

**PAGES
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and Home Magazine

"Persevere and Succeed."

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EDITORIAL.

HOW THE LABORER'S POSITION COMPARES.

Last week, in discussing this problem, we stated that church, school, platform and press had tended, by broadening the individual citizen's outlook and stirring humanitarian impulses, toward an ultimate betterment of the laborer's position, while hand in hand with these agencies had gone invention, which intellectualized labor and stimulated it to organize and obtain increasing remuneration for its toil. Well that such influences have been at work, for, on the other hand, modern Industry and Finance, by centralizing and monopolizing manufacture, and fleecing the gullible public by floating watered stock and by various other forms of organized extortion, aided by protective tariffs and unjust taxation, have unquestionably brought about the concentration of much wealth into a few hands, especially on the American continent. It is these few and the middle classes who set our standards of living, dictate the expensiveness of our fashion, and are responsible for the heavy economic loss which results from the frequent changing of styles in everything, from boots to millinery.

It must be admitted that, to a large extent, the standard of living varies with the age and the neighborhood in which one lives. The father who resists his son's appeal for 30 cents to join a baseball team, by telling him how little money he had to spend when a boy, is using an unfair argument. It is easy to do without things one never has had, particularly if his neighbors haven't them, either. It was no embarrassment to wear fresh-greased, cow-hide top boots to school or church when all the other boys were doing the same, but it would sting the spirit of the least sensitive lad to be the only one wearing such foot-gear in public. The young couple who went West to rough it on a homestead, think lightly of the deprivations, because their neighbors are in much the same straits. Had they remained in the East, they would have found it necessary to spend more for furniture and clothes. So it will not do to compare the workingman's wages today with those he received ten or twenty years ago, and jump to the conclusion that he can have no possible cause for complaint. Rents have increased at a feverish rate, the cost of most staple lines of goods has risen considerably since then, besides which there are many new demands upon his purse. The workingman of to-day aspires—and quite properly and worthily aspires—above the position of a mere clodhopper. His own self-respect and the interests of his family demand that he conform, in so far as his means allow, to the usages and amenities of civilization. The city laborer has his water rates to pay, his rent or taxes and interest, his electric-light or gas bill, his street-car fare, and an occasional railroad trip, to say nothing of the hundreds of other items that bulk so large in the course of a year. He probably feels, also, that his home is incomplete without a musical instrument of some kind. And why shouldn't he be entitled to these things, when his employer is riding around in a five-thousand-dollar automobile, and sending his daughter on a trip to Europe? Fashion dictates the luxuries of the rich, and no one raises a hand of protest, no matter how dishonorably the money that buys the luxuries has been obtained. Yet there are plenty of people who dwell with horror on the "increasing extravagance" of the poor, and if they find a laborer who is profligate or drunk, how ready they are to point their cut-and-dried conclusion that prosperity, beyond a frugal living, is no benefit to the workingman. By these same

critics, the indulgences and misdeeds of the well-to-do are tolerantly condoned, especially if they happen to be liberal supporters of public benefactions. We talk considerably about equality and democratic privileges, but a great many of us who laud these things in the abstract do not think or act accordingly when it comes right down to the point in the form of a concrete instance.

The general conclusion to be drawn from the foregoing paragraphs is that, while the unmistakable tendency of modern times, especially in the New World, has been towards an improvement of the laborer's position, still the real betterment to date is not so great as commonly supposed, for, while the average of intelligence, comfort and culture in the laborer's family is undoubtedly advancing, the relative positions of the average workingman and the average capitalist employer are about as far apart as ever they were, and the laborer who seeks to conform reasonably well to the demands of the present-day civilization must needs calculate about as closely as did his prototype of earlier times. Meanwhile, we leave our readers to ponder the statement of a prominent publisher, who declared to us recently that he could get scores of editors, but had advertised for printers in vain. Why is it so?

AGRICULTURE AND EDUCATION.

"No country can be greater than its rural population," said A. H. U. Colquhoun, Deputy Minister of Education for the Province of Ontario, in a recent speech. A similar thought had been expressed a month before by President Roosevelt at Lansing, in the words, "No growth of cities, no growth of wealth, can make up for a loss in either the number or character of the farming population." How can this standard be maintained and raised? When all other agencies have done their part, a tremendous responsibility rests upon the rural public and high schools.

The latest tangible evidence that this fact is adequately realized by those who shape our educational systems, is the introduction of agricultural classes into six Ontario High Schools. For this reason, a very special interest and importance attaches to the new movement, and amply warrants the prominence which it is being given in these columns. The nature and objects of the new work were explained in our issue of June 27th by C. C. James, Deputy Minister of Agriculture for the Province, and elsewhere in this issue we present half-tone portraits, with biographical notes, about the young men who have been selected for the important positions as organizers and teachers of the classes of agriculture in the six Agricultural High Schools. All are good sensible farm boys, graduated from the Ontario Agricultural College; five are natives of Ontario, and one of Nova Scotia. Some of them have had pedagogic experience, and, from the way they have gone about the organization of their classes, and the favor met from the municipal councils which they have approached, the prospects for the success of these schools appear to be bright. Much, however, will depend upon the local support received from farmers and their sons. At first the classes may not be large, but they will increase according as the value of the Agricultural High School becomes demonstrated.

