being a saving of food as well as bedding, which means food in most cases.

As soon as possible after stabling the cattle, give them a good application of some insecticide. Kerosine emulsion is preferred, as it clears the skin of scurf as well. The emulsion is easily applied with a corn scrub-brush on the end of a 6-foot handle. Two or three applications during the winter is all that is necessary generally. Two-year-old steers of about 1,050 or 1,100 lbs. weight, and of a growthy, well-built kind, are the best stockers. More matured steers, weighing about 1,200 or 1,300, are good to fatten. They, instead of growing so much, lay on flesh, which is all-important. We feed about 40 lbs. silage, 10 lbs. cut feed, and 6 or 8 lbs. meal to each stocker per day, dividing into two feeds, having always a feed mixed ahead so as to all taste alike. To fatten cattle we feed 45 or 50 lbs. silage, 10 or 12 lbs. cut feed, and from 10 to 14 lbs. meal, giving all the cattle one feed of hay in the day, as much as they will eat. For stockers we prefer corn meal and oatmeal (or bran), 2 to 1; and to fatten we prefer peas and oats (or bran) 2 to 1. The prices of the different kinds of grain rule us somewhat. It is best to commence mealing cattle as soon as they are put in, so as to not let them lose any on the start, being careful to not overdose them with that or silage. As cattle are not all built constitutionally alike, you must be ruled by judgment a great deal as to what each steer requires or can stand. We like to put about half the meal in the silage mixture and give the other half in the manger. By hydraulic rams water is forced to the stables, and, having water troughs in front of the cattle, they are never turned out to water, which is indeed a pleasure, especially on a stormy day.

We have given sulphur to cattle. A teaspoonful a week in their salt is about enough. It keeps the blood in good order, and aids to keep them clear of lice. Our programme for the day in a stable of 50 head of cattle is as follows: At daybreak feed the silage mixture, and while they are standing forward is a good time to clean out the stables. When you are through, perhaps some of the hearty eaters need a little more ensilage. We have the water taps open while we are going over them. Meal them, and get out of the stable, so as not to disturb them, letting them lie down quietly. Some winters we practice feeding hay at noon, but find they do as well by not being disturbed till 4 o'clock in the afternoon. We feed them their ensilage again, filling water trough as well, and then, after mixing the feed for the next day, we give them plenty of hay, which they will eat at off and on through the night. We never use a lantern unless to see that they are all right at bedtime. Every farmer has his own way of feeding, and, of course, likes it. This is our way, and we like it.
JOHN B. SHIPLEY.

Middlesex Co., Ont.

Best I Have Ever Seen.

E. E. ROBINSON, Aroostook Co., Me.:—"Gents, find enclosed \$1.00, for which you will please send the FARMER'S ADVOCATE to J. Benn, Houlton, Me. He has been looking my papers over and is well impressed with it. I have been taking the FARMER'S ADVOCATE one year, and think it is the best I have ever seen for people looking for topics on advanced farming, etc."

Description of Wellington F. Justin's Farmhouse.

(SECOND PRIZE.)

FARMER'S ADVOCATE:

GENTLEMEN,—I have pleasure in mailing you plans and specifications, also photo, of our residence for competition for the prize you offer in *ADVOCATE*. The house was erected in 1897, for the accommodation of a small family on 100-acre farm in the township of Trafalgar, County of Halton, Ont., and cost when completed (not counting proprietor's work for teaming material), about \$2,000.

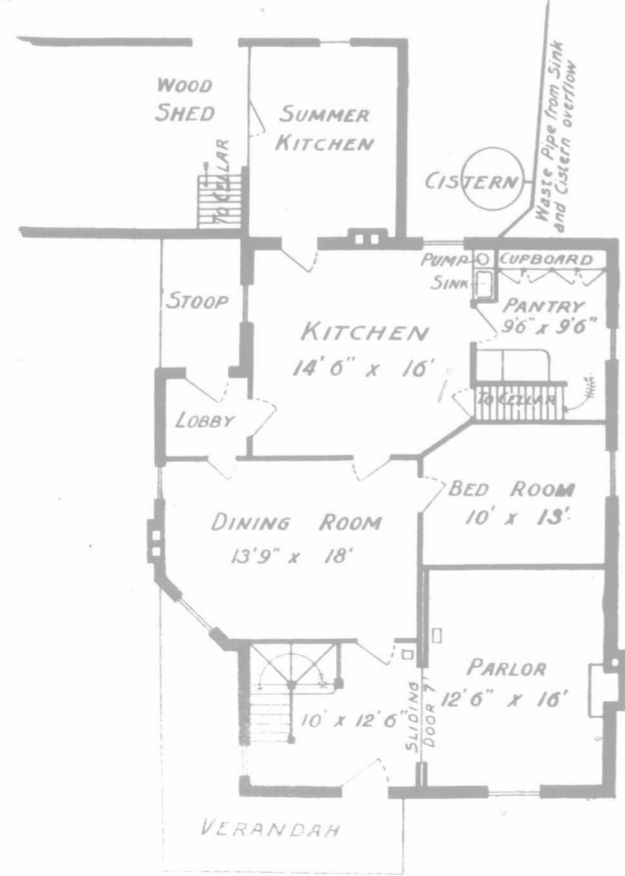


RESIDENCE OF WELLINGTON F. JUSTIN. SECOND PRIZE IN FARMHOUSE PLAN COMPETITION.

Material Used in Construction.—For foundation stone—Limestone beneath the surface of ground and dressed freestone for portion above (two feet above); also dressed stone sills for all windows. Brick—No. 1 pressed brick for outside, and discolored hard brick for inside wall, all laid in colored mortar with beaded joints. (See "Specifications.") It took about 35,000 brick, at a cost of \$9.00 per M, delivered at nearest railway station. The building is covered with No. 1 black slate, which cost about \$100 more than No. 1 shingles would. All the outside woodwork received three coats of paint, and inside on ground floor is finished in oil. I would suggest all inside work finished in oil, thus leaving the natural wood. (See "Specifications.")

For size of house see plan—scale 1/4 in. to the inch (four feet to in.). For a larger family, building could be extended, say ten feet farther back, thus making more kitchen room and also more bedrooms for servants, etc.

The parlor is supplied with a first-class mantel (oak) and an English fire-grate set on tile; bath room supplied with a water tank to hold about 50 gallons, also a steel-clad, nickel-plated bath tub, 5 1/2 ft., and a marble wash bowl; soft water being forced up to tank from pump below in sink in kitchen. (See plan.)



GROUND FLOOR PLAN OF WELLINGTON F. JUSTIN'S HOUSE.

The chimneys are all tile flued, and extend from cellar up, always keeping cellar well ventilated; cellar excavated 3 ft. and having a grade-up of 18 inches, leaving 2 ft. of stone wall clear above surface of soil.

We had a few changes made in plan after it was submitted to me, which you will observe. (The "Specifications" explain all.) We are well pleased with our house, and would not change any part now; would perhaps add one or two more mantels and grates, say, one in dining-room, also one in large chamber above to use in case of sickness.

I hope the above may meet with your approval for a prize, and may be beneficial to some other party who intends erecting a home. The whole building was planned and erected with a view to economy and also convenience for housekeeper. It is quite easy to understand all from plan and "Specifications," which were followed out all through. The same scale extends through all.

WELLINGTON F. JUSTIN.
Halton County.

SPECIFICATIONS.

Stonework.—Build all stone walls for main house 6 ft. 6 in. high and 18 inches thick, to be well bonded, and to have as many stones to extend across wall as possible; all angles to be built plumb, and all walls left level to receive bond timber for joist to rest on; all cellar walls to be neatly pointed inside, and outside walls above ground to have struck joints to be done in neat, workmanlike manner. Build in all door and window frames at their proper levels.

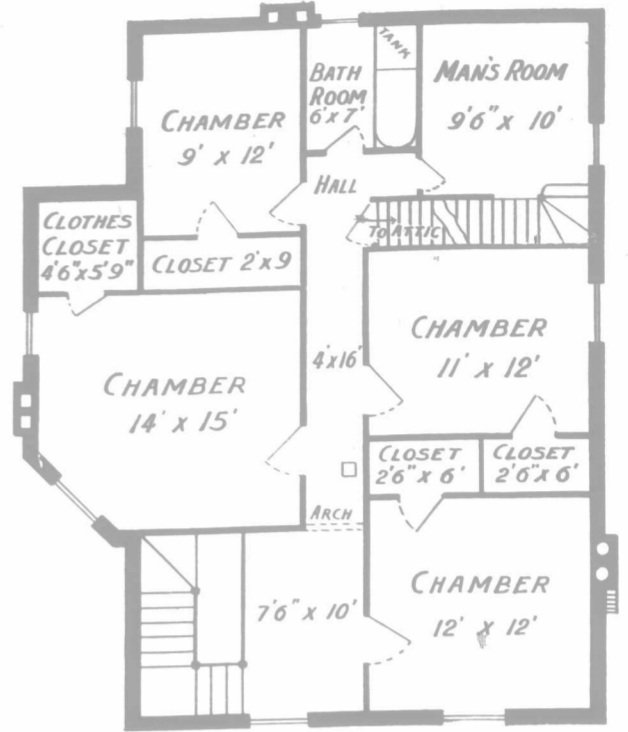
Build all flues for chimneys; build in all stovepipe collars or ash-pit doors that may be necessary, or that is furnished by proprietor; build stone walls to form entrance to cellar; build stone walls for front veranda where shown. Proprietor to furnish all material for stonework and to do all excavating and teaming; stone mason to set out building and to be responsible for correctness of same; build the central wall in cellar with brick or stone as afterwards directed.

Brickwork.—Proprietor to furnish all material for brickwork, with the exception of mortar color, and do all teaming; contractor to furnish mortar color and all material for scaffolding, the said scaffolding to remain for other trades; contractor not to use any material belonging to carpenter in building scaffold; proprietor to bring and return scaffold material when building is completed; build all walls colored red on plan with pressed brick furnished by proprietor, bricks to be carefully selected and the best class to be used on front of building; brick to be laid with neat bead joint in colored mortar, and not to rise more than 1 inch to every four courses—that is, 1 inch of mortar to every four courses laid; all walls to be carried up plumb and level, with joints plumb over each other; turn neat brick arches or set stone caps (as may be afterwards decided by proprietor) in neat and proper manner; build chimneys where shown to be one foot higher than roof ridges, to be well plastered inside from top to bottom; build tiles in chimneys on north side of building, also all chimneys to be finished with tiles on top throughout; build into chimneys all stovepipe collars that are required, and rods to stay chimneys to roof; build in 2x4 bond timber where directed, the same to be placed 9 inches from outside of brick wall to inside of bond timber, this to be strictly carried out; beam fill all joist on ground floor, and from plate to roof sheathing; plaster inside of brick walls one coat of mortar before strapping is done.

Carpenter and Joiner's Work.—Contractor to find his own board, to furnish all material for carpenters' and joiners' work, also all nails, spikes, or other hardware hereafter specified, and that is necessary for the proper completing of building according to plans and specifications; the material for carpenter work to be of the best quality of hemlock, and of the following dimensions:—Ground and first floor joist, 2x10; ceiling joist, 2x8; rafters and ridges, 2x6; angle rafters, 2x10; plates, double, 2x9; studding and bond timber, 2x4; sills, 4x6; the ground and first floor joist to be laid level, with crowning side up, at 16-inch centers, the first floor joist to be brought all to same width throughout, all joist to have one row of bridging between each bearing, ceiling joist to be placed 16-inch centers, and to extend over walls to form cornice; rafters to be placed 18-inch centers and well spiked to plates, as shown in drawings; cover roof with good sound, dressed inch lumber, well nailed to rafters, and left ready to receive slate; build saddles behind chimneys, and leave ready for tinsmith to cover with galvanized iron.

Form cornice with 9-inch fascia board and soffit, sheathed with narrow beaded sheathing, with brackets placed in pairs, as shown, with large bedmoulds cut between; gable trimmings to be carried out as shown, with panel verge boards, and large bracket at attic window to stop cornice; large wood brackets under angle on south side. Build front veranda with 2x8 joist, 1 1/2" flooring, not more than 3 1/2" wide, of good quality; 1 1/2" beaded sheathing on roof, 2x4 dressed and beaded rafters, and covered with No. 1 cedar shingles laid 1/4" to the weather, 6x6 turned and moulded posts, with turned 4 in. cornice (all to detail). Build outside steps to all outside door, with 2-inch strings, 1 1/2" treads, and 1 riser, to rest on large stones or cedar posts. Build side veranda where shown, with joist, floor and roof same as front veranda, 5x5 chamfered and moulded posts, with brackets and bedmould, Put up all inside partitions where shown, with 2x4 studs placed 16-inch centers, with 4x4 door posts. Strap all outside brick walls with 1 1/2"x2" strapping, well nailed to 2x4 bond timber, to be plumb and straight, and placed 16 centers. Kitchen and pantry floors to be laid with surface-dressed, inch, well nailed to joist, and re-laid after plastering is done with No. 1 birch flooring not more than 2 1/2" wide, to be kiln dried, same as detail; all the rest of ground floor and first floor laid with 1-inch pine flooring, dressed and matched, to be of good quality, free from large knots, and not more than 1 1/2" wide.

Attic laid with good, sound, surface-dressed, inch, well nailed to ceiling joist; parlor, hall, and dining-rooms to have 6-inch face-moulded casing, with hand-sawed head and moulded base blocks, with 10-inch double moulded base, with carpet strip at floor; all the rest of rooms to have 5-inch casings, with turned corner and moulded base blocks, with 8-inch moulded base and 1/2" round. Kitchen to be sheathed 10 ft. 2 in. high, with narrow matched and beaded birch, not more than 2 1/2 in. wide, and of a uniform color; all trimmings of kitchen to be birch; kitchen ceiling to be sheathed with narrow beaded and matched birch, same quality as wainscoting, and finished at walls with birch bedmoulds and turned corner blocks.



UPSTAIRS PLAN OF WELLINGTON F. JUSTIN'S HOUSE.

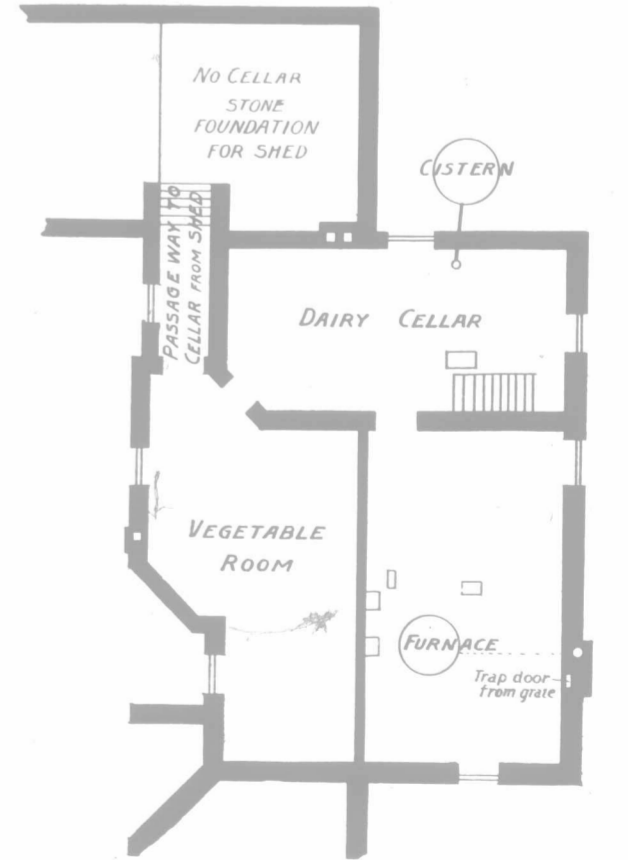
Bath-room sheathed 2 ft. 10 in. high, same as kitchen; all the rest of rooms on ground and first floor, except closets, to have 8-inch moulded base, with 1/2" round at floor; closets to have 6-inch square base and 4-inch square casings, with penrail and shelf, and at least half a dozen coat and hat hooks. All the ground floor trimming to be for oil finish, of first quality of pine, except kitchen; all the birch sheathing of kitchen to be kiln dried, and all trimmings to be well smoothed before being put on.