The importance of the new movement is great. It marks, let us hope, the inauguration of a new era in education, an era under which the aim will be to make the Public and High School courses as complete as possible in themselves, instead of being framed as part of an educational ladder, the prime purpose of which has been to lead to the university. In order to raise the standard of the rural population, we must do more than has yet

been done to intellectualize the occupation of agriculture, to instil into the schools a pride and enthusiasm therefor, and impart a degree of instruction that will prove practically useful to those who leave the school for the farm. Incidentally, the new course will prove a more important means of culture than the old. All this demands the remodelling of our whole school system. The new movement is a milestone which marks the turning of the way.

DOMINION DAY IN QUEBEC.

We have just passed another milestone in the march of progress of our great commonwealth. Forty years ago, a handful of farseeing men, peering into the future, saw the possibility of Canada becoming a great nation. They saw the disabilities of the scattered and disintegrated Provinces in Eastern Canada, and in these they saw only one hope for a grand future for our Canadian land, which hope was realized in the federating of the various Provinces along the Atlantic seaboard with the inland Province of Ontario. This, coupled with a faint hope that the vast extent of country, made up of lake, prairie and mountain, lying between the Great Lakes and the Pacific Ocean, which seemed a land fit only for the Indian to dwell and roam, for the buffalo to wander, and the miner to search for the hidden wealth, might possibly be of some value to the generations then unborn. But the hopes of the most sanguine have been more than realized. While advancement has been made in the East, yet a more marked progress has been in the West. Here we have seen the old-time methods supplanted by those of modern days. New systems of agriculture have taken the place of the old. We see the evidences of industry, thrift and prosperity on every hand. We see our farmers enjoying the fruits of their labors in more comfortable homes, made convenient and beautiful as advancement was made correspondingly in other things; stables that are models of their kind, finished more fancifully and expensively than were the farm homes of forty years ago. Modern farm implements lighten the toil and enable the farmer to accomplish more work at less expense, thereby cheapening the cost of production. All this spells PROGRESS.

While we dilate on the progress and success we have achieved as a young and growing nation, let us not forget at this time that there is something more for our young Canadians to think about than simply the material progress of our country. Is our country going to continue to make steady progress in the face of the problems that will confront her as she continues to grow? To assimilate and fuse into one nationality those of other blood, ideas and religions, into a people having common sympathies and aims, full of integrity, and at heart a noble purpose, to my mind, is the greatest problem our country has to face. And right here is a grand work awaiting young Canadians: to foster a deeper spirit of loyalty to our country and its institutions, and aim to inculcate into the hearts of those who may come to our shores from other lands the same kindred spirit.

To foster just such a spirit, the farmers of the adjoining county, Chateaugay, commenced twenty years ago to celebrate our national holiday by holding a "farmers' picnic" near Howick. This outing has been held continuously since the commencement, which speaks well for the men and women of that section in perpetuating an institution of its kind, not only making it a holiday and a day of enjoyment, but a day of profit as well. Besides meeting to partake of the edibles prepared for the occasion, to have a social chat with old friends, to participate in the games and races, but also to listen to the addresses of the speakers

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selected for the occasion, who discuss various topics of the day (except political questions).

The gathering on Dominion Day was a large one. The day was fine, although somewhat heavy and threatening in the morning, and it was enjoyed by old and young. We were specially favored this year by having the Provincial Minister of Agriculture, Hon. J. Allard, with us, who gave the address of the day, and referred to the possibility of doing more for our country roadways when the increased subsidy was received. As it was his first visit to this section of the Province, he spoke in glowing terms of the appearance of industry, thrift and intelligence of our farmers.

It was hoped the gold medal, won by our young stockman, R. R. Ness, of Howick, and the other seven silver medals coming to this section in the "Reward of Merit" Provincial-farms competition, would have been presented the successful competitors, but somehow they did not come to hand in time, which was a disappointment. The picnic was held in the beautiful maple grove of Wm. Greig, Cairnside.

Since last writing, we have had copious showers, refreshing all verdure wonderfully, and all vegetation has made marked progress. Hay will be a light crop, but the quality will be excellent; cutting, which usually commences about July 1st, will be ten or twelve days later. Grain is a good color, but at date of writing promises to be short. Corn and roots did not start well, owing to the exceedingly dry, hot weather, and there are a number of misses. Where these have had a good start, they have come ahead quickly. A few fields of corn are now about 15 inches high, but they are the exception, not the rule. Potatoes have come on well. Grass lands are not good, consequently the milk flow is far below what it usually is at this season. Prices for milk products are good, although dropping a little.

W. P. S.

THE INVENTOR OF THE SPLIT-LOG DRAG.

Missouri is the State whose natives are supposed, as the slang phrase goes, "to require to be shown," but in D. Ward King, of Holt Co., the inventor of the split-log drag, she produced a man who has returned the compliment, by showing the rest of America how to make good earth roads without money, or, if the volunteer labor be counted, as it should be, at a cost of four to six dollars per mile per year. Mr. King is a farmer, and has lived on one farm, he says, for twenty-five years. At least, he was living on it till the work of the split-log drag made him famous and created a demand for his services on the lecture platforms. When he went to Holt County, the roads were simply trails over the country. Later they were fenced in and made into highways. This was the starting of bad roads. Rain and travel made them bad. They soon became lower than the adjoining land, and served as ditches. Our friend studied the road question, becoming what he calls a "road crank." He heard of a road machine in the East—a reversible grader. He procured one, but it did not answer the purpose. One spring day in 1896 he hitched to a cheap contrivance made something like a three-rung ladder, and, stepping onto it, drove down the road toward his neighbor's front gate and back, one horse of the team on each side of the right-hand rut, the drag following at an angle of about 45 degrees. The road

had been badly cut up by travel during a spell of wet weather, and was just drying. The drag scraped the surface of the rough road, broke down the edges of the rut and deposited the loose earth in the ruts and other low places, leaving it smooth. The largest clods were moved to the center. The road was better at once. After the next rain he repeated the operation, and has done so, or had his hired man do so, with few exceptions, after every rain, to the present time. The road continued to improve, and became locally famous because it never got very bad, and because it dried and became in fine condition so quickly after the rain ceased. The first drag was made out of an old pump stock and some other stuff. The second season he made a drag out of the trunk of an old box-elder tree. It was very crooked, but he split it, and made a fairly good drag. He used this for five years and made his road famous. Not only was it kept smooth and hard, but it became graded so high that the neighbors objected, and he had to reduce it a little.

The wonderful improvement wrought by the drag was brought to the notice of Secretary Ellis, of the Missouri State Board of Agriculture, who investigated thoroughly, and then arranged with him to go out into the State for the purpose of spreading the information gained by the experi-

ment. Since then he has been more and more occupied in explaining and demonstrating this simple method of roadmaking.

Notwithstanding his self-styled characterization, the inventor of the drag is not a crank. He does not claim that no means of road improvement should be used except the split-log drag. On the contrary, he advises the thorough macadamizing of a small percentage of the leading highways, and argues that "no community can afford to do without stone on its main thoroughfares when land is worth thirty dollars per acre, and rock can be had within three miles." But to macadamize the whole or even the greater part of the road mileage under these conditions is not desirable. On the less-travelled roads, leave the earth surface, and improve it by dragging ten or twelve times a year.

Mr. King is described as a man of splendid physique, as well as mentality, and appears to make a most favorable impression wherever he delivers an address. He is the stamp of citizen of whom we never have enough. A less enterprising man would have waded through the mire from year to year without cudgelling his brains to find a remedy, and finally have sunk into a seven-by-six-foot grave, leaving his children and neighbors to do the same. A less thoroughgoing man would have been content with improving the road a little, and letting it go at that. Not so with Mr. King. He knew he had hit upon a good thing, and made the most of it. The result was such striking improvement as to attract the attention of the State officials, and since then of the whole continent. There is a lesson in this example for our young men.

A CALL TO STEADY OUR PACE.

For some time past financiers have experienced an unmistakable stringency in the money market. Available capital has been scarce, and rates of interest high. Casting about for an explanation, one's attention is called to the fact that Canada's imports have greatly exceeded her exports, the difference being made up in cash or by borrowing abroad. In so far as the deficiency of exports has been due to delay in moving the wheat crop and other produce to the seaboard, this explanation may hold good, and the conditions will be to that extent relieved when the delayed crop is finally marketed. Another cause of the so-called unfavorable balance of trade is the continued influx of immigrants, most of whom are consumers before they produce much for export. This factor, however, while it partially accounts for an excess of imports over exports, does not explain to an equal extent the financial stringency, for many of the immigrants bring with them a certain amount of money to pay for their living, and this, so long as it lasts, constitutes an increase in the circulating specie.

The main cause of the close money market in Canada is that we have been striking too fast a pace, not only in living higher than we used to do, but in undertaking new enterprises on a gigantic scale, building railroads, towns, cities and manufacturing establishments faster than our means warrant. More settlers, more railroads; more railroads, more settlers, has been the cry, and other forms of constructive and development work have likewise proceeded apace. This has gone on so fast that much of the labor and material have had to be imported, and we have not been reaping the full benefit of the expenditure on development account. Of course, when all these enterprises begin to produce, we may expect easier times, but there is no doubt that the pace has been abnormally fast, and therein lies the trouble. Month after month since the new year opened the normal increase in bank deposits has fallen short of the normal increase in demands on the banks for money and credit, not to undertake new enterprises, but to complete those already undertaken. So it has been necessary to borrow abroad; but here, again, the tremendous economic waste entailed by the Boer and Russo-Japanese wars have absorbed surplus capital, hence we have been unable to borrow as readily as before.

There is nothing really alarming in the Canadian situation; it is more wholesome than alarming. The Dominion is still on a perfectly sound financial basis, but the call is clear to slacken our pace—to steady up, as it were. This is a good thing. Incidentally, it will enable us to reap more benefit from the era of national development now under way.



D. Ward King.

Inventor of the split-log drag.

HORSES.

THE PROBLEM OF THE HORSE INDUSTRY.