Front doors to have 2x8 moulded and rabbeted frame, with 1 1/2" door made to receive glass in top panel, of neat design, hung with three 4x4 loose-pin steel butts; a good front door set in keeping with building; side and back door to have 3x8 moulded frame, with 1 1/2" door hung with three 4x4 loose-pin steel butts and good mortise locks; all the rest of doors on ground floor to be 1 1/2" five panels, O. G. raised, kiln-dried doors, hung to 1 1/2" frame with 3x3 1/2" loose-pin steel butts, and good mortise locks of approved design; all doors on ground floor to be made for oil finish; side entrance to be made to receive glass in top panel, to have six margin lights; first floor doors to be 1 1/2" five-panel doors, hung with 3x3 loose-pin butts and good mortise locks. Outside doors to have white oak sills; cellar to have 1/2" matched and battened doors hung to 10x8 frames, with 6 T hinges and thumb latch. All windows on ground and first floor to have box frames made in usual way, with 1-inch pulley stiles, 1 1/2" hanging stiles, 2x6 heads and sills, 2-inch iron axle pulleys, and hung with cast-iron weights and Silverlake sash-cord; 1 1/2" sash hung with strong sash locks and lifts; attic and cellar windows to have 2x6 rabbeted frames, 1 1/2" sash hung with 3-inch steel butts and metal buttons; cellar window frames to have white oak sills; put good outside blinds on all windows, except cellar and attic, hung with strong blind hinges and fastenings.

Pantry fitted up with cupboard, where shown, with cupboard inclosed at bottom and top, with sheathed and battened doors hung with 3-inch butts and cupboard catches; form entrance to cellar from pantry with 2-inch strings and treads, to be dressed; build stand for sink where shown, and enclose with small door (sink to be furnished by tinsmith).

Build back stair with 1 1/2" strings and treads, 1/2" risers, treads and risers housed into strings and well wedged; attic stair made similar to back stair, front stair to have 1 1/2" strings, 1 1/2" treads, and 1 riser, treads and risers housed into and well wedged into strings; wall string moulded to correspond with base in hall; front string paneled and moulded and sheathed to floor to form closet; to have 6x6 turned birch newel at bottom and 5x5 at landing, and top with 3x4 birch rail grooved to receive 1 1/2" birch turned balusters, all to be of good quality; form panel at bottom of stair, to be neatly moulded, and put rail with turned spindles from newel post to wall (all to detail). Put in all boxes for stovepipe collars in ceilings and partitions where shown or directed. Build outside cellar steps where shown, with 2-inch strings and treads; put up partition in attic to support rafters where shown.

Frame deck with joist 2x10, placed 2-ft. centers, well spiked together; form manhole on top; roof of deck to be covered with matched inch, to be left ready for galvanized iron. Build wailer in pantry where shown, to extend to cellar, and enclosed in cellar with screen door, and in pantry with sheathed and battened door, with all the necessary ropes and pulleys made to work freely to and from cellar; form flour-bin beside wailer, with table-top over flour-bin, made to slide on rollers with two



CELLAR PLAN OF WELLINGTON F. JUSTIN'S HOUSE.

draw pulls. Sliding door between hall and parlor to be 7 feet wide, 1 1/2 inch thick, 8 feet high, and hung with Lane's parlor door hinges, with handy pulls; partition to be sheeted between studs opposite door slide.

Plastering.—Lath all walls, ceilings and partitions of ground and first floors of main building with good quality of sawn lath, well nailed and joints well broken; plaster all the above lathed work with two coats of mortar run into beds, with the proportion of lime, sand, and hair, to be run off at least one week before being put on; the first coat to extend to floor, and behind all casings; last coat furnished with white lime and plaster of Paris, with the proper proportions of each, and to be well troweled; lath and plaster ceiling of room in cellar under kitchen, one coat; put up centers in parlor, hall and dining-rooms; build in all stovepipe collars in ceiling and partitions where directed; the contractor to furnish lath, lath nails, and hair; proprietor to furnish all balance of material and do all teaming; the contractor to furnish his own scaffolding and board; put cement floor in cellar under kitchen.



RESIDENCE OF MR. W. W. REVINGTON. THIRD PRIZE IN FARMHOUSE PLAN COMPETITION.

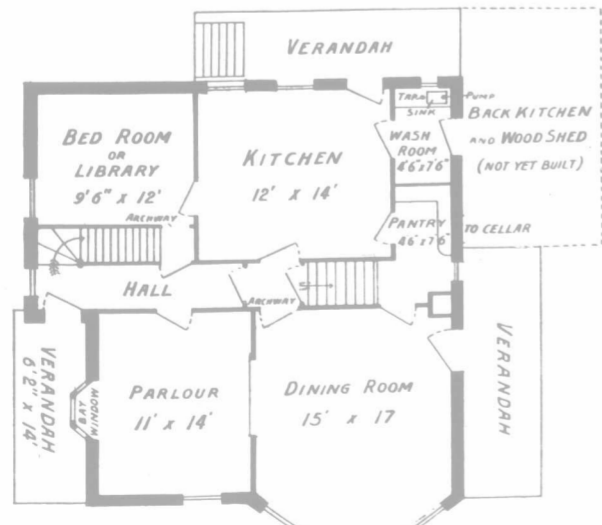
Tinsmith Work.—Tinsmith to furnish all material for galvanized iron work, or anything below specified, all iron to be used 26 gauge, and of good brand; furnish an 18-inch steel sink for pantry; put good galvanized iron eavestrough on main building; put square conductor pipes of galvanized iron of sufficient size to carry off all water, to be placed where directed; put small trough and conductor on front veranda; all conductors to be connected with boxes or other fixtures that may be supplied by proprietor.

Painting and Glazing.—The painter to furnish all material for painting and glazing, to be of the best quality of the several kinds required; knot-stop and prime the whole of the outside dressed woodwork with the best oil and lead them to receive two more coats with colors as directed by proprietor; the veranda floors and roofs to be painted; eavestrough and conductor pipes to receive two coats; all the inside work on ground floor to receive one coat of oil, and well rubbed off before being dry, then to receive two coats of hard oil, to be well sandpapered with No. 1 paper after each coat; all woodwork to be stained, if desired by the proprietor, and if so, the said stain to be done in oil; the woodwork on front stair to be rubbed; all woodwork on first floor to receive three coats, with colors as directed, to be well stopped and puttied, and sandpapered after each coat before receiving another; closets to receive two coats; kitchen and pantry floors to be oiled; the outside blinds to be painted to suit proprietor; prime and glaze all windows of main house with double diamond glass of good quality, to be well tacked and puttied; attic and cellar to be glazed with star glass; all frames to be primed before being placed in building; cellar doors and windows inside to receive two coats.

Description of Third-Prize House Plan.

To the Editor FARMER'S ADVOCATE:

DEAR SIR,—Enclosed you will find plans of a farmhouse completed this year, and for comfort and convenience is considered hard to beat. It has ample accommodation for a family of ten, and if more room is needed the upper flat or garret, as can be seen by the photo, will furnish two rooms 12x16 feet each extra, making seven bedrooms in all. We only use this for a storeroom. This house is 32 1/2 x 33 feet, the nearer square the more cubic feet it contains, as you are aware, and was built with first-class material and workmanship for \$1,500, not including board or our own labor, hauling materials, etc. The contracts were let last season and before the sharp advance which has taken place in the price of build-



GROUND-FLOOR PLAN, W. W. REVINGTON'S HOUSE.

ing materials, so that some of the work would probably come higher to-day. Some might fancy a wider front hall, and if so, it is easy to add more space.

The basement floor is laid with cement; cistern plastered also with cement. All woodwork got six coats of paint or varnish. The rooms are all large and well ventilated; there being also transom fanlights over the doors of the up-stairs rooms. The basement is lathed and plastered, and has a cement floor and is 6 ft. 3 in. high; the ceiling of first floor is 9 ft. 6 in. high; the ceiling of second floor is 8 ft. 10 in. high; the ceiling of attic is 8 ft. high. The attic has a door on top that leads on deck. There is a closet off center bedroom beneath the stair leading to attic. The basement is of stone, walls 22 inches thick. The dividing wall of basement is 9-inch brick wall. The large part of basement (14x25) is divided into two sections by a partition [NOTE.—Our artist has not shown this on the plan.—Ed.], separating the dairy room from the room for sealed fruit and provisions. The dumb waiter goes up from the latter to the corner of the dining-room, next to pantry, and there is an opening, or, rather, small door, between, making it very convenient, so that things can be taken off or put on waiter either from pantry or dining-room. The walls of the house are one foot, brick, with inch airspace, lathed on strips nailed to bond timber. The inside stair leading from the basement comes out under back stairs and opens into the pantry. There

is a closet under the front-hall stairs, and we find it very convenient, as it receives the rubbers and coats before going into the parlor. The house is heated with a furnace, shown in basement plan. With regard to water supply and drainage, the cistern shown in rear corner of cellar, under wash-room in first floor, supplies soft water for bath-room and sink. The kitchen stove is arranged with what is called a "water front," which acts as a heater for the water and which discharges hot water into a 30-gallon range boiler set on a stand beside the stove, and from this is distributed hot water to bath-room above. The cold water is first pumped up from the cistern by a hand force pump next sink in wash-room (adjoining pantry) to the lead-lined tank in the attic over bath-room, and which acts as a distributor, pipes running down to stove heater and to sink. The waste-water pipes from bath and sink run downward by cistern wall and into a five-inch tile drain, into which the cistern can be drained away if required. Hard water is to be brought into house through pipes from spring well. The dumb waiter from cellar to pantry, worked by a rope lever and double pulley, is very convenient. The kitchen is ceiled with white ash lumber, sized 3 inches wide and beaded and varnished. The bath-room is lined with pine lumber, 4 ft. high, and oiled and varnished also. There is an air space or flue in each chimney for ventilation, with an air slide for each floor. The house was not occupied when I sent the plan, and therefore not quite completed.

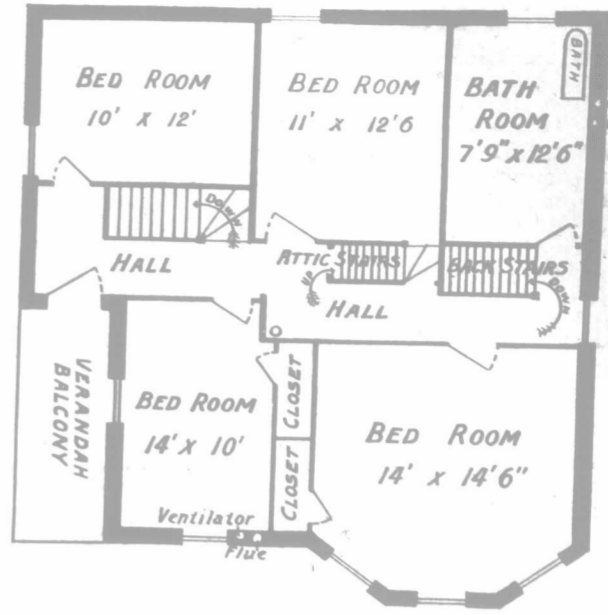
The work was let by tender as follows:

Masonry and plastering	\$ 165 00
Painting and glazing and furnishing all glass	130 00
Carpenter	115 00
Slatting	110 00
Furnace	80 00
Furnishing door frames, sashes and surbase lumber	300 00
12,600 ft. hemlock lumber and scantling at \$100, and 140 bunches lath at 18c	125 00
The flooring and other lumber cost	70 00
205 bushels of lime at 20c	41 00
32,250 brick at \$4.00 per M.	130 00
Hardware	23 00
Eavestrough	20 00
Cresting	14 50
Plaster of Paris	8 00
Tile	6 00
26 loads of sand (delivered) at 60c.	15 50
8 barrels of cement at \$1.25 per barrel.	10 00
Hair	6 50
Bath-tub, basin, pump, and plumbing, all complete	100 00
For extra expenses	\$1,469 50
	30 50
Total	\$1,500 00

WILBERT W. REVINGTON.

Farmers' Institute Meetings.

A series of Institute meetings proposed by the Department of Agriculture for December has, on account of the local elections, been postponed until after the Xmas holidays. One meeting only will be held, it having been arranged for prior to the announcement of the elections. On December 14th a meeting will be held at Posen.



UPSTAIRS PLAN, W. W. REVINGTON'S HOUSE.

Renew Your Subscription.

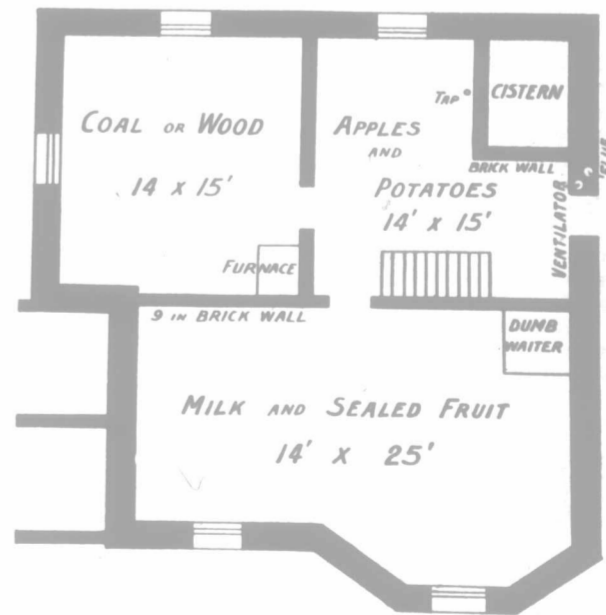
We request our subscribers to be kind enough to remit their subscriptions for 1900 promptly, so as to lighten the extra work upon our staff at the end of the year, when the rush of renewals takes place. We are sparing no effort nor expense to give our readers the best possible service, and will certainly appreciate the early renewal of their support. Kindly make use of the first mail possible to remit your subscription, and oblige.

How to Secure an Extra Copy of the Christmas Number.

We beg to refer our readers to the announcement on page 629 of this issue containing references to a few of the special features that will appear in our Christmas number for 1899, to be issued on December 20th. As stated there, this superb number will be sent to every new subscriber for 1900. Nothing more appropriate could be sent as a souvenir or Christmas greeting to a friend. We have therefore decided to send an extra copy of the Christmas number (the price of which to non-subscribers is 50 cents) to any present subscriber sending us the name of one new subscriber accompanied by the subscription price, \$1.00. We trust that those who propose to avail themselves of this offer will do so without delay.

A Good Turn to Others.

A very large number of our subscribers are taking advantage of the exceedingly liberal offer which we make as follows. It is simply this: That you send us the names and P. O. addresses of two new subscribers and \$2.00 and we will advance your own subscription one year and mark the new subscribers paid till the end of 1900. This is a case where your effort will prove a triple benefit—to yourself (a free paper for next year), to your neighbor, and to the paper itself, by enabling us to carry out more completely the arrangements we have made for improvements in the FARMER'S ADVOCATE for 1900. New subscribers will receive the FARMER'S ADVOCATE regularly from the time they pay their dollar until the end of 1900, including our handsome Christmas number, 1899, which alone to non-subscribers will be 50 cents.



CELLAR PLAN, W. W. REVINGTON'S HOUSE.

Preparing Dressed Poultry for Exhibition.