SOME TRICKS OF THE BUSINESS.

Clearly, the initial improvement of conditions, pointed out last week, must come by the use of good, pure-bred sires, and then by carefully culling out the poor fillies and keeping only the best ones to breed from, and by each man sticking to one breed. Where this has been done for a dozen or fifteen years, the improvement has been beyond the hopes of the breeders themselves. Unfortunately, few kept on using pure-bred sires. Many started well, but after two or three strains of pure blood had been infused into their stock, they kept one of the colts for a stallion because he looked so much like a pure-bred. Up to this time the process of grading up had been going on; now retrogression invariably set in. The grade, having but a short line of breeding, and not particularly strong blood lines, failed to get animals as good as himself. Not only was the owner's stock deteriorated, but many neighbors, because of the low service fee and good appearance of the animal, went by good pure-breds and bred to him. Thus, many horsemen were forced to buy cheap pure-breds to compete with the low service fee of the grade. In some sections the word "young" or "second" is prefixed or affixed to the sire's name. At the same time, the sire's cut is often used on the route bills, and his pedigree given. The average man, knowing but little of pedigrees, is often led to believe that this grade is pure-bred, or just as good. Few stallions furnish cuts of their own horses; in fact, only the owners of good, pure-bred horses. The majority ask the printer to use the best cut he has of a certain breed and color, with certain markings, or near to these markings. On the road, more than one glib-tongued groom has satisfactorily accounted for the better appearance of the cut than of the horse, and left the inquirer with the impression that the animal looked thus when properly fitted. Some horses are passed as pure-breds, the certificates being kept at home for safety. Other cases are known where a copy of a certificate was carried, but it did not belong to that horse, but passed muster as all right, because nobody who knew bothered to examine it. Transfers have been shown as certificates, and passed off as such for years, while certificates signed by Dodd or Thompson look good to the majority, particularly when the fee asked is small. In Iowa and Wisconsin, where all stallions must be enrolled, many certificates have been sent in that investigation proved to have been tampered with. A common trick was raising the age; another was adding to the description to make the certificate suit another horse. Some of these last certificates have come to Canada, while horses with the unmistakable characteristics and markings of one breed have been sold under certificates of registration of another breed.

Another practice which works incalculable evil to the industry is the system of syndication, as usually carried on. First get lots of corn into the horse, then go to the right man in each place, give him his price to help you, then you can syndicate any horse. This is one horseman's motto, and, judging from the number of horses stocked at anywhere from twice to ten times their value, it is quite correct. Horses that had small, mismatched feet, upon which they did not even stand level; stubby, upright pasterns; untrue action, due largely to malconformations; turned-out hocks that would never become boggy, as they already were so; and these undesirable characteristics go with upright shoulders, and quite often long backs, poorly-muscled loins and short quarters. Nevertheless, if you inquire, you will be told promptly that these are first-class horses—must be, because they cost anywhere from \$2,500 to \$4,000. Judging from what breeders do—not what they say, for most men want to be thought horsey—not over ten per cent. of them know a good horse when they see him, or what points of excellence a horse should possess, and why. Another trick practiced by some dealers is to have a horse or two for syndication purposes—good horses in every way but one, viz., they are not breeders. These horses are syndicated over and over again in different places, and as often taken back, a cheap, inferior horse being given in exchange, according to the agreement that the first horse would get colts or be replaced. This trick was carried on to such an extent in some of the States that a law had to be passed compelling the vendor to give a sixty-per-cent. breeding guarantee, and if the horse did not prove up to the standard, to take him back and refund all money paid. Many of these high-priced horses are unsound. Sometimes they have a genital disease, which they transmit to the mares they serve. In one case a horse was bred to over 100 mares, with a few colts as one result, the other being that the local veterinarian made some money treating thirty or more of the mares for a genital disease.

Tersely, the situation may be put in a few phrases: Poor foundation stock, poor care and management, too many grade and scrub sires; no proper protection for the breeder, the stallioner with a good horse, or the honest dealer; a general lack of interest, and a great lack of true horse lore through many sections of the country, which accounts for many of the practices, such as the syndicating of a scrub for ten times his value, and then passing him as superior to good horses because of his price; few local associations to take up the industry and put it on a proper basis; little correct knowledge of the existing conditions, either along lines of breeding or marketing.

"NEMO."

COMMON SENSE VS. WHIPS.

A travelling representative for a harness-goods house recently said of the whip situation: "In proportion to the number of people who drive horses, not half as many whips are used nowadays as there were a quarter of a century ago. Many owners of horses now never carry a whip. I have known men who always have horses, and yet have never struck one of their animals with the whip. Many people hold that if a horse is properly reared from colthood, it will never need a whip. What are termed the bad traits of a horse are usually caused by the people who have handled them. Some bad traits of horses are hereditary, but they can usually be traced back to bad management of ancestry. The more good sense a driver has, the less punishment his team will need. It is all practically a matter of good common-sense."—[Live-stock Journal.]

RECORDS OF GRADED STOCK.