An exhibitor exhibits to win, and with dressed poultry, as with other show stuff, that presented in most attractive form has a great advantage over even better exhibits carelessly prepared. At the coming fat stock shows, dressed poultry will play a conspicuous part, and as "old hands" are sure to be forward, the beginners should take every precaution not to be outdone in the last stages of preparation. From a pen of well-fattened birds the cockerels should be chosen that are young and soft-meated, and those that are not spurry and hard. Full, broad breasts, legs wide apart, broad, rather short backs, and short, stout yellow legs are all desirable characteristics. Having selected the best from among the well-fattened of this type, they should be kept for twelve hours without food before killing. Kill by stabbing in the roof of the mouth, and pick dry. Not even the fine outside skin should be broken, which will require great care, especially when the pinfeathers are being cleanly picked out. Pick the wings either clean or only the first two joints; all quill feathers should be pulled. All the down or hair should be taken off, the feathers neatly removed from the thighs, and none left at the joint of the shank. Pick the neck clean to the head. Fold the wings back. After wiping the carcass thoroughly with a soft, damp cloth, hang by the legs in a cool, dark place till the animal heat is all out. They should be shipped and shown undrawn, and generally with the heads on.

In preparing for shipment, wrap each carcass separately in clean wrapping paper, without bending or bunching the neck or body, putting an extra paper around the head, to prevent bleeding or staining. Pack only a few in a box, which should hold them without bending or crowding. Stuff the empty spaces with soft paper to keep the carcasses in place. Be sure that they arrive at the showroom in good season, before all the rest are arranged, as there is something in position, especially if the space is crowded. Well-selected and well-fattened birds, prepared according to these directions, will stand a good chance of meeting favor with the judges.

QUESTIONS AND ANSWERS.

Veterinary.

BLACK TEETH IN PIGS.

X. Y. Z., Oakland, Man.:—"Will you please answer in your next issue the following questions: Please describe 'black teeth' in young pigs, its cause and treatment? If one gets it, are the rest of the litter in any danger of doing so?"

[Black teeth in young pigs is not in itself a disease, but is merely the result of faulty digestion. The condition is certainly neither infectious nor contagious; but the cause that produces it in one pig of a litter is likely to operate on the others. The young of other animals, including those of the human family, are more or less subject to premature decay of the temporary or "milk" teeth. Change of diet, improved hygiene, and the removal of diseased and loose teeth will be found most effectual treatment.]

CHURNING SOUND IN THE HORSE.

J. S., Nanaimo, B. C.:—"What is the cause of that well-known churning, rumbling noise that some horses make while trotting, and what cure do you suggest, if you deem such advisable?"

[The "churning" sound heard in connection with some horses, when trotting or moving quickly, is generally believed to be due to an anatomical cause, viz., an undue length or relaxed condition of the peritoneum, especially that portion of it called the mesentery, to which the small intestines are attached. The sound is always most distinctly heard when the bowels are comparatively empty. I know of no specific remedy, either medicinal or mechanical.]

INFECTIOUS OPHTHALMIA IN CATTLE.

A SUBSCRIBER, Simcoe Co., Ont.:—"Please advise me concerning a disease of the eye peculiar to cattle of all ages; is very contagious. Out of a herd of forty-five, thirty were smitten, causing total blindness when both eyes were affected. This blindness lingers from six weeks to two months, after which they gradually recover without any treatment. Cause unknown. When in its first stages the eye is swollen and apparently painful. Discharge from the eye is clear and watery, a thick pink and white scum forms over the eyeball, which causes blindness. This gradually becomes smaller towards the center. Please give cause and treatment. Will they be subject to it again? My horses have had a similar trouble, the scum being white or sometimes red. This disease proves serious, resulting sometimes in permanent blindness, when the whole eye becomes white. Have tried them with a solution of sulphate of zinc and other prescribed cures. Please give this your attention."

[The disease spoken of is an infectious disease of cattle called ophthalmia. It has been prevalent in Western Ontario for about five or six years. It is caused by infection, the virus, in all probability, being conveyed in the atmosphere. The first symptoms shown are a swelling of the eyelids, an affection of the mucous membrane of the eye and lids, with a more or less copious discharge of tears from the eyes. The animal exhibits a well-marked intolerance of strong light or sunshine on the eyes

by keeping the lids closed when exposed. In rare cases she shows constitutional symptoms by a loss of appetite, and if a milch cow, a decrease in milk supply. Later the eye assumes a reddened appearance, which is usually followed by a whitish and glassy look. In severe cases there is a well-marked bulging of the eyeball, especially marked immediately over the pupil, and frequently in these cases there is an ulcer formed which ruptures and gives the eye a very nasty, raw appearance. When this stage is reached, or even before, there is total blindness for a time. When the disease does not take this form the inflammation gradually subsides, the eye, or a portion of it, having a whitish, glassy look, resembling a scum or film, but it is not a scum. The change of color is due to an effusion of lymph (the result of the inflammation) being deposited between the layers of the external covering of the eye. In most cases this gradually becomes absorbed from the circumference towards the center. I have never known the disease to occur in horses, but they are subject to a constitutional disease called specific ophthalmia, which simulates the cattle disease. After a few attacks the horse usually becomes blind from cataract.

Treatment.—If treatment is resorted to in the early stages the results are seldom serious, but if neglected it sometimes results in permanent blindness. At the first symptoms the animal should, if possible, be isolated; at all events, she should be put in a comfortable stable, partially darkened; all strong lights and drafts must be excluded. She should be given a laxative of 1 to 1½ lbs. of Epsom salts. The eyes should be well bathed three times daily with warm water and a few drops of the following lotion dropped in after each bathing: Sulphate of zinc, 1 dr.; fluid extract of Belladonna, 40 drops; distilled water, 4 ozs. If an ulcer appears it should be carefully touched once daily with a pencil of the nitrate of silver. If a whitish color remain over a portion or a whole of the eye, after the inflammation ceases, the following lotion should be used twice daily until it disappears: Nitrate of silver, 10 grs.; distilled water, 2 ozs.

J. H. REED, V. S., Guelph, Ont.]

Miscellaneous.

POOR RESULTS WITH HOMEMADE INCUBATOR.

R. S., Wentworth Co., Ont.:—"Last spring I bought a homemade incubator, one that is heated with a lamp by means of hot-water pipes, and put 100 eggs in it, and only got about 20 chicks. About 80 per cent. of the eggs were fertile, but the chicks died in shell at about the end of the second week. The temperature ranged from 100 to 103 degrees. The box had no ventilation, so I bored six ½-inch holes in the top and put in another lot of eggs. They came along fine until the end of the first week, when the embryo settled in a dark red ring on one side of the shell, and incubation stopped. Tell me the cause, and remedy if there is one. The eggs were turned every day."

[It is difficult to state exactly what is the cause, or causes, of the unsuccessful hatches. Homemade incubators are usually not the most desirable class, but occasionally someone gets a good hatch, which encourages them to try once more. During the first hatch the eggs may have been in need of air, or they did not "dry down" enough. If an egg does not evaporate sufficiently to allow the chick to turn about inside the shell just before hatching it cannot get out. If the temperature was taken from the center of the machine and registered 100 degrees during the last week, there was not heat enough. Did the temperature in the machine keep even all over—that is, were all corners as warm as the center? If the thermometer was not accurate there may have been too much or too little heat. One hundred degrees is not quite warm enough, especially at the last of the hatch. If the infertile eggs were not removed from the machine, the fertile ones would not be all of an equal temperature, as one egg gives off or radiates heat to the air or adjoining egg, and an egg with a live germ in it is several degrees warmer than an infertile one; therefore, when a fertile egg lies alongside another fertile egg there is less heat required to keep up the temperature. It is difficult to say from the letter exactly what was the cause of the poor hatch. I think in the second hatch the temperature must have surely gone wrong during the second week. There should be a regulator on every machine, as it is almost impossible to run a machine at an even temperature where one trusts to the exact amount of blaze in the lamp. Avoid a draft over the eggs or incubator.

W. R. GRAHAM,

Manager Poultry Dept., O. A. C., Guelph.]

MR. MEYER QUESTIONED ABOUT CARE OF POULTRY.

READER:—"I was much interested in the suggestive letter from your correspondent, Mr. Meyer, in November 6th issue, and as I have a large flock of hens that are getting up in years, and some of them not in any too good condition, I would like him to suggest a plan of feeding by which I can get them profitably ready for market in a month or so. I would like him to give details as to foods and feeding and the general management of the birds."

[Place your hens in flocks of 20 to 25, in pens about 10 feet square. See that every bird is free from lice, and that the pen is perfectly clean and kept clean. Have a good supply of grit, in the shape of fine gravel or any suitable material, and

pure water always before them. The kind of grain you should feed depends upon what kinds you have on hand, as we do not believe in buying much. Ground peas, corn or buckwheat, whichever you have, mixed in equal parts with ground oats and moistened with milk of any sort (sweet or sour), will make an excellent soft food. Do not make it sloppy. Feed this in troughs twice every day and always at night. Once a day feed corn or wheat in the trough, and always at night try to get them to eat some whole grain after they have filled themselves of soft food. The principal thing to avoid is keeping food lying before them too much. Keep them hungry enough to be ready for the next meal. To these foods add table scraps and meat whenever convenient. Keep their pen a little dark and the hens as quiet as possible.

J. E. MEYER, Waterloo Co., Ont.]

Chatty Stock Letter from Chicago.

FROM OUR OWN CORRESPONDENT.

Following table shows current and comparative live stock prices:

	Extreme prices now.	Top Prices		
		Two weeks ago.	1896	1897
Beef cattle.				
1500 lbs. up.....	\$5 40 to 7 15	\$6 70	\$5 70	\$5 45
1350 to 1500 lbs.....	4 80 to 7 00	6 50	5 65	5 50
1200 to 1350 lbs.....	4 25 to 6 75	6 40	5 60	5 25
1050 to 1200 lbs.....	4 10 to 6 40	6 30	5 50	5 25
900 to 1050 lbs.....	4 00 to 6 00	6 00	5 25	4 80
Hogs.				
Mixed.....	3 80 to 4 15	4 50	3 55	3 60
Heavy.....	3 70 to 4 12½	4 45	3 60	3 55
Light.....	3 75 to 4 05	4 45	3 52	3 60
Pigs.....	3 50 to 4 00	4 30	3 40	3 55
Sheep.				
Natives.....	2 75 to 4 40	4 15	4 50	4 65
Western.....	2 55 to 4 25	4 15	4 15	4 65
Lambs.....	3 75 to 5 30	5 75	5 40	5 85

The best cattle are the highest since 1884, but the market for unfinished cattle has lately been overstocked, and is just now very slumpy.

Cattle receipts at Chicago thus far this year 2,365,800, or 14,800 more than the corresponding period of 1896. Last December the run was small—174,255—so that 1897 will probably run out at least 25,000 ahead of the twelve months of 1896.

At the present time there is \$2.00 per 100 lbs. difference in the price of cattle that might be called pretty fair, and good, well-bred, thoroughly ripened beef.

Present prices for prime cattle are at the high point, barring a few Christmas sales, of the past 11 years. The following are among top sales that show what the right kinds are worth:

18 Wyoming grassers.....	1451	\$5.70
18 Texas corn fed.....	1345	6.35
71 Herefords.....	1132	6.40
125 Herefords.....	1379	6.50
15 Texas, meal fed.....	1345	6.75
17 Shorthorn and Angus.....	1323	6.75
15 Shorthorns.....	1738	6.75
16 Aberdeen-Angus.....	1439	6.75
42 branded rangers.....	1638	6.75
30 branded rangers.....	1515	6.80
14 Shorthorns.....	1614	6.80
16 Shorthorns.....	1552	6.85
16 cross-breds.....	1501	6.85
16 Shorthorns.....	1748	6.90
41 Shorthorns.....	1633	6.90
16 branded cattle.....	1569	6.90
16 branded cattle.....	1582	6.95
14 Shorthorns.....	1618	7.00
17 Herefords and Shorthorns.....	1331	7.00
18 Shorthorns.....	1480	7.00
17 Shorthorns.....	1504	7.15

There is now no doubt that 1900 will witness the inauguration of a great annual live stock exposition in Chicago. The plan was cordially approved by the American Association of Fairs and Expositions, the Red Polled Cattle Club, the Hereford Breeders' Association, and the Polled Durham Breeders' Association, the Shorthorn men, Aberdeen-Angus, Galloway, Cotswold and Shropshire Associations. The Shorthorn men adopted a resolution very similar to the one passed by the Hereford breeders, authorizing the trustees to expend \$15,000 in premiums next year, leaving it discretionary with them as to how much will be spent for the Chicago show and how much at fairs and other exhibitions. The Aberdeen-Angus breeders showed great interest in the Chicago show, and appropriated the sum of \$5,000 to be hung up in premiums for that important event. It is proposed to make this show a permanent institution. The Chicago Stock Yards management proposes to turn over the great new Dexter Park amphitheatre, which will soon be completed. The idea seems to be to make the show one for fat stock more than for breeding stock.

Fred V. Stowe, of Grimes, Iowa, had in 32 head of 1,578-lb. branded Angus cattle of the celebrated V-V brand. They were bred in Wyoming. Earlier in the season several consignments of the same cattle sold at \$6 40 to \$6 95, but the ones at \$6 95 were supposed to be better finished than to-day's cattle.

James Tobin, of Springfield, Ill., marketed 17 head of 1,504-lb. grade Shorthorn steers, which sold for \$7 15. The cattle were fed by C. B. McClelland, of Springfield. This is the highest price paid here for cattle since Dec. 10, 1891, when only eight head of fancy Christmas steers sold for \$7 15. With this exception, the sale is the highest since 1884.

Average weight of hogs last week, 248 lbs., the same as the previous week. Average weight a month ago, 236 lbs.; two months ago, 251 lbs.; a year ago, 233 lbs., and two years ago, 253 lbs.

A load of 1,546-lb. high-grade Shorthorn cattle shipped here from Texas sold at \$6 75, being within 5c. per lb. of the highest Texas cattle ever sold here, which was in 1882.

U. S. Beef for British Army.

Chicago packers are receiving large orders for corned and roast meats for use of the British army. Recently the packers had orders for at least 5,000,000 pounds, to be shipped within a week. Armour & Company shipped fifty carloads in one day, and twenty-five to go forward in a few days. Armour's shipments go to New York merchants, who stipulate in their orders that the consignments are "for use in Africa." The Libby, McNeil & Libby Company have several large orders for roast and corned beef.

British Cattle Market.

Liverpool, Nov. 27.—Market steady, at 5½d.; sheep, 5½d. London, Nov. 27.—Supply of cattle short; demand is good; market firm. States' cattle, 63d.; Argentine, 6½d.; Argentine sheep, 5½d.

Live Stock Exports.

The following is report of live stock shipments for week ending Wednesday, November 22nd, as prepared by H. Bickerdike, of the Live Stock Exchange, Montreal: Cattle, 1,491; sheep, 1,976.

THE QUIET HOUR.

Sandals of Peace.

"Thou layest Thy hand on the fluttering heart,
And sayest, "Be still!"
The silence and shadow are only a part
Of Thy sweet will;
Thy presence is with me, and where Thou art
I fear no ill."

In these warlike times our thoughts naturally turn to the warfare in which we are all engaged, for if we are not on active service, there is something wrong with our Christianity. No one will question the necessity of the Christian soldier needing the girdle of truth, the breastplate of righteousness, the shield of faith, the sword of the Spirit, and for an helmet the hope of salvation. In theory possibly it may be admitted that the feet should also be shod with "the preparation of the gospel of peace"; but how often do people persist in walking with unshod feet over the rough and stony paths of life. They say, "There is rest for the weary," but they only expect to find it "On the other side of Jordan."

A soldier should be well shod, not only for his own comfort, but that he may be in better condition to fight the enemy. One whose feet are cut and bleeding, whose every step is painful, can hardly be alert, active and vigorous. This rule applies just as truly to the Christian warfare. One who is careful and troubled about many things, who is worried and anxious about the future, or irritable and touchy in the little everyday trials of life, is wasting the strength which ought to be spent on a real battle against evil. Over and over again God has promised the blessing of peace to His servants, not only in the next world, but in this.

"There is no peace," He says, "to the wicked." But all who keep His commandments shall have "great peace," and one of His commandments is "Fear thou not, for I am with thee: be not dismayed, for I am thy God."

WORRY.

Worry is both wrong and foolish. It is wrong because God has expressly forbidden it. Like little children, we are commanded to cast all our care on our Father. It is foolish because worrying never does any good. It only upsets the nervous system of the worrier and makes his friends very uncomfortable. Besides, as we all know, most of a worrier's troubles are imaginary. He fears that things may go wrong, and bears, or, rather, doesn't bear, all the future possible burdens at once. It would be folly to shiver in August because you may be cold in December. We never do that, of course, but don't we often make ourselves miserable beforehand about future troubles: staggering along under their weight long before they reach us? God has faithfully promised "As thy day, so shall thy strength be," but He does not give strength or patience for *to-morrow's* burden. There was a deep lesson in the daily supply of manna in the wilderness. God gives *daily* bread—we may trust Him for that—but He does not allow us to store it up. We must look to Him for it every day.

THE GIFT OF PEACE.

"Thou wilt keep him in perfect peace, whose mind is stayed on Thee, because he trusteth in Thee." Peace is not a thing of outward circumstances. Think of the majestic peace of Christ our Lord, which torture and insult could not shake. Compare it with the unhappy restlessness of Pilate or the despair of Judas. We may all have a share in his peace if we are willing to put our lives unreservedly into His keeping. "My peace I give unto you," He says, and again, "My presence shall go with thee, and I will give thee rest." The trifles which might fret and irritate us are hardly noticed if the soul is filled with God's presence. We shall not worry about the future, for He holds that in His hand. The Present is filled with joy which far exceeds the pain. The Past is all forgiven, and it would be ungrateful to brood over what God has blotted out. The secret of rest, then, is *trust*. Certainly if God cannot order aright the world He has made, we cannot. If we do not trust Him, then want of faith is at the root of the unrest which cripples us so terribly, and want of faith is sin.

Outward circumstances may vary, but inward peace should remain unshaken always. How can we fear when God is near us. Through the wildest storm we may, if we will, hear our Saviour's voice saying, "It is I, be not afraid."

"Trust ye in the Lord forever: for in the Lord Jehovah is everlasting strength."

THE VALUE OF THE GIFT.

Christ said, "My peace I give unto you," and surely no other king could bestow such a valuable gift. It was not only given then. He still gives peace, as He has always done to those who will hold out their hands to receive the gift. Who would not desire earnestly the peace which made the face of the first Christian martyr shine like that of an angel in the face of pain and death? St. Paul meant what he said when warned that bonds and afflictions awaited him. He exclaimed, "None of these things move me, neither count I my life dear unto myself, so that I might finish my course with joy." And these are no solitary instances. The peace of the first Christians, which made them go forward joyfully to meet terrible tortures which we can hardly bear even to read of, amazed their persecutors. They often ascribed it to obstinacy or witchcraft, but they could not understand it. "The secret of the Lord is with them that fear Him."

If we too would enjoy this peace, we must not

only once for all surrender ourselves to God—we must remember every day,—

"Just to leave in His dear hand
Little things,
All we cannot understand,
All that stings,
Just to let Him take the care
Sorely pressing,
Finding all we let Him bear
Changed to blessing."

Our business here is to witness for Christ. If we go about with gloomy faces and doleful forebodings of evil to come, we need never hope to draw others nearer to Him. It is dishonoring to our Master to make the world think that His service does not fill the heart with joy and gladness. HOPE.

Travelling Notes.

VANCOUVER TO SAN FRANCISCO.

Leaving Vancouver, on a glorious October early morning, we ran up the main line of the C. P. R. to Mission Junction (42 miles), then branched off for Seattle and Portland, Oregon. Almost our first halt was for lunch, which was served at a wayside shanty, just at the boundary before we crossed into Washington State. The old woman who served us with sandwiches, coffee, cake, and sudden-death pie, not being able to make the correct change for a "cart-wheel" (American silver dollar), suggested giving the balance in hard-boiled eggs; but as they looked feathered, even on the shell, we declined, with thanks, otherwise might not have lived to tell these little tales of our travels!

If our readers could but see these giant trees in British Columbia and the Western States, some of them 50 and 60 feet in girth! The velvety green moss hangs its banners everywhere between you and the far-off sky, and the plains and mountain-sides are covered with ferns and brakes from three to ten feet high. Accompanying this is the photo of a tree living and growing—with a roadway cut clean



GIANT TREE WITH A ROADWAY CUT THROUGH IT.

through it. The horse and carriage passing beneath its towering height look absurdly small, but it is just a *bona fide* photograph. We reached Seattle about 5 p.m., remained a few hours in that busy and booming railway terminus, and the next morning reached Portland, Oregon. This is one of the leading cities and commercial ports of the country, with a population of 100,000, and having direct connection with San Francisco, Alaska, China, and Japan. We were fortunate in having most delightful weather during our stay there, for we hear it rains so much in the State of Oregon that the Oregonians are called "web-foots." I must add that the people in British Columbia are called "moss-backs"—as it rains there *sometimes* in winter. If the moss would but cling to people as it clings to the branches and trunks of trees, there would certainly be no necessity for clothes. We hear of people "being wrapped in thought" and "wearing a smile"; but they would be tame compared to those robed in moss! Well, these "web-foots" have a beautiful city in Portland, with a profusion of flowers everywhere, and they bloom in the open every month of the year. Roses are as plentiful there now as they are with us in Ontario in June. Having no extreme heat, the roses and buds last weeks and *months* even, and as for the geraniums and fuchsias, they are like trees, and grow half as high as the houses. All plants and deciduous trees grow very big out here; but *not the chickens!* Such dreadfully skinny chicks, which sell at \$1.00 and \$1.50 a pair. In Vancouver, turkeys are 25 cents a pound, but they are our good Ontario turkeys shipped there; so one gets something for one's money; not so, however, with the native chickens. Fresh eggs are usually 50 cents a dozen (often dearer). Think of this, good sister-farmers. If you only could get such

a price for yours; but the hens here say they can't do it any cheaper.

We have wandered off from Portland, but before leaving it entirely must speak of a view from Portland Heights. For variety, grandeur, and beauty, it rivals any view to be obtained in the country. Five unending snow-capped peaks rise a mile above the great forest-covered ranges which form their base, while two glistening rivers and the fair city of Portland stand out in strong relief almost at your feet. Between Portland and San Francisco, on the Southern Pacific Railway, one passes over some of the grandest scenery in America. With two puffing and snorting engines, in eleven miles (from Ashland to Siskijon) we gained an altitude of about 4,000 feet. The wonderful engineering of this road—curving round and round the mountain—opens to one's vision the most exquisite scenery, absolutely bewildering in its gorgeousness. At last San Francisco is reached, and what a city it is!

[TO BE CONTINUED.]

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES,—

Yesterday the sky was leaden gray, the wind sang funeral dirges through the bare and sombre trees; the very grass, now faded and brown, added to the cheerlessness of the aspect, and we mournfully quoted from Thomson's "Seasons":

"Fled is the blasted verdure of the fields;
And, shrunk into their beds, the flowery race
Their sunny robes resign,
And woods, fields, gardens, orchards, all around
The desolated prospect thrills the soul."

But—
"All night the snowflakes sought the earth—the snowflakes
big and white—
They covered up the meadows brown, they bent the bushes
slight!
At morn the sun with wondrous pomp came climbing o'er the
hill,
And lent a thousand beauties to the world so fair and still."

The view that filled our hearts with melancholy yesterday has become to-day a thing of beauty, upon which our eyes linger lovingly, such a depth of magic lies in the first fall of snow. Not only by the schoolboy (who at its advent joyously resurrects his sled) is it hailed with delight; it seems to have effected as great a transformation within us as it has upon the outer world, for gone is all the gloom and repining of yesterday, and new life invades every breast as we merrily join in the children's chorus:

"Fair as a rose is our Lady of the Snows,
As she walks down the valley with the winter in her train,
And the skaters laugh and sing, and the merry sleigh bells
ring,
From the ice upon the river and the snow upon the plain."

The snow brings with it the remembrance of the rapidity with which the years are passing by—so short a time it seems since the Christmas chimes gladdened our ears, and now it is almost time to hear their sweet music again. A solemn thought it is, that all the months which have elapsed since then are part of the irrevocable past, and all our deeds for good or ill are gone beyond recall. Although this thought may make us mournful, we should not permit it to unduly sadden us, but rather give heed to the inspiring words of James Russell Lowell:

"Build on resolve and not upon regret
The structure of thy future. Do not grope
Among the shadows of old sins, but let
Thine own soul's light shine on the path of hope
And dissipate the darkness. Waste no tears
Upon the blotted record of past years,
But turn the page, and smile, oh, smile to see
The fair white pages that remain to thee."

"Build on resolve and not upon regret" are the words of a brave heart, and give advice worthy of being followed by everybody. Why worry and fret that we did not act thus, or thus, at some time past—the time we now waste in useless repining will surely become a source of future grief.

Has the past been bleak and barren? Then let honest endeavor patiently cover it, as the fair snowflakes the dreary landscape, that when the future sun shines forth, our lives, warmed into nobler being by the vivifying beams, shall, like the earth around us, bud and bloom into greater beauty and usefulness. Let us but have courage to *resolve*, and the strength to carry out our good resolutions will surely be granted us. Courage is an attribute all should strive to possess; that is, real courage, for much that bears the name is spurious coin; but we shall have a talk on this subject some other time.

It may be rather early for Christmas greetings, my dear boys and girls, but the knell of the last of the nineties will have sounded before our next chat, so here and now let me wish you all a joyous Christmaside.

Your loving, UNCLE TOM.

Recipes.

STALE-BREAD CAKE.

Two quarts of stale bread, soaked in water, and squeezed dry. Put 3 parts of bread to 1 of flour; 3 dessert spoonfuls of baking powder, 1 lb. of currants, 2 lbs. raisins, 2 cups of sweet milk, 2 cups treacle (dark kind), 2 cups (rather large) of sugar, 2 cups of dripping, or lard and butter mixed: spices to taste, and candied peel, if liked.

SCRAPPLE—A NICE BREAKFAST DISH.

Boil any kind of meat until tender; separate from bones, and chop fine. Season with pepper and sage (if desired), and salt the liquor in which the meat was boiled. Put the chopped meat back into the liquor, and while boiling, stir in meal until about the consistency of mush. Pour into a crock, and when cold, slice and fry.

"The Absent-minded Beggar."

RUDYARD KIPLING'S HANDSOME CONTRIBUTION IN VERSE TO THE FUND FOR FAMILIES AND DEPENDENTS OF SOLDIERS ON SERVICE.

The accompanying poem is Rudyard Kipling's contribution to a fund for the wives and children of the British army recruits sent to South Africa. He sold it to the London Daily Mail for \$1,250; of all the proceeds Mr. Kipling receives nothing.

I. When you've shouted Rule Britannia! when you've sung God Save the Queen, When you've finished killing Kruger with your mouth, Will you kindly drop a shilling in my little tambourine...

Chorus: Duke's son—cook's son—son of a hundred kings— Fifty thousand horse and foot going to Table Bay. Each of 'em doing his country's work (and who's to look after their things?)

II. There are girls he married secret, asking no permission to, For he knew he wouldn't get it if he did. There is gas, and coals and vittles, and the house rent falling due...

Chorus: Cook's son—Duke's son—son of a belted Earl— Son of a Lambeth publican—it's all the same to-day; Each of 'em doing his country's work (and who's to look after the girl?)

III. There are families by thousands far too proud to beg or speak, And they'll put their sticks and bedding in the spout; And they'll live on half o' nothing paid 'em punctual once a week...

Chorus: Duke's job—cook's job—gardener—baronet—groom— Mews or palace or paper shop—there's someone gone away! Each of 'em doing his country's work (and who's to look after the room?)

IV. Let us manage so as later we can look him in the face, And tell him—what he'd very much prefer— That while he saved the Empire his employer saved his place, And his mates (that's you and me) looked out for her...

Chorus: Cook's home—Duke's home—home of a millionaire— (Fifty thousand horse and foot going to Table Bay!) Each of 'em doing his country's work (and what have you to spare?)

Two Prudent Girls.

The following account of how two girls went to study in one of our large cities is interesting, and may prove useful to any other girls contemplating the same thing. They had just \$25 a month for rent, food, laundry, and sundries. Their college fees were paid for them. They took a nice large room at \$10 per month. To use their own words: Our first purchase was a small gas stove, with two places for cooking. This, with the tubing, cost us \$1.25. A combination steamer, that would cook half a dozen things at once, small tea and coffee pot cost another \$1. We had brought dishes from home. Now, for the eight months we were in Toronto, our table cost us about \$2 per week, and we did not starve either.

This was our usual list, varied with fruits and vegetables, according to the season:

Table listing grocery items and their prices: Coffee \$0.17, Tea 10, Butter 20, Cereals 10, Condensed milk 10, Sugar 5, Flour 10, Potatoes 10, Salt and pepper 15, Vegetables 15, Eggs 20, Fresh meat 28, Fresh milk 28, Total \$1.68.

We used three loaves of bread a week, which cost us 12 cents; this left us 10 cents for fruit.

Our breakfast consisted of a good cup of coffee, a dish of oatmeal or some other breakfast food, with milk, bread and butter, a banana, apple, or whatever fruit was in season. Lunch was generally made from whatever was left from the dinner of the evening before.

At dinner we always had soup, five cents' worth of soup meat being the basis.

Monday we had beef soup, boiled beef, potatoes and one other vegetable, with rice, and a cup of tea. Tuesday's dinner, the soup left over from Mon-

day, with a few vegetables added; hash made from the boiled beef, macaroni and cheese, with rice pudding, bread and butter, and tea.

Wednesday we had for dinner bean soup, boiled beans, stewed tomatoes, and lettuce, with sliced bananas and milk.

Thursday we had potato soup, lamb stew and dumplings, mashed potatoes, stewed tomatoes, and some kind of dried fruit.

Friday we always had a pick-up dinner, made from the odds and ends left over. If no meat was on hand, we had ham and eggs, with bread pudding. Saturday we generally had some kind of hot roast, so as to have cold meat for Sunday.

Sunday we had noodle soup. We made the noodles, and one egg was all that was necessary, with a quart of milk to cook them in. This dish, with cold meat, cup custard, bread and butter, and a cup of tea, was all we wanted.

To be sure, we varied the meals each week, and once in a while we had a nice porterhouse steak. We kept within the \$2 limit, and had all we wanted of good wholesome food. One pound of coffee would last us two weeks, and we paid 17 cents a pound for Java and Mocha. Ten cents' worth of tea would last us two weeks; ten cents' worth of breakfast foods the same; a can of condensed milk would last us ten days, and five cents' worth of salt and pepper lasted us three months. The weeks we did not need to get these things, we bought rice, beans, codfish, dried beef, etc.

Dried beef, cooked in milk and thickened with a little flour, makes a nice dish; also, codfish prepared the same way. We ate no pies, cakes, or hot bread, and very little fried food, hence we had no touch of indigestion.

Our laundry cost us \$1 a month. We had it done every two weeks, and kept as neat and clean as anyone could wish.

At the end of the term we had lived within our income, and had \$20 left. The next term will find us in our places, ready to take up the work again.



THEY ALL WATCH FOR THE "FARMER'S ADVOCATE."

The New Subscriber.

The taste for reading often develops early, but one is not always sure that the youngsters will choose the right kind. Now, just look at Master Tommy's round-eyed interest. He's got the right thing at all events—and they all watch for the FARMER'S ADVOCATE, bless 'em.

Puzzles.

[The following prizes are offered every quarter, beginning with months of April, July and October: For answers to puzzles during each quarter—1st prize, \$1.50; 2nd, \$1.00; 3rd, 75c. For original puzzles—1st, \$1.00; 2nd, 75c.; 3rd, 50c.]