A correspondent at Osler, Sask., writes as follows:

Editor "The Farmer's Advocate":

Re the article, "Keep the Standard up for Clydesdale Registration," I have just worked out the following table, on which I should be glad to have your advice. Please correct same in case it is wrong:

Table with 6 columns: Name of mare, Bred in the year, Offspring born, Name of offspring, No. of cross. veins, % of pure blood in offspring's veins. Rows include X (scrub), A (grade), B, C, D, E, F, G, H.

*Grade or Pure-bred.

In the above table every first offspring is supposed to be a filly foal, and mares bred when three years old.

Clydesdale Breed.—Which is the first mare colt entitled to registration, and which is the first stud colt entitled to registration, according to above table, corrected if need be?

Percheron Breed.—Which is the first mare colt entitled to registration, and which is the first stud colt entitled to registration, according to above table, corrected if need be?

I own scrub mare X and grade colt A.

What course shall I follow in order to have A's great-grand offspring registered when they are born?

Should I get a blank or form now (from whom?), on which A's pure-bred sire and scrub dam's names would be put down, in order that when A's entitled-to-registration offspring is born, the ancestry of said offspring may be traced down to its great-grandam?

I should be glad of getting an answer to above questions through your paper, as doubtless many farmers will read same with interest.

R. M. E. P.

Sask.

With Clydesdales, the rules for registering graded-up stock read: "Stallions having five top crosses with their dams on record, and mares having four top crosses in each case by a sire recorded in the Clydesdale Studbook of Canada, shall be entitled to registration."

This means that, in the case of our correspondent, D would be eligible for registration, and a horse colt from D by a registered Clydesdale stallion would be eligible.

With Percherons, we have not been able to get information from all the record associations, and the fact that there are several of these associations makes it rather complicated to trace the breeding of graded stock. We believe, however, that the same rule will hold as with the Clydesdales, and where the stallions used are registered in different books, the finally produced pure-bred will be eligible in whatever studbook it is decided to record him or her.

In the matter of keeping records when grading up stock, so far there are no blanks supplied by the breed associations to parties who are endeavoring to breed from grade stock to be registered. Some breeders, however, use the blank forms of application for registration of pure-breds for this purpose, and fill them out from memory or from their diaries. This is an instance where the breed societies could do considerable good work, and we have suggested to the Clydesdale Association that they prepare blanks and circulate rules for the convenience and guidance of farmers who are breeding in line from pure-bred sires. These blanks might contain spaces for the names of the mare, the stallion used, the owners of each, the date of birth of the progeny, and any other data that might be required. These breeding certificates might also be supplied whenever a mare changed ownership, and should have a blank for transfer certificate. Such a system would



Red Sahib.

First-prize hunter sire, International Show, Olympia, 1907.

HACKNEYS AT THE ROYAL.

The Hackney classes at the Royal Show, says the Live-stock Journal, were replete with specimens of the highest quality, albeit one animal, the Olympia champion stallion, Sir Humphrey, was not entered, which was to be regretted. Championships fell to Copmanthorpe Performer and District Maid, respectively, but in the case of the latter Olympia form was upset, for Lively Beeswing, the heroine of a fortnight ago, had to give way to the senior mare. Those who watched the meeting of the pair will long recall it as one of the finest battles seen between mares in the Hackney ring. A referee alone settled the question in favor of District Maid, who perhaps was more happy on the heavy turf. There can be no denying the fact that Sir Walter Gilbey, Mr. R. P. Evans and the Messrs. Hall just now have between them a group of animals which will for a long time maintain the prestige of the British Hackney.

District Maid, shown by Mr. Evans, is a chestnut six-year-old daughter of Rosador, and Lively Beeswing is a chestnut two-year-old filly sired by Royal Danegelt, and shown by Sir Walter Gilbey. Copmanthorpe Performer, the champion stallion, is a three-year-old chestnut, by Garton Duke of Connaught, shown by Messrs. Hall; and the reserve number, Gartonius, a chestnut three-year-old son of Garton Duke of Connaught, was bred and shown by Mr. Evans.

J. E. Oxy, Wellington Co., Ont.—We acknowledge, with thanks, the premium hand-bag received. We were very much pleased with it, and will gladly get more subscribers, if possible. Wishing your valuable paper the success it deserves.

result, in time, in increasing the value of high-grade mares, and in adding many new names to the list of registered stock. We believe this is a phase of breeding operations that should be endorsed, and would be glad to publish expressions of opinion upon it.

AUTOMANIACS.

Instant death, with a broken neck, a boy with both legs broken and skull crushed, a horse with his legs torn off, and three injured men besides—all in an instant. This is the pen-picture of an automobile accident, entailing the death of a friend's son, as contributed to the Horseman and Stockman by M. T. Grattan, of Minnesota. "We condemn," he says, "the anarchist and his bomb, which could do no worse, and tolerate the automaniac. Through this toleration, over a thousand people were crushed, maimed and killed in the United States alone last year. The ratio for this year has more than doubled, and no daily that prints the news—some suppress it—fails to chronicle auto casualties in every issue, many of them heartrending in their horrible details. This will continue until the people rise in their might and confine them to their own right of way.