This column is open to all who comply with the following rules: Puzzles must be original—that is, must not be copied from other papers; they must be written on one side only of paper, and sender's name signed to each puzzle; answers must accompany all original puzzles (preferably on separate paper). It is not necessary to write out puzzles to which you send answers: the number of puzzle and date of issue is sufficient. Partial answers will receive credit. Work intended for first issue of any month should reach Pakenham not later than the 15th of the month previous; that for second issue not later than the 5th of that month. Leave envelope open, mark "Printer's Copy" in one corner, and letter will come for one cent. Address all work to Miss Ada Armand, Pakenham Ont.

I. BEHEADINGS.

Can anyone tell us Total friend Dick's gone, 'Tis not very long since Second he shone; With his puzzles bright and his puzzles gay; Why? Oh! why, did he go away?

We know that science you do not lack, Come back, Dick, then do come back, And work again with your old shipmates, 'Till you find it is too late. "ARRY 'AWKINS."

2. NUMERICAL.

My 18, 2, 9, 13, 4, is short, My 17, 20, 16, 10, 7, 3, please do not take, My 12, 15, 8, 19, 21, has a warm coat.

My 14, 11, 1, 1, 6, we do to the horse. My whole is good advice for ADVOCATE readers. "ARRY 'AWKINS."

3—NUMERICAL. Something we would all like to be; consists of twenty letters.

- 8, 7, 16, is a wild animal. 2, 9, 11, 17, is very annoying in dry weather. 1, 6, 20, is a melody. 2, 10, 7, is a loud sound. 12, 16, 4, 18, is an exclamation that commands quiet. 3, 19, 5, 15, is a very small quantity. 14, 16, 13, 5, is a song in two parts. L. B. FORCE.

4—DOUBLE ACROSTIC. (Words of the same number of letters.)

- 1—To make a motion as with wings. 2—A girl's name. 3—To assert. 4—A corner. 5—A friend. 6—A thought. 7—The fore part of the leg. Primals and finals spell a famous author. L. B. FORCE.

5—DROP-LETTER PUZZLE.

- 1—l-e-f-n-e-n. 2—P-e-e-m-r-t-b-r. 3—-a-e-o-o-y. 4—-a-a-. 5—-o-a-h-s-u-g. 6—P-o-i. These are important places in South Africa—two cities, two countries, and two cities. The six asterisks will be found to spell the name of a person on whom rests the responsibility of the war. F. L. S.

6—NUMERICAL.

- An epigram of 41 letters, defines a millionaire. 21, 41, 11, 4, 29, 2, 23, is abashed. 24, 9, 40, 19, 31, 15, 31, is state of the atmosphere. 39, 17, 22, 36, 12, 37, is a girl's name, spelling backward and forward the same. 5, 27, 7, 26, 38, is a hard substance. 3, 35, 20, 14, is meat and vegetables chopped up and mixed. 10, 1, 25, 33, is which. 6, 30, 8, 18, is part of the day. 13, 32, 16, 28, is tidings. F. L. S.

7—CHARADE.

Strangers One when their eyes meet, If on the Two that's passing down street, My precious Three was in the way When my grand Whole came yesterday. ROLLY.

8—DOUBLE ACROSTIC.

In "kingfishers" on the sea, In "robin on toast" for tea, In "the cat-bird" has a pea, In "sky rockets," oh, gee, How they fliz for you and me.

In "soldiers" who halt, In "bacon" full of salt, In "Canucks," perhaps from Galt, Without a fault.

In "horses" that bolt, In "Dave's coll," a doll, In "poultry" that moult, Belonging to Sam Holl.

A well-known author, His latest book, 'Tis what you'll find, If long enough you look. "ARRY 'AWKINS."

9—DOUBLE ACROSTIC.

(1) against; (2) to guide; (3) an absurd act; (4) true; (5) used by painters; (6) to decorate; (7) a Canadian city; (8) a fairy; (9) clean; (10) heard on the farm; (11) a kind of lock; (12) an English island; (13) a river in Asia; (14) a girl's name; (15) hearty. Primals and finals name a famous poet and one of his finest poems. "ARRY 'AWKINS."

10—A PUZZLING QUESTION.

If 4 cows are equal in value to as many sheep as the number of cows that can be exchanged for 100 sheep, how many sheep must be sold to get money enough to buy one cow? F. L. S.

Answers to Nov. 6th Puzzles.

- 1—Nightingale. 2—Turn paper upside down when subtracting. 3—Sedan-lane, star-pat, sloop-pool, sugar-gaur, cedar-dare, ling-gin, merlin-liner, sole-Leo. 4—Easing, dago, undergo, crabbed, Arabic, tear, into, out-crop, niches. Finals and primals: good crops, education. 5—The white man's burden. 6—Air, ere, e'er, heir.

- 7—A s i n i n e a N t e n n a s l A v e r y s w e l t e r s t r a y e r i d o l i z e i m a g i n e 8—Shaking, taking, making, liking, cooking, looking, jerking, thinking, tacking.

- 9—Vigil—lance, vigilance. 10—(a) Apt to promise, apt to forget. (b) 'Tis money makes the mare go. (c) Child's pig, but father's bacon. (d) Two of a trade seldom agree. (e) The absent are always at fault. (f) Every bean has its black.

- 11—Israel Zangwill, May Agnes Fleming, Wendell Phillips, Susanna Blamire, Richard Carvel, Robert Browning. 12—Siren, reins, resin, rinse.

- 13—m a s t o i d m a s t i f f p o r t e n t c u r r e n t c o n s o r t m a r k e t s m a n u a l s

SOLVERS TO NOV. 6TH PUZZLES.

M. R. G., "ARRY 'AWKINS," Maggie Kidd, "Rolly."

ADDITIONAL SOLVERS TO OCT. 20TH PUZZLES.

"Pansy" (also for Oct. 2nd), J. F. L., "Rolly."

Poetical city maiden, rustivating for a while— "Can you not show me some lovely sylvan dell, the quiet haunt of nature, or lead me to some wild Arcadian pastures?"

Country child: "We ain't got none of them things round here, ma'am. We had a suicide last week, but he's done been buried now."

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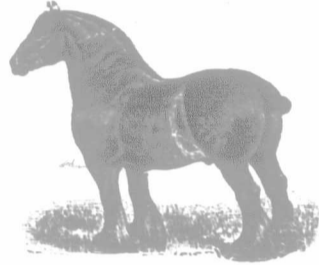
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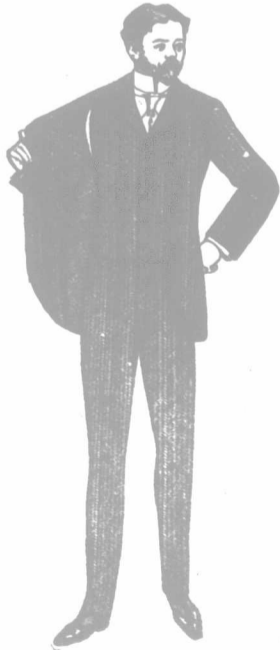
Will sell the fine young dark red Shorthorn Bull, Sharkey = 30615 =; calved March 15th, 1899; got by Mima's Prince = 24970 =; dam Maggie Bell = 30991 =; bred by John Trestant, Strathburn, Ontario.

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NOTICES.

Why It is Liked.—JAS. SPEAKMAN, Penhold, Oct. 31st, '99: "I find your paper exceedingly interesting and useful."

All Like It.—J. E. RUSSELL, Madford, Man., Nov. 15th, '99: "I would not like to be without the FARMER'S ADVOCATE."

Christmas Excursions.—The Canadian Pacific's Annual Excursions are this year to be run from December 4th to 31st, and in order to accommodate those who cannot get away till after the holidays, they have arranged that the tickets purchased on the 31st will be good on the going journey until January 10th. The rate will be \$40.00 to Montreal and all points west thereof in Quebec and Ontario, with correspondingly reduced rates to points east. All indications point to a larger number of excursionists than in any previous year, and the Company are making special arrangements for the business. The new first-class coaches which were running on the "Imperial Limited" during the summer are to be put in service for Manitoba excursionists, while for those who desire sleeping accommodation, twenty of their new tourist sleeping cars are being brought from the east for the purpose of making a daily service to Montreal and Toronto.

The Buenos Ayres Standard of 5th October contains a paragraph which will not be at all pleasing to British exporters of cattle. It says: "Advices from Montevideo say that in future all fine stock (cattle) imported in to the B. O. will have to be submitted to the tuberculin test. This will be unpleasant news for Argentine importers, who have hitherto had the B. O. as a market for the animals which have failed to pass the test here."

DAVID REA'S SHORTHORN SALE.

The dispersion sale of the Shorthorn cattle, and other stock and effects, of Mr. David Rea, at Fergus, Ont., November 22nd, brought together a large crowd of people, who were treated with the characteristic hospitality of the vendor, who is very popular where he is best known, and general regret is felt by his neighbors that he is giving up farming. The Shorthorns were readily taken at fair prices, and were mostly bought by farmers and breeders in the surrounding counties. Following are the names of purchasers, their addresses, and the prices:—

Cows and Heifers.

Oxford Rose 9th, D. McGregor, Mimosa, \$198.
Oxford Rose 7th, R. Curtis, Hereward, \$100.
Oxford Rose 8th, Alf. Farrow, Speedside, \$100.
Samantha 2nd, Jas. Alexander, Belwood, \$105.
Oxford Rose of Fergus, W. L. Gordon, Elora, \$98.
Samantha 3rd, Alex. Park, Hereward, \$100.
Samantha 4th, 1 year, Henry Arkell, Arkell, \$45.
Jessamine 26th, Robt. Talbot, Everton, \$100.
Jessamine 27th, Jas. Oakes, Oustic, \$98.
Jessamine 28th, 1 year, Jas. McLennan, Orton, \$86.
Oxford Rose 10th, W. Tookey, Mimosa, \$75.
Oxford Rose 12th, Allan Ramsay, Eden Mills, \$74.
Hebe 3rd, C. McMillan, Erin, \$90.
Oxford Rose 13th, calf, Henry Arkell, \$71.
Jessamine 29th, Henry Arkell, \$50.

Bulls.

Oxford Chief 31460, W. D. McLennan, Harriston, \$90.
Oxford Chief 2nd 31461, Thos. Manderson, Harriston, \$75.
Oxford Chief 3rd 31462, T. Mainland, \$55.
Oxford Chief 4th 31463, William Scaife, Hereward, \$83.
Jessamine Chief 2nd 31458, Jas. Turner, Orton, \$90.
Samantha's Hero 31464, Ed. Doughty, Ermosa, \$50.
Wellington Chief 31466, Alf. Townsend, Belwood, \$74.
Wellington Boy 31465, John Marshall, Fergus, \$49.
Jessamine's Chief 3rd 31459, C. McInnes, Yeovil, \$50.
Jessamine's Chief 31457, Robt. Talbot, Everton, \$78.

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We carry one of the best selected and largest stocks of teas to be found anywhere, and if after buying tea from us you don't feel that you have saved from 15c. to 20c. a pound, you are invited to return it to us, at our expense, and get your money back.

This seems about as fair as an offer can be.

We have just unloaded a carload of Japan tea, containing 435 chests and caddies, and we have a carload of Empress tea due to arrive in about a month.

We buy our teas direct from the growers, and sell to consumers at prices just as low as other grocers pay when they buy.

Our Empress Pure Indian tea, if it could be got by other dealers, would be considered by them good value to sell at 60c. per pound.

When you buy it from us at 35c. per pound, you are getting value that cannot be got anywhere else.

The Japan tea that we sell you at 35c. per pound would cost 50c. in other stores.

When you buy 25c. Japan or Black tea from us, you get tea that would cost you 40c. elsewhere.

If you buy a full chest or 50 pounds of tea at a time, we will allow you 2c. per pound off, except on Empress tea and Japan siftings.

For \$4 cash with order, we will deliver (express prepaid) 10 pounds of Empress tea, or 10 pounds of 35c. Japan, at any railway station in Manitoba; for \$4.25 we will deliver at any railway station in Assiniboia or Saskatchewan, or for \$4.50 we will deliver it at any railway station in Alberta or in British Columbia as far west as Revelstoke.

The amount you can save by buying your winter's supply of tea from us is worth considering.

Send your name and address for our fall grocery catalogue.

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"Pasture" single treatment Blackleg Vaccine ready for use (no set of instruments required). No. 1 (10 head), \$1.50; No. 2 (20 head), \$2.50; No. 3 (50 head), \$6. Easily applied. No experience necessary.
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BULLS AT HEAD OF HERD:

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A carload of Bulls suitable for Northwest Territories for sale. Orders booked for spring pigs. Berkshires, by the great boar, King Clere, and out of such sows as Harmony and Gold Drop. Yorkshires, by the sweepstakes boar, Yorkshire Bill, and out of such sows as Stairira, Jubilee Queen, and Markham Maid.
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ADDRESS The WILLIAM WELD CO., Limited, Winnipeg, Man.

MR. W. D. FLATT'S COMING SALE OF IMPORTED AND CANADIAN-BRED SHORTHORNS.

Having seen the catalogue and the cattle listed for the great sale of Shorthorns to be held at Hamilton, Ont., December 20th, we are confident it is safe to say that no such collection of cattle has been offered at public sale in Canada in the last twenty years. Mr. Flatt's ambition, evidently, has been to excel in this regard, and to this end he has spared no expense in procuring the best that could be bought in Great Britain; 43 animals imported this year go into this sale, besides 17 choice Canadian-bred animals of high-class quality and breeding.

Mr. Flatt has, we think, been unduly modest in seeking to leave the impression that the cattle are in only very moderate condition. Those who have seen them agree that the animals are, as a rule, in the very best possible condition from a breeder's standpoint, being robust looking, well covered with natural flesh and hair, and looking the pictures of health, thrift and usefulness, while a large proportion of them in symmetry of form, style, and quality, combine all the properties necessary to make high-class show animals, fit to compete with the best in any country. In breeding they are up to the standard of the most approved type, the great majority being bred in Scotland, in herds of recognized merit, and all having the benefit of the blood of the most noted herds in Britain, as an analysis of their pedigrees will abundantly attest.

A detailed reference to all the individual animals in the sale would be impossible in the space at our disposal, but among a long list of good things special mention may be made of a few, and turning first to the bulls to be sold we find a prominent figure in the handsome and level roan two-year-old, Precious Stone (illustrated in this issue), bred by Mr. Gordon, of Newton, Aberdeenshire, and sired by the Cruickshank bull, Touchstone. He is thus half-brother to Corner Stone, also bred by Mr. Gordon, winner of first and championship prizes at the Highland Society's Show, 1899, defeating the Royal winner, Count Beauty, and the Queen's heifer, Cicely, which was champion at the Royal the same year. It is said that Mr. Gordon has refused \$5,000 for Corner Stone, and good judges have given it as their opinion that Precious Stone is a better bull than his brother the champion was as a two-year-old. He is certainly a bull of very fine presence and promise, having very straight lines, level quarters, strong loins, and a grand quality of flesh and hair. He is certain to find favor with discriminating breeders, and has in him the qualities of a winner.

Closely following him, if not his equal, is the strong, low-set, level, and well-proportioned Duthie-bred yearling, Master of the Clan, a roan by the Marr-bred Chief of the Clan, by Captain of the Guard, and selected by Mr. Duthie for service in his herd, a sufficient indication of his excellence. He is of the favorite Missie family, which produced Marengo, the Royal champion of 1898, and many other famous prizewinners, and is choke-full of quality from stem to stern; just the sort for a superior stock bull and a show animal in combination.

Proud Crescendo, a rich red bull, just 14 months old on the day of sale, is one that is sure to find favor with good judges, and his everything in his make-up that is necessary to make a successful show bull, while his breeding is rich in the blood of the best, being sired by Crescendo, an extra well bred Cruickshank bull by Prince of Fashion, and his dam by Proud Duke, by the Cruickshank Nonpareil bull, Norseman, bred by Mr. Duthie, his dam being the daughter of a William of Orange cow. He is a perfectly level, bright, and true young bull, with handsome head and crest, long, straight quarters, and ideal handling qualities. There is sure to be keen competition for his possession, and we tender our congratulations in advance to the one lucky enough to bid last for him.

Among the other imported bull calves is Prince Louis, a roan of March last, of the favorite Lancaster tribe; Quarantine King, a son of the Duthie-bred Wrestler by William of Orange, and of the fine cow, King's Magic 4th, by a son of the Cruickshank sire, Scottish Archer; Sittyton Style, of the Cruickshank Secret family, by another son of Scottish Archer, out of a Missie cow by William of Orange; and Royal Archer, a nine months son of Lady Lincoln 6th, by Belted Knight by Clear the Way, a grandson of the great Champion of England. The Canadian-bred bulls to be sold are of equally good breeding, of exceptional individual merit, and good enough to head first-class herds, coming from such as the Missie, Duchess of Gloster, Mina, Claret, and Cicely tribes—all of which are standard sorts.

Prominent among the females is the massive and shapely roan cow, King's Magic 4th, in her four-year-old form, a daughter of Lord Harry, bred by Mr. Duthie, and sired by Scottish Archer, purchased when a yearling by Mr. Willis, of Bapton Manor, for 300 guineas, and now one of the chief stock bulls at Collynie. King's Magic 4th is a show cow, broad, deep, smooth, and well balanced, and shows a shapely udder, which indicates the heavy milker she is, and which is attested by the lusty roan bull calf she is nursing, a son of Wrestler, bred by Duthie, and sired by William of Orange, which will prove a prize for somebody.

Jenny Lind, a roan two-year-old heifer by Matadore, by the Duthie bull, Prince of Fashion, by Scottish Archer, and out of Missie by Nairn, by the Cruickshank Spicy bull, Dauntless, is one of the most excellent of the lot; and Craibstone Baroness, another roan two-year-old by Craibstone, a son of the noted William of Orange, is of the Miss Farnsten family, which produced the Royal winner, Challenge Cup, Proud Archer, and Lady Douglas, imported by Mr. Flatt, and sold at a long price. Linda, a Cruickshank Lustre, calved in March, 1897, is a handsome and stylish red and little white heifer of great promise; sired by Lord Douglas, a Cruickshank bull of note, and sire of Lady Douglas, above mentioned, Linda was a winner at the Scottish shows in 1898, having gained second at the Royal Northern, and first at Insh and Tyvie. Two of the Inverquhomery Angustas, bred by James Bruce, a red and a roan, calved in February and April, 1898, and sired by Waverley, a Highland Society winner, are very excellent representatives of that fine family, the dam of one being by the Duthie-bred Royal Robin by Roan Robin; and of the other by the

The Farmer's Advocate CHRISTMAS NUMBER.

THE 1899 Christmas number of the FARMER'S ADVOCATE will be more attractive in appearance and more valuable and interesting in contents than any previous issue, containing about half a hundred beautiful engravings; and amongst its wealth of contributions are the following:

"The Agricultural Situation and Outlook for the Dominion."

Contributed by the HON. SYDNEY FISHER, Minister of Agriculture in the Canadian Government.

"Best Results on a Prairie Farm."

Written by one of the very foremost authorities on the subject, based on personal experience and wide observation as Superintendent of the Indian Head Experimental Farm, Northwest Territories. ANGUS MACKAY.

"Pioneer Agriculture in the Red River Valley."

A graphic historical sketch of the early days in Manitoba and the Northwest, going back to about 1890, replete with interesting reminiscences of Hudson's Bay Co. times, and indicating the path of progress in the past. By J. J. GUNN.

"Agricultural Education in Manitoba."

By H. S. McLEAN, Assistant Principal, Normal School, Winnipeg.

"Agriculture in the Maritime Provinces."

By SENATOR DONALD FERGUSON, Prince Edward Island.

"Log Cabin Times."

This will be a vivid recalling to mind of days and nights in the "slashing," when the "logging bee" was in its glory, and the wolf howled outside to the music of the roaring back-log fire within, by REV. W. A. MACKAY, B. A., D. D., author of "The Pioneers of Zorra."

"The Twentieth Century Farmer."

By PROF. JAS. W. ROBERTSON, Canada's Progressive and Aggressive Agricultural Commissioner.

"The Beginning of a Cure."

A Christmas-eve sketch, by the gifted Canadian authoress, JEAN BLEWETT, whose poetic and prose writings touch with a delicate hand the chords of humor and pathos.

"Woman's Influence on Farm Life."

By MRS. AGNES SPENCER, "Dorset Farm," Ontario Co., Ont., author of "The Log Cabin's Lament."

"Canada at the Paris Exposition."

One of the most experienced of CANADIAN JOURNALISTS will picture what our great Dominion will present before the world's critical eyes at the World's Fair of 1900 in the French capital.

"The Future of British Agriculture."

A masterly review is given of the present condition of British agriculture. Two great menaces confront the British farmer and also two paths of deliverance, both of which are described by MR. ARCHIBALD McNEILAGE, one of the ablest and foremost of British agricultural editors.

"British Shorthorn Sales of 1899."

By MR. JONAS WEBB, of John Thornton & Co., London, Eng.

"Outlook for the British Sheep Industry."

By MR. ALFRED MANSELL, of A. E. Mansell & Co.

"Agricultural Education in the 20th Century."

By CHARLES C. JAMES, M. A., Deputy Minister of Agriculture for Ontario, formerly Professor of Chemistry at the Ontario Agricultural College, and author of the text-book "Agriculture."

"A Bright Chapter for Stockmen."

A seasonable article of special interest to stockmen, by the head of the great Iowa Experiment Station and Agricultural College, PROF. C. F. CURTISS.

And there will be many other features just as good.

The beautiful and valuable number, to be issued on December 20th, goes free to every new subscriber for 1900. To non-subscribers the price is 50 cents. Any present subscriber sending us the name of one new subscriber will receive one extra copy of the Christmas number as a premium. Nothing more appropriate to send as a Christmas greeting to a friend or relative.

Every issue for 1900 of the FARMER'S ADVOCATE will be full of helpful, practical and timely matter. It is the best agricultural paper on earth for the Canadian farmer, and only \$1.00 per year. Send for a free sample copy.

The WILLIAM WELD CO., Ltd.,
WINNIPEG, MAN.

noted Cap-a-pie by Clear the Way, out of Augusta 11th by Gateway. Nonpareil 34th, a roan yearling, bred by Mr. Campbell, Deystone, is a capital scion of that excellent Cruickshank family, by Kintore Hero by Emancipator, and her dam by Clan Alpine. Clipper 2nd, by Christmas Cup, is a handsome and well-formed representative of the favorite Sittyton tribe of that name. Avarice is a good roan two-year-old heifer of the Avere tribe, that has done so well in the north of Scotland. One of the most desirable things in the sale is the nine-months Imp. Belladonna, by the Cruickshank bull, Crescendo, and out of Bella 3rd, by Martin, by the famous Star of Morning, who was by Pride of Morning, the sire of Butterscotch, dam of Corner Stone, the Highland Society breed champion of the present year. It is believed that if this heifer goes into good hands she will make a champion.

Among the Canadian-bred females are a number of really excellent young cows and heifers of such fine families as the Missie, Duchess of Gloster, Crimson Flower, Village Girl, and other useful sorts, of which space forbids further mention.

Mr. Flatt has been exceedingly generous in the selections from his herd which he allows to go into the sale, and has put nothing in the list that is below par. He hopes for, and confidently expects, a large gathering of farmers and breeders at this sale, and those who know him best will need no assurance that he will fairly represent everything, use his patrons well, and conduct the sale on strictly honorable principles.

THE CARGILL SHORTHORNS.

The largest and one of the very best herds of imported Scotch-bred Shorthorns in America at the present time is that of Messrs. H. Cargill & Son, of Cargill, Ont., whose importations of over 75 animals during the present year, in addition to those of their last year's importation remaining, gives them a herd of about 100 imported cattle, besides some 20 head of other high-class animals bred directly from imported Scotch-bred sires and dams of first-class families. This firm has special facilities for securing the most desirable class of cattle, Mr. Cargill, Jr., having visited the Old Country last year, making valuable selections in person, and was fortunate in negotiating an arrangement with that excellent judge and reliable breeder, Mr. S. Campbell, of Kinellar, Aberdeenshire, to select, purchase, and ship in successive consignments, the best class of Shorthorns available, with the result that up to the present date 76 choice animals have been landed in good condition this year, under the charge of careful and competent herdsmen. The importations of this year include a selection of 20 two-year-old heifers in calf, from the noted herds of Mr. Duthie, of Collynie, and Mr. Marr, of Upper Mill, a privilege which has rarely, if ever, been granted to any other buyer. These are an exceedingly uniform lot of typical Aberdeenshire Shorthorns, but a selection of some 30 heifers of the same age and of similar breeding, from other well-known Scotch herds, are quite as good individuals, and are richly bred in the blood of the leading herds, all being of the low-set, thick-fleshed, early-maturing sort at present so much in demand. The purpose is to retain the 20 heifers first mentioned in the herd, and these are not being offered for sale; but the balance of the herd is open for sale, and parties requiring choicely-bred foundation stock, or fresh blood to add to their herds, will find in the Cargill cattle just what they want, either among the imported animals or those bred on the farm from imported stock.

There are a number of excellent young bulls, imported and home-bred, now on hand which are good enough to head first-class herds. Among the former is Count Amaranth, a rich roan yearling, calved in February, 1898, bred by Mr. Duthie, and sired by Count Arthur, a Cruickshank Victoria bull by Count Lavender. His dam is by Master of the Realm, a Sittyton Brawith Bud bull by Commodore, a grandson of the great Princess Royal by Champion of England, and is of the same family as the noted Field Marshal. Count Amaranth was bought from Mr. Duthie by Mr. Campbell when a calf for 100 guineas, and used in his herd the past season. He is a model Shorthorn bull, straight in his lines, smoothly-fleshed, and showing strong character.

The roan three-year-old, Orange Duke, bred by the Duke of Richmond and Gordon, was sired by the richly-bred Missie bull, Musgrave, who was by the Cruickshank Clipper bull, Criterion. His dam was by Strongbow, used for three seasons at Sittyton, who was out of a daughter of the great Champion of England. This bull has developed into a grand, thick-fleshed animal, full of quality, true in his lines and long and level in his quarters, and is proving a capital sire.

Beauchamp, a roan yearling, bred by Geo. Bruce, of Heatherwick, is an excellent roan bull, sired by Prince of Archers, by Scottish Archer, and his dam by the Nonpareil bull, Norseman. He is a very straight, well-proportioned bull, with well-sprung ribs, and full of quality.

Count Sarcasm is another excellent roan yearling, bred by Mr. Duthie, and sired by Count Arthur, a Cruickshank Victoria, and his dam is a Sittyton Secret of the best of breeding.

Prince Cruickshank, a roan yearling, bred by Mr. John Marr, is a straight, smooth, well-formed bull of capital quality; sired by Emperor, by the Cruickshank Coldstream, and out of Diamond 11th by the Clipper bull, Stand-ard Bearer. The dam of Prince Cruickshank was by the Mina bull, Master of the Mint, by Masterpiece by Field Marshal.

Prince William is a straight, stylish red yearling, by Reveller by Allan Gwynne, by Star of the Morning, one of the best of modern sires. The sire of his dam, Red Prince, is an excellently-bred Lancaster by the Missie bull, Match Him.

A number of nice bull calves of equally good breeding, imported and home-bred, make up as fine a lot of young bulls as can be found anywhere. The Cargill herd has taken the leading place on this continent, and it is the intention of the owners to keep it in that position by breeding only from first-class individuals of the best blood. They are first-class men, who treat their patrons right, deal fairly, represent everything as it is, are satisfied with reasonable profits, and aim to give good value to those who favor them with their trade and their confidence.

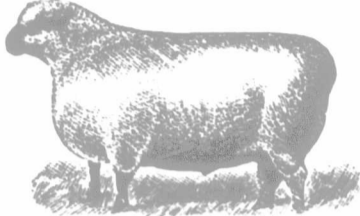
CANCER CURED WITHOUT KNIFE OR PLASTER. FULL PARTICULARS FREE. -OM-
F. STOTT & JURY, Bowmanville, Ont.

J. A. S. MACMILLAN
-IMPORTER OF-

Clydesdales, Shires, Hackneys.

STALLIONS:

Has a few choice ones for sale. Also Pure-bred



SHROPSHIRE SHEEP,
Rams and Ewes, from the most fashionable imported blood. Inspection invited. For full particulars,
Apply: **Box 483, Brandon, Manitoba.**

YOUNG BULLS
of Missie, Mina, Rosebud, Strathallan, Wimple, and other choice Scotch breeding. Also, females at moderate prices.

W. S. LISTER,
MIDDLECHURCH, MAN.
Marchmont Stock Farm, near Winnipeg, Man.

SHORTHORNS
STOCK FOR SALE. WRITE OR CALL ON

J. H. KINNEAR, SOURIS, MAN.
D. FRASER & SONS,
EMERSON, MAN..

Breeders and importers of Durham Cattle, Shropshire and Southdown Sheep, and Pure-bred Poland-China Pigs a specialty. Young stock for sale. 9-y-m

WILLOWDALE STOCK FARM.

SHORTHORN CATTLE
CLYDESDALE HORSES

A number of young Clydesdale Mares and Fillies. Also a few choice young Bulls, sired by Caithness -22065-. Address,

PURVES THOMSON,
PILOT MOUND, MAN.

THORNDALE STOCK FARM,
MANITOU.

JOHN S. ROBSON, PROP.

30 Shorthorn Bulls and 30 Heifers
FOR SALE.

Write for particulars. -m

Shorthorn Cows and Heifers for Sale
Of good breeding. Prices right.

GEORGE RANKIN, HAMIOTA, MAN.
"Melrose Stock Farm."



Young bulls and heifers for sale from Topman =17847-, the winner of the sweepstakes and silver medal at the Winnipeg Industrial in '97 and '99; also Toronto and London in '99. My stock also won first for Manitoba herd. A good chance to get a splendid young bull to head a herd. Prices right. Write or call on

JOHN G. BARRON,
Box 53, Carberry, Manitoba.



POPLAR GROVE
HEREFORDS
THE LARGEST HERD IN CANADA.

STOCK OF ALL AGES FOR SALE.

J. E. MARPLES,
DELEAU, MAN.
Pipstony Branch, P.R.

GOSSIP.

Walter James, Rosser, recently sold to C. H. Stephenson, of McGregor, the Shorthorn bull, Rosser Lad, by Indian Warrior.

ARCHY MCINTYRE, Sidney, Man., Nov. 7th, '99: "We enjoy your valuable paper, the ADVOCATE, very much."

ROBERT EDMOND, Treherne, Man., Nov. 9th, '99: "I would not know how to get along without your paper."

T. LANGSFORD, Agassiz, B. C., Nov. 13th, '99: "The ADVOCATE contains many items worthy of praise and practice."

DANIEL HAWE, Treherne, Man., Nov. 13th, '99: "I like the ADVOCATE well."

John Oughton, Middlechurch, Man., reports sale of all his Shropshire ram lambs, also five shearling rams, to Thos. Harkness, Fletwode, Assa. As per his advertisement in Nov. 6th, he offers young pigs—Berkshires, Yorkshires, Durocs, and Poland-Chinas.

Hon. M. H. Cochrane, of "Hillhurst Farm," P. Q., has received advice of the arrival on Nov. 18th of an importation of 18 Scotch Shorthorns at St. John, N. B. Among them is the dark roan bull calf, Joy of Morning, from Collynie; highest-priced bull imported this year to the United States or Canada. All the rest are heifers, yearlings and calves, selected at Uppermill, Cairnbrogie, Shethin, Waterton and Cromley Bank, being the pick of these well-known herds.