"Such a menace are they to public safety that no other question equals in importance to-day the vital problem of self-preservation which they impose upon every living thing that ventures upon the highway. Not only this, but their use makes men effeminate and women neurotic. The man who is a master of a horse makes a good soldier, a statesman, a great divine. Washington, Jackson, Grant, Roosevelt, were soldiers, statesmen and horsemen.

"John Wesley and Peter Cartwright built up a church on horseback. They had the many virtues, the virile power of manly men who loved God, mankind, and a horse. What will the auto do for the nation in the wars that are sure to come? Then, one man who can ride a horse across country without fatigue and shoot straight, will be worth more than a score of automaniacs, who, humped and goggled, will be confined to the macadam where it is not torn up, and eventually have to take to their weak, unused legs across the fields, an easy prey to mounted infantry.

"When upon earth, the Herald taught kindness to children and animals. Needless pain, needless suffering, inflicted upon the helpless or the weak, was no part of His creed. The auto maims and kills every day in the year, takes that which no law save that of self-defense can justify a man in taking, takes that which cannot be restored, and the plea of accident is not tenable; for every man who steps into one knows what they have done and what they are liable to do when run upon the highway.

"Despite all the sophistry of the tools and agents of the manufacturers lobbying against just laws, the fact remains that those who run them over dangerous roads, placing the lives of people in jeopardy, are murderers at heart, and their apologists are worse."

A little extreme, perhaps, but otherwise not far wrong.

CLYDESDALE REGISTRATION.

A comparative statement, issued by the Accountant of the National Live-stock Records at Ottawa, shows that the fees received for registration of Clydesdales in the first six months of 1907 considerably exceed those of the whole of 1906. And, in addition to pedigrees for which fees have already been received, there are in the office at the present time, received before the first of July, Scotch certificates which will cost at least \$1,000 to record. This statement indicates very keen interest in the breeding of heavy-draft horses, as a result of the active demand and high prices prevailing for that class of stock.

The statement that dry bran has a constipating effect upon a horse's bowels is wrong, as bran in no wise possesses a constipating action. It is an exceedingly wholesome food for horses, and very palatable to them. It is a particularly useful and suitable foodstuff for young horse stock, containing, as it does, a large percentage of mineral matter, which last is so essential to the proper development of the bones in growing stock. When mixed in water and fed in the form of a mash, bran, of course, has a laxative effect on a horse's bowels, and bran mashes are invaluable in the stable on this account.

THE CLYDESDALE RULES DEFENDED.

Editor "The Farmer's Advocate":

I have once more carefully read Horseman's letter, as published in your last issue, upon "The Clydesdale Rules," and my only object in answering it is his direct appeal to either the mover or seconder to explain certain questions asked by him, not, however, with much hope of convincing him that the amended rule, as carried at the called meeting on May 23rd last, is in the Clydesdale interests of Canada.

Kindly turn up the issue of July 4th, when I may be allowed to say, in answer to question 1, that it was the Canadian Clydesdale people running their own business to suit themselves, and if the Scottish authorities consider it advantageous to continue their rule that "No female shall be numbered until she has produced a foal," we must remember that is their own business, however lacking in "sense" it may appear to Canadians.

His second question seems to lack point and force, as anyone could readily see, if the standard was to be raised at all, there must be a date to commence, and that was made July 1st, 1907.

As he continues to write, his third question reveals more fully his sinister motives, and in answer to it I quote the amendment to Rule of Entry No. 1, as carried at the called meeting of May 23rd, 1907: "Imported Clydesdales, males and females, recorded and bearing registration numbers in the Clydesdale Studbook of Great Britain and Ireland, whose sires and dams, together with their sires and dams, are also recorded and bear registration numbers in said Studbook, shall be accepted for registration in the Clydesdale Studbook of Canada, and that this amendment shall come into force on the first day of July, 1907." Where does he find "will be accepted"? The amended rule says "shall be accepted,"—surely imperative enough for anyone, and at the same time difficult to have "some hidden object."

In answering question four, would ask you to read carefully the amended rule, as given in full in answering question three, and I am willing to leave the issue with "common people."

In closing his letter, everything Scottish or American appeals to his judgment in preference to anything Canadian. However, this is his business, not mine, and, in closing, I may further say that I am willing my every act shall be as closely scrutinized as possible, and am then willing to leave the verdict upon my action in moving the amendment to the Clydesdale people of Canada, who have always honored me with a seat on the Board since the inception of the Canadian Clydesdale Association. Mr. John Bright, the seconder, can take care of himself.

WM. SMITH,

Ontario County, Ont.

TROTTING-HORSE BREEDERS AND EXHIBITIONS.

The Western Horseman has an article urging the American Trotting Register Association to distribute a few special prizes for Standard-bred horses at leading State fairs, and likewise calling upon breeders of trotting horses, even, if necessary, without special inducements, to devote more attention to the matter of show-ring exhibits. Draft and imported coach horses, it says, win public favor because of their showing at the exhibitions. "On the other hand, owing to the general lack of interest in the matter by those who should be trotting-breed public-favor promoters, the average show-ring trotter is a finely-drawn, coat-burnt, booted-up track-trotter or an everyday road horse, which is entered merely to 'hold a stall.' Fine feathers may never make a fine bird, but a crow all 'togged up' in the plumage of the 'Bird of Paradise' would have a lot of admirers. Fat and a shiny coat cover a multitude of homely angles in many imported heavy-harness horses, and the lack of these makes many a high-class trotting-bred horse look cheap."