Wm. Stothers, Graburn, Assa., an illustration of whose Shorthorn bull, Prince Lincoln =23368-, appears elsewhere in this issue, is one of the successful ranchers in the district adjacent to Maple Creek. Mr. Stothers has, besides his homestead, 2 1/2 sections of lease land, and his herd numbers about 300 head of good grades. He sells about 50 head per year. As the nucleus of a Shorthorn herd, Mr. Stothers has now eight head of females, of which Lydia Pinkham =24115-, by Windsor, out of Pinkham, a low-set, smooth, level, thick-fleshed cow, is one of the best. A daughter of hers, Lydia Pinkham III., by Prince Royal =14836-, is also a cow of excellent individuality. This year's calves are mostly by Velvet, Prince =25590-, bred by J. & W. Russell, Richmond Hill, Ont., sired by Scarlet Velvet =21446-, out of Nonpareil's Beauty =26011-, by Stanley. These calves are all of much promise. Prince Lincoln, the bull in the illustration and now at the head of the herd, was bred by T. E. Robson, Hideron, Ont.; got by Golden Robe, out of Lady Zoo 2nd. The presence of such a bull at the head of the herd can hardly be otherwise than beneficial, and with such a foundation, Mr. Stothers should soon have bulls of high quality to dispose of to neighboring ranchers.

CANADIAN EXCURSIONS AT HAND.
Attention is again called to the Canadian Excursions which the Northern Pacific is offering the people in this vicinity to enable them to visit their homes and friends in eastern Canada. Both the farmer and the merchant have money this year, and it is expected, therefore, that there will be a large movement to eastern Canada this season. The rate of \$40.00 for the round trip is exceedingly low, and when you consider that it comes but once a year and that it enables you to renew again your acquaintance with familiar places and loved faces, it does not require much consideration to decide that the trip shall be made.

LEICESTERS!

40 Ram Lambs, 8 Shearlings, 50 Breeding Ewes, for sale.

A. D. GAMLEY,
Box 193. BRANDON, MANITOBA.

Galloways for Sale

6 Bull Calves for Sale
at right prices.

Also heifers and cows at reasonable figures. Stock all well pedigreed and first-class quality.

Apply to **T. M. CAMPBELL, Manager,**
Hope Farm, St. Jean Baptiste, Manitoba.

Fort Rouge Poultry Yards

FOR SALE: 25 Pekin ducks, 15 Bronze turkeys, 30 Plymouth Rocks, 15 Light Brahmans, 3 trios Golden Wyandottes, 1 trio Lang-hans, 2 trios and 1 breeding pen C. I. Game, 5 pairs Pearlguineas, fancy pigeons, and Belgian hares. Included in the foregoing are a number of prizewinners at the late Winnipeg and Brandon shows. All stock in first-class condition; and several of the pullets are already laying.

S. LING & CO.,
WINNIPEG.

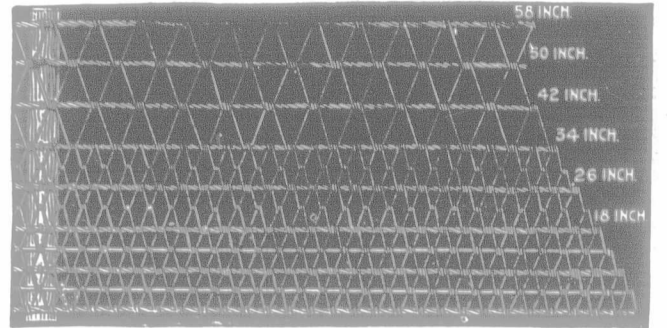
Norwood Bridge Poultry Yards,
WINNIPEG, MAN.

Breeder of high class T. C. B. Minorcas, Houdans, and White Wyandottes; also Bronze turkeys, Pekin Bantams, Pekin ducks. Young stock for sale of all varieties. Write or call.

PLYMOUTH ROCKS
HIGH-CLASS STOCK.

WILLIAM LAUGHLAND, - Hartney, Man.

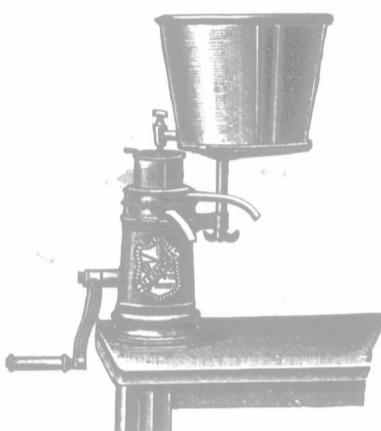
THE ELWOOD FENCES



are the Standard Woven Wire Fences of the World. Standard in quality of spring steel wire, standard in heavy galvanizing, standard in efficiency, durability and economy. Standard for every fencing purpose, for horses, cattle, hogs, sheep, poultry and rabbits. **STANDARD OF ECONOMY**—More of our fences sold and put up in 1899 than of all other woven wire fences combined. Sold by our agents everywhere. If no agent in your town write to

AMERICAN STEEL & WIRE CO., Chicago or New-York.

ALEXANDRA and MELOTTE CREAM SEPARATORS
The Best Made.



If you are looking for a paying investment, you cannot find anything better than one of our cream separators.

Argyle, Man., 3rd October, 1899.
Messrs. R. A. Lister & Co., Ltd., Winnipeg:

DEAR SIRS,—The separator we had from you in the summer continues to give us the best of satisfaction. It does its work quick, clean, and separates quite 450 lbs. per hour. In my estimation, it works with one quarter of the power required for any other separator of the same capacity; in fact, to turn it for half an hour at night is like a rest. Yours truly,
NEIL CAMPBELL.

For further particulars, address

R. A. LISTER & CO., Ltd.,
232 King St., WINNIPEG, MAN.

Dealers in all kinds DAIRY SUPPLIES and PRODUCE, GASOLINE ENGINES, TREAD POWERS, Etc.

Agents wanted in every district where we are not already represented.

It is but six months since the Canadian Dairy Supply Co. took hold of the **DE LAVAL SEPARATOR BUSINESS** in Manitoba and the N.-W. T. Notwithstanding working against great odds and coming into competition with machines sold at almost any prices, the superiority of the



"Alpha Baby" Separator

is acknowledged and established, as testified to by its many users.

The Canadian Dairy Supply Co., 236 King St., Winnipeg:

GENTLEMEN,—We have used one of the No. 2 Baby Alpha de Laval cream separators for six years, and are pleased to state that it has given us entire satisfaction. During the time it has cost very little in repairs, has always done excellent, clean work, whether the milk was skimmed right from the cow or left standing to get cold. We have just exchanged the No. 2 for the larger No. 3, and are pleased to state that this does equally good work. Yours truly,
St. Eustache, Man., Nov., 1899. S. LANEY.

Winter Sports

THE above is a cut of our Improved "Hyde Park" Hockey Skate

which is unequalled, and is specially designed for hard and fast work.

We also have the well-known Star Hockey Skates.

In Hockey Goods: STICKS, PECKS, PADS, KNICKERS, ETC., we have the best values in Canada.

Send for our catalogue of WINTER SPORTING GOODS and see what we have to offer. We assure you our prices are right.

THE HINGSTON SMITH ARMS CO'Y,
488 MAIN STREET, WINNIPEG.

HEREFORDS **STEEL BROS.,** Glenboro, Manitoba,
BREEDERS OF **Ayrshire Cattle.**

I keep only the best. For stock of all ages. Write or call. **WM. SHARMAN,** Ridgewood Stock Farm, SOURIS, MAN. Choice young stock for sale. 24-2-y-m

BUYING FROM THE U. S.

We are advertising for business, and are just as certain of selling you here as we are doing to-day in South Africa and Australia.

Our 304 page General Catalogue of everything to eat, use and wear, contains over 10,000 illustrations and quotes wholesale prices to consumers on 100,000 different articles.

Our Lithographed Catalogue shows Carpets, Rugs, Art Squares, Portieres and Lace Curtains in their real colors, so by looking at the colored plates, you can tell exactly how the goods would look at your window or on your floor.

You will never know how much money you can save until you see our Free Catalogues. Which do you want? Address this way.

JULIUS HINES & SON, BALTIMORE, MD., U. S. A. Dept. 227. 6 young bulls, by Manitoba Chief and Robbie O'Day, out of some of our best cows. 9 Berkshire sows of choice quality and breeding, from 5 months to 3 years.

DR. BARNARDO'S HOME. The managers of these institutions invite applications from farmers and others for boys and youths, who are being sent out periodically, after careful training in English homes.

THE Very Best PLACE FOR THE FARMER'S SON TO SPEND THE WINTER MONTHS IS AT THE Winnipeg Business College.

MOLINE PLOW CO. ILL. The Good Enough Sulky Plow CAN NOT BE BEAT. The Price will please you and its work will surprise you!

MINNESOTA MOLINE PLOW CO. H. F. Anderson, Agent, Winnipeg, Man.

R. A. BONNAR, Barrister, Notary Public, Conveyancer, Etc. Office 494 1/2 Main St., Winnipeg, Man.

NOTICES.

Central Business College. The Central Business College of Toronto, is enjoying unusual prosperity this term, and while it is constantly sending out capable young men and women into business positions, it has been found necessary to enlarge its premises and increase its equipment to accommodate the steadily increasing attendance.

Prizes for Dairy Essays. At a meeting of the Committee of the Western Ontario Cheese and Butter Association, in Brantford, it was decided to increase the value of the prizes, and to offer \$200 for essays on cheese and butter making, as follows: For essays on butter-making—First prize, \$50; 2nd prize, \$25; 3rd prize, \$15; 4th prize, \$10.

American Oxford Down Record Association.

The annual meeting of the American Oxford Down Record Association was held at Springfield, Ill., November 15th; President McKerron in the chair. The Treasurer's report showed a balance of \$712.82 on hand. Since the last meeting 251 copies of Vol. 7, containing 4,692 pedigrees, have been printed, at a cost of \$774.65; and \$735.00 has been paid in special prizes on Oxford Down sheep at State and Provincial Fairs in the U. S. and Canada.

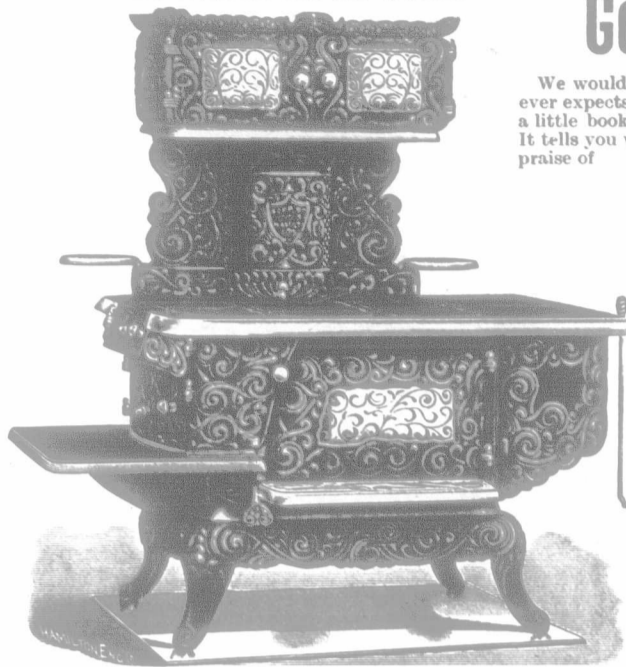
American Shorthorn Breeders' Association.

The regular annual meeting of the above Association was held in Chicago, November 22nd, 1899, at which the following officers were elected: President, C. E. Leonard, Bell Air, Mo.; Vice-President, J. F. Prather, Williams-ville, Ill.; Sec.-Treas., J. H. Pickrell, Springfield, Ill.

American Aberdeen-Angus Breeders' Association.

The regular annual meeting of this Association was held at the Leland Hotel, Chicago, Ill., on November 22nd, with a large attendance of breeders and others interested in Angus cattle. The following general officers were elected for the year 1899-1900: President, L. McWhorter, of Illinois; Vice-President, W. F. Dickinson, of Minnesota; Secy.-Treas., Thos. McFarlane, of Illinois.

"BY VIRTUE and BY WORD."



J. C. & A. W. FLEMING, Rosebank Stock Farm, Pilot Mound, Man. Breeders of Poland-China pigs and Cotswold sheep of choice quality, offer select seed potatoes of eighty varieties. Write for catalogue.

BLACK MINORCAS.

Young stock for sale—some beauties. Satisfaction guaranteed. A. M. ROBERTSON, KEEWATIN, ONT. Oh, Yes! We sell Holstein Bulls. Sold 7 in May. Have 12 now on hand; oldest 9 months old; bred right and are right. Write for particulars. Male or female. State what you want. A. & G. RICE, Currie's Crossing, Ont., Oxford County.

For Sale.

The Samuel Hanna Estate, at Griswold. As this estate must be closed out, it has been decided to offer for sale all those splendid farms owned by the late Samuel Hanna, and comprising about seventeen hundred acres within a few miles of Griswold. The land will be sold in parcels. It is highly improved with buildings, fences, and cultivation. A great opportunity is here offered to any one desiring a first-class farm. For particulars apply to Edmund W. Hanna, Box 243, GRISWOLD. Or to Coldwell & Coleman, Barristers, Brandon.

HACKNEYS



We have on hand several Hackney Stallions, both imported and Canadian-bred; all of the best strains, and all prizewinners at our best shows. The right time to buy stallions is during the fall and not when spring comes along. At the latter time all entire horses have their routes laid out, and owners cannot afford to disappoint their patrons. Apply now and get reasonable quotations. Send for catalogue and particulars to HORACE N. CROSSLEY, Rosseau P. O., Dist. Parry Sound, Ont.

Edward R. Hogate Company

IMPORTERS OF English Shire and Clydesdale Stallions. We have them on hand from 3 to 5 years old, weighing from 1,800 pounds upwards. Write now for particulars and where you can buy the cheapest. We expect our next importation from England to arrive about January 1st, 1900. ADDRESS: EDWARD R. HOGATE, 10 Maitland Street, TORONTO, CAN. Bars: 84 and 86 George Streets.

Good Words

We would like everybody who has a range or ever expects to have one, to be in possession of a little booklet entitled "It Has Never Failed." It tells you what just 159 people have to say in praise of

The ABERDEEN

(FOR COAL AND WOOD)

The VICTORIAN

(FOR WOOD ONLY).

It emphasizes the strong points in an honest and concise way—the unsolicited testimony of people who have tested the merits of these excellent ranges. Drop a card for a copy.

The Copp Bros. Co., Ltd.

HAMILTON. BRANCHES: TORONTO AND WINNIPEG.

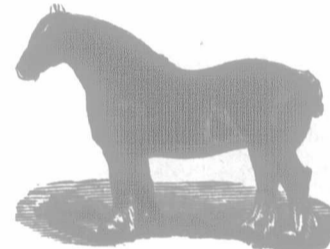
Herdsman Wanted.

Single, steady and willing.

Engagement by the year with board. Also MARRIED MAN to assist in stables in winter, and care for garden and lawn in summer. Both must be well recommended. Apply by letter or personally to JAMES BODEN, St. Annes de Bellevue, Que.

THORNCLIFFE Stock Farm

The largest stud of Clydesdales in Canada, headed by the Champion Stallion of all ages, "LYON MACGREGOR."



Stallions, Mares, Colts and Fillies

Of all ages, from the best blood in Scotland and Canada. Now is the time to purchase a young colt and raise him yourself. We have on hand weanlings weighing over 900 lbs., also year-olds, 2-year-olds and 3-year-olds, colts and fillies. Ayrshire bulls and heifers from imported stock. Best milking strains, with good teats. Terms reasonable. A visit to Thorncliffe will well repay you.

ROBT. DAVIES, Thorncliffe Stock Farm, TORONTO.

DALGETY BROS., GLENCOE, ONT., Largest Importers . . . in Canada.

A large importation of

CLYDESDALE Stallions and Mares just arrived, also Hackneys and Shires, including several prizewinners in Scotland. Ages ranging from 2 yrs. to 6; weighing up to 2,400 lbs. No exorbitant prices asked. Small profits and quick returns.

SHORTHORN CATTLE AND LINCOLN SHEEP.