As to the desirability of this, there is no room for question. Greater attention to exhibition would tend to an improvement of the trotting-bred horse in point of conformation, style and substance. It would help to overcome the evil effects of the placing of such exaggerated emphasis upon speed, and assist in the evolution of an American type of coach horse. It might not improve the Standard-bred as a racing machine, but it would stimulate the breeding of a more useful kind of horse.

THE MOST UP-TO-DATE AND RELIABLE.

I am a new reader of your invaluable paper, and heartily endorse it as being the most up-to-date and reliable magazine devoted to the interest of farmers. For the brief period I have been reading it, I can recommend it to all wide-awake farmers of Ontario.

C. H. RIELLY,

Wellington Co., Ont.

LIVE STOCK.

OUR SCOTTISH LETTER.

LINCOLNSHIRE AND THE ROYAL SHOW.

Once more I write a Scots letter in England. This time my theme is chiefly the Royal Show at Lincoln, technically known as the sixty-eighth country meeting of the premium Agricultural Society in the Old Country. Lincoln was once before visited by the Royal, viz., in 1854, and it is interesting to learn that the Mayor who then represented the corporation in welcoming the Royal to this "Cathedral City" still survives, and for many years has held office as Town Clerk. Lincoln is a great agricultural center. Not so extensive as Yorkshire in respect of acreage, this County, which lies between the Humber and the Wash, excels Yorkshire in respect of the number and variety of its agricultural interests. On the whole, it may be characterized as the leading agricultural county in England. It gives name to a distinct and highly-valuable breed of sheep, the Lincolns; it claims a variety, if not a distinct breed of cattle, the Lincoln Reds; and it may be left in undisputed possession of a breed of pigs, the Lincoln curly-coated Large Whites—enormous brutes, which are fed to great weights, but they who in these days eat the pork, I envy not. I am told it is chiefly consumed by the farmer laborers. The head man on a farm is allowed 30 stones, or 420 pounds, per annum of this pork for every unmarried workman on the farm whom he feeds. It is well that these young fellows, we presume, have lively digestive organs, or they might find themselves hard put to it in the effort to consume victual of this description. The curly-coat is a curious survival, and one wonders whether the bristles may not have a value of their own. The Lincoln sheep are favorites in the Argentine, where, crossed with or on the Merino, they produce a splendid class of wool, for which there is an increasing demand. As mutton-producers of quality, they would not take a high place, but on account of the peculiar lustre of their wool, which it does not seem possible to perpetuate successfully far outside of their native district, they are at present an easy first among the ovine races of England in respect of individual values. Nearly all the Lincoln sheep-breeders are also breeders of Shorthorn cattle, either of the Coates' Herdbook orthodox variety, or of the Lincoln Red sub-variety. If anyone inquires, "What is a Lincoln Red?" I would answer, "Any whole-colored red registered in Coates' Herdbook, if of a milking strain, and all the reds reared in Lincolnshire, and recognized as of the Lincoln Red variety by the Society charged with the protection and promotion of the interests of those who own these cattle." My impression is that Lincoln Reds are simply Shorthorns whose early pedigrees and history were not recorded, bred true to one color and type in the great county from which they derive their name. Briefly, it may be put: All red Shorthorns may be classed as Lincoln Reds, but all recognized Lincoln Reds would not be recognized as Shorthorns of orthodox pedigree. They are very good cattle, and find keen champions in the brothers Chatterton, of Stenigot, Lincoln, and Mr. John Evens, Burton, Lincoln. Mr. Evens is one of the best farmers in England. He has brought the Lincoln Reds to a high state of perfection as dairy cattle, and to-day (27th June) it is announced that he has been awarded the £60 prize of the Royal Agricultural Society for the best-managed farm in Lincolnshire. This is a magnificent triumph, and has been well earned, with the hearty goodwill of his many friends and neighbors. To-day, at the show-yard sale, the first-prize Lincoln Red two-year-old bull, owned by Mr. Chatterton, was withdrawn, at 130 gs. A much larger sum, 700 gs., was paid for the first-prize two-year-old Shorthorn bull, Rosedale Diamond, calved on 23rd September, 1905, and offered by his breeder, Mr. John Handley, Greenhead, Milnthorpe, Westmoreland. This is a dark-roan, which won first at the Royal Dublin Spring Show. He is destined for the Argentine. The first-prize yearling, Hayle Viceroy, bred by Mr. Hoskens, in Cornwall, and got by the Scots-bred bull, Janissary, made 610 gs., and we suspect his destination is the Argentine, also. The Lincoln Reds were selling well, but when a well-bred Shorthorn of the orthodox order, likely to stand the tuberculin test, appeared on the scene, the agents for the Argentine did not waste much time in bidding him up to phenomenal figures. Two other two-year-old bulls made 400 gs. and 350 gs., respectively. There was a slow demand for normal.