Imp. The Baron at head of herd. Seven young bulls for sale—good ones. Also a few females. Stud rams all imported from H. Dudding, Esq.; the same blood as the 1000-guinea ram.

J. T. GIBSON, DENFIELD, ONT.

SPRINGHURST SHORTHORNS

The famous sire, Abbotsford = 19446 =, and the crack young show bull, (imp.) Knuckle Duster (7293), head the herd, which is largely of Cruickshank blood. Twelve good young bulls (some toppers), and a choice selection of females for sale. Address, Exeter Station, G. T. R., H. SMITH, half mile from farm. HAY, ONT.

FLEMING'S LUMP JAW CURE



LUMP JAW QUICKLY CURED.

A case of lump jaw in your herd means immediate loss; it may mean the infection of the rest of your herd; it may result in the distribution of the germs all over your pastures. All loss and danger can be positively averted by prompt use of

Fleming's Lump Jaw Cure

The only radical cure known. Is endorsed by the most prominent ranchers and shippers of the continent. Easy to use. Is applied externally. One to three applications cure. Leaves jaw sound and smooth. Cannot harm in any way. One bottle usually cures two or three ordinary or one severe case. Price \$2.00. Sold by druggists. Can be sent anywhere by mail.

Honey cheerfully refunded if the remedy ever fails.

FREE—Some important reports and an illustrated treatise on Lump Jaw. Write for them.

FLEMING BROS., Chemists, St. George, Ont.

ANTISEPTIC FIBREWARE

—FOR—



BUTTER, HONEY, JAM, ETC.,

The E. B. EDDY CO. (LIMITED), HULL, - P. Q.

HERE IS A LIST OF THE PRINCIPAL MANUFACTURERS OF SPRATT'S PATENT, LIMITED:

Dog Cakes, Charcoal Dog Cakes, Greyhound Cakes, Plain Round Cakes, Oatmeal Cakes, Puppy Cakes, Pet Dog Cakes, Cod Liver Oil Cakes, Orphan Puppy Food, Pepsinated Puppy Meal, Plain Puppy Meal, Bone Meal for Puppies.

OF REMEDIES, ETC., THE FOLLOWING:

Dog Soap (white), Antiseptic Soap (black), Tonic Tablets, Mange Cure, Eczema Cure, Purgative Tablets, Cough Tablets, Vermifuge, Puppy Vermifuge, Cooling Tablets, Locurium, Liniment for Sprains, etc., Hair Stimulant, Jaundice Tablets, Cure for Canker, Fit Cure, Distemper Tablets, Anti-Rickets Tablets, Eye Lotion Tablets, Diarrhoea Cure.

Send for catalogue of dog and poultry foods and supplies of **Spratt's Patent Ltd., 245 E. 56th St., N. Y.** (San Francisco Branch, 1385 Valencia St.) Canadian Agents: F. Hughes & Co., Montreal; J. A. Summers, Toronto; John S. Pearce, London; M. F. Eagar, Halifax, N.S.; Whitehead & Turner, Quebec; W. H. Gillard & Co., Hamilton, Ont.

METAL EAR LABELS

Used by all Live Stock Record Associations.

Sheep size, per 100.....\$1.50
Hog size, per 100..... 1.50
Cattle size, per 100..... 2.00

Punch and Pliers for attaching labels to ear, each \$1.00. Same on one side and any numbers wanted on reverse side.

F. S. BURCH & CO., 178 Michigan St., Chicago, Ill.

Mammoth Bronze Turkeys

S. G. Dorkings, B. P. Rocks, S. C. B. Leghorns, Black Minorcas. Over 1000 21-day-old young birds from winning stock. \$1.50 and \$2.00 per pair, including shipping.

T. & H. SHORE, WHITE OAK, ONT.

THERE'S No "Guesswork" WHEN YOU USE Eastlake Shingles



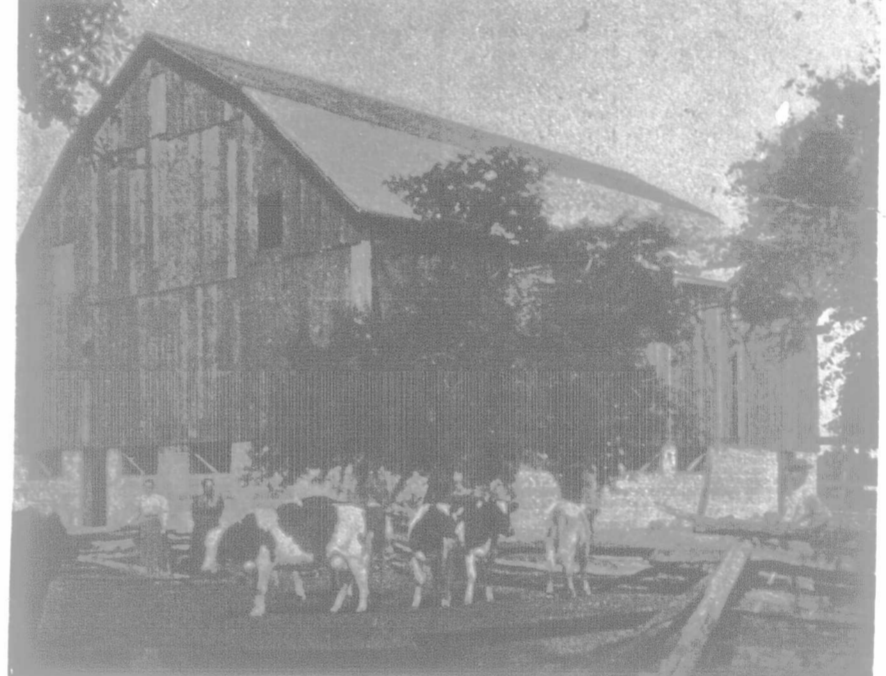
Galvanized or Painted.

They fit together perfectly, and are quicker to lay than any other Shingle made, because of their special patent side-lock. They give lasting protection, are fire and lightning proof, and cost far less in the end than others, because of their honest reliability.

Cover your barns and houses with Eastlakes, and you'll have honest satisfaction. Full information if you write

THE METALLIC ROOFING COMPANY, LIMITED
-om 1182 King St. West, TORONTO.

STILL ANOTHER BEAUTIFUL Basement Wall —BUILT WITH— Thorold Cement.



BARN OF THOMAS HARTLEY, NEAR NORWICH, ONT.
Size of Basement Walls, 50 feet x 68 feet x 9 feet high.

WHAT MR. HARTLEY HAS TO SAY ABOUT THOROLD CEMENT:

ESTATE OF JOHN BATTLE, MFRS. OF THOROLD CEMENT, THOROLD, ONT.: Norwich, Ont., October 24, 1899.

DEAR SIRS,—I used this year 135 barrels of your justly celebrated Thorold Cement in building my barn walls and floors, also a silo foundation and milk cellar. I wish to give you my testimony to the good quality of the Thorold Cement, and will strongly recommend its use to my brother farmers.

My work was done under the superintendence of your traveller, M. A. Ware, whom I consider a capable man in his work, as he thoroughly understands the use of Cement in all kinds of structures.

Respectfully yours,
THOMAS HARTLEY,
Dealer in Thorolded Holstein Cattle.

Mr. Thomas Hartley is a prosperous farmer in Oxford County, about two miles from Norwich. He is also one of the largest breeders of Holstein cattle in the County of Oxford.

In the construction of the walls of his fine large barn, size 50 ft. by 68 ft. x 9 ft. high, also of Cement floors all through the same, 135 barrels of Battle's Thorold Cement were used, with 84 cubic yards of gravel, and a quantity of small stone. Mr. Hartley also had built a large silo foundation 16 ft. x 17 ft., also a milk cellar 6 ft. x 10 ft. This room is divided from the stables with an 8-inch concrete wall.

He has stabling room for twenty-eight head of cattle and five head of horses, arranged with single stalls and two box stalls.

For free Pamphlet with full particulars, address **ESTATE OF JOHN BATTLE, Thorold, Ontario.**

OXFORD HERD OF POLAND-CHINAS

The home winners of the winners

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. -om MT. ELGIN, ONT.

DUROC-JERSEY SWINE.

We have a fine lot of First-Class Stock of all ages and either sex. Address, -om **TAPE BROS., Ridgetown, Ont.**

PLEASE MENTION FARMER'S ADVOCATE.

I HAVE A FEW **FIRST-CLASS CHESTER WHITE BOARS** (any litter), sired by one of the longest Chester boars in Canada, for sale; also Dorset ewes any age, and Shropshire ewes and ram lambs. For further particulars write

R. H. HARDING, Mapleview Farm, THORNDALE, ONT.

EGGS FOR HATCHING: Brahmas, Games, Minorcas, Wyandottes, Dorkings, Hamburgs, Houdans, Polands, Leghorns, Ducks, Geese, and Turkeys. -om For prices write, **WM. STEWART & SON, MENIE, ONT.**

THE GLOBE FURNITURE COMPANY, LIMITED, WALKERVILLE, ONTARIO.

CHURCH DEWS, PULPITS, ALTARS, SALS, SCHOOL DESKS, ETC.
WRITE FOR PRICES

The Best is the Cheapest

YOU DON'T WANT LIME OR MAGNESIUM, WHICH ARE SOMETIMES CALLED SALT, BUT

Windsor Pure Salt

WHEN MAKING BUTTER AND CHEESE.

Dissolves readily and uniformly.

FOR SALE BY ALL GROCERS.

The Windsor Salt Co., Ltd. WINDSOR, ONT. -om

ADDRESS **Belleville Business College.**

FOUR WELL-EQUIPPED DEPARTMENTS. **BELLEVILLE, ONTARIO. -om**

WINTER TERM OPENS JAN. 2nd.

CENTRAL Business College

STRATFORD, ONTARIO.

A large, popular and progressive school. Our catalogue is a gem. Write for one. It will interest you. -om **W. J. ELLIOTT, Principal.**

Situations

in the Business Field are constantly opening to those who are qualified to fill them. **The**

CENTRAL-BUSINESS COLLEGE

TORONTO, received these calls for help within three days from Oct. 30th: Bradstreet's Agency, lady stenographer; H. H. Williams, Real Estate, young man, clerk and stenographer; J. D. King & Co., lady stenographer; Gowans, Kent & Co., lady bookkeeper; King-Darrell Produce Co., young man, bookkeeping and stenography.

Our students secure such places as soon as they become qualified for them.

IT WILL PAY TO PREPARE FOR THEM.

Correspondence invited.


W. H. Shaw, Principal.

"CORED TO DEATH"

is the startling headline of many a news paper article. Horrified animals are safe, done with the **DEHORNING KEystone KNIFE** causes less pain than any device made. Cuts on 4 sides at once—clean and quick, no crushing or tearing. Fully warranted. **Greensley & Co., FREE.**

KEYSTONE DEHORNING CO., Picton, Ont.

HANDY STOCK LABELS, \$2 PER HUNDRED AND UP



according to the number of letters and figures required. Also handy punch and nippers to insert the same. The better support we get the cheaper we can make them. Good reference and honest dealing. Send for circular and price list.

R. W. James, Farm Implement Forwarding Agency, -om 119 King Street, BOWMANVILLE, ONT.

CHAMPION EVAPORATOR

For MAPLE SYRUP and SUGAR. Has a corrugated pan over firebox, doubling boiling capacity and saving fuel; small interchangeable syrup pans (connected by siphons), easily handled for cleansing and storing, and a perfect automatic regulator, which secures rapid and shallow evaporation, and produces the best quality of syrup. The Champion is a perfect evaporator for



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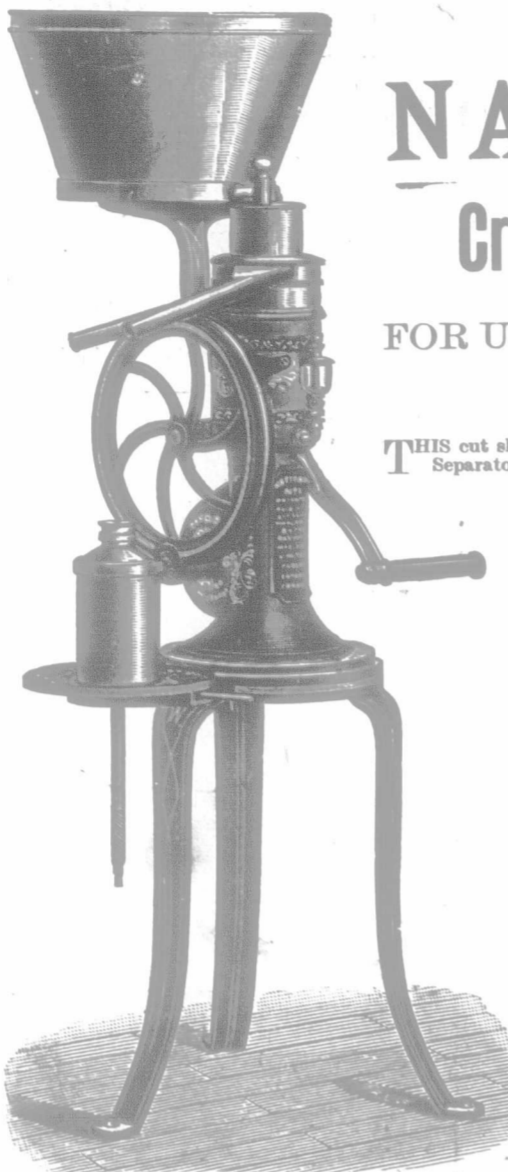
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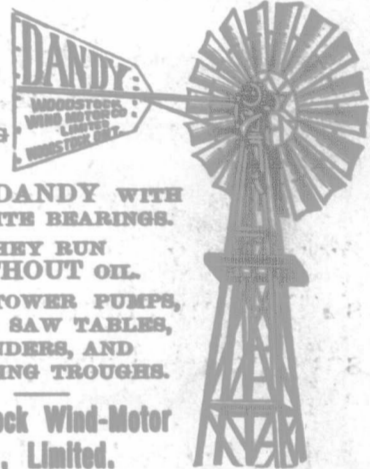
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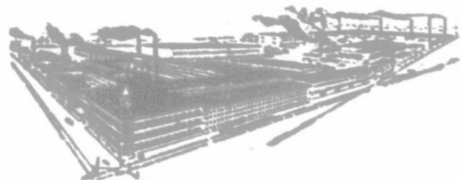
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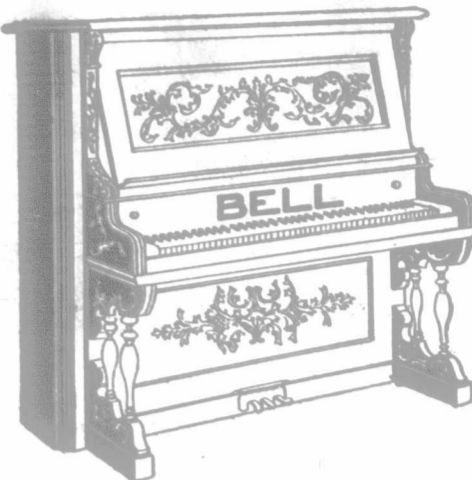
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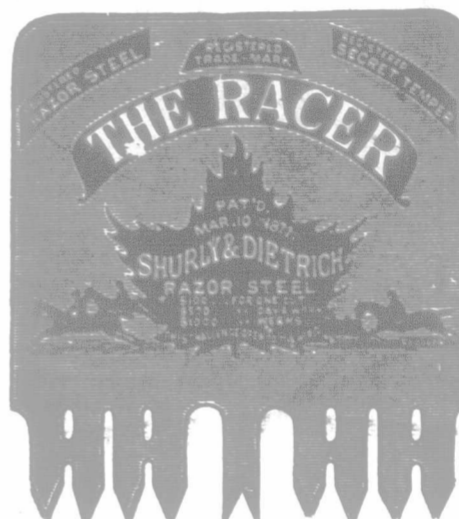
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