Now about the show itself, as an exhibition of stock. I begin to think that I must be getting old, for I have been at every show of the Royal since 1879, inclusive, with the exception of the Derby Show of 1881. This is my twenty-seventh Royal Show, and I do not think I ever saw a better display of British stock, not even at the Jubilee Show, at Windsor, in 1889. Numbers may have been greater in some sections than at this Lincoln meeting, but taking quality and

numbers together, there has never been anything to beat Lincoln, 1907.

Shorthorns easily held the place of honor, alike for numbers and merit. Shire horses were poorly represented, at which fact I am greatly surprised, as in the past, Lawrence Drew got some of his best mares at Horncastle and Lincoln fairs. It is not too much to say that the best friends of the Shire could not but regret the appearance made by their favorites this week. There was hardly a good Shire animal in the whole show. A few mares would have passed muster, and there was a dark-brown horse getting a ticket of secondary value, but it may safely be affirmed that the Canadian contingent, who are somewhat numerous here, saw nothing at all to wean them from their Clydesdale preference. Only 26 Clydesdales appeared, but there was scarcely an inferior animal in the bunch. The championship for males went to Messrs. A. & W. Montgomery's first-prize two-year-old, Diplomat; and for females, to Mr. J. Ernest Kerr's Cawdor-cup champion mare, Pyrene. The former is by the unbeaten Everlasting, and the latter by his sire, Baron's Pride. Mr. W. S. Parks' Glasgow premium horse, Clan Forbes, by his noted Royal Chattan, was first-prize three-year-old, and the Messrs. Montgomery showed a capital yearling colt by Everlasting, which got first. He was bred by the well-known breeder of Shorthorns, Mr. James Merson, Craigwillie, Huntly. This is a great handsome gay colt, which may be further heard of. Pyrene had excellent company in the female section. The reserve female champion was the first-prize two-year-old filly, Silver Fern, owned by the Seaham Harbor Stud, Ltd.; and got by their great horse, Silver Cup. This is a big, handsome filly, with good feet and legs. The first-prize three-year-old filly is Mr. H. B. Marshall's gay big mare, Baron's Brilliant, which last year was first at the H. & A. S., at Peebles. Pyrene, I should say, is nursing a big, growthy filly foal by Royal Favorite.

There is a fair show of Suffolk Punches, but, outside of their own county, these whole-colored chestnuts, with their great bodies and relatively weak legs, do not attract much attention. Sir Cuthbert Quilter, Bart., Bawdsey Manor, Woodbridge, is showing a team of four Suffolk geldings. They are admirably matched and well handled, but are outclassed by Armour & Co.'s team of six grays from Chicago, which fairly capture the field. They are understood to be mainly of Percheron breeding, or crosses between Percheron sires and Shire or Clyde mares, but one is said to be a pure-bred Clydesdale. They are certainly a remarkable team of draft horses.

Reverting again to the cattle, Shorthorns, all told, numbered no less than 350 entries. Two classes were provided for yearling bulls, and an equal number for two-year-old bulls. The dividing line was 30th June in each year. The champion bull was Mr. F. Miller's sweet, level, four-year-old, Linksfield Champion, which has now been champion of the three kingdoms. He was bred by Colonel Johnston, Linksfield, Elgin, Scotland, and his sire was the Cruickshank bull, Scottish Prince. He is marvellously level in flesh, and singularly straight in his lines, as well as singularly free from patchiness at the tail-root. He is gay and handsome, and if there has been seen a longer and bigger champion, there never has been seen one of truer quality or sweeter in all his points. The reserve was His Majesty the King's first-prize two-year-old, Royal Windsor, which won in the older section of the two-year-old class. He was second at the Royal a year ago, and is a wonderfully true, well-colored two-year-old. The King was also first with a yearling heifer named Marjorie, by the bull, Royal Chieftain. This is a wonderfully perfect roan heifer, with almost ideal lines, and so true that, had she been awarded the female championship, no one would have seriously called the decision in question. Rather a notable thing happened in the older class of bulls. Both the second and third, Sir Richard P. Cooper's white bull, Meteor, and Mr. John C. Toppin's roan bull, Moonstone, respectively, were bred in Wales by Mr. Morgan-Richardson, and got by the stock bull Moonlight 75110. This is a sufficiently notable achievement in a class of outstanding merit. The first-prize winners in the two two-year-old classes were, respectively, the King's Royal Windsor, calved March 27th, and Mr. Handley's Rosedale Diamond, calved 23rd September. Mr. Robert Chatterton, Stenigot, had second in the older class with the big roan, Avondale, bred at Stonytown, and a prominent winner in Scotland last year. The second in the younger class was the Duke of Northumberland's roan, Alnwick Favorite, got by the celebrated Bapton Favorite, the stock bull at Uppermill, which was sold for 1,200 gs., but did not leave the country. He has been for one or two seasons at Collynie, after leaving Alnwick. This Alnwick Favorite is a great breeding-like bull. The judges differed as to whether he or Rosedale Diamond should be put first, and the umpire gave the honors to Mr. Handley's bull. In the older class of bulls calved in 1906, in which Hayle Viceroy won, there were over sixty entries, and the younger class, calved on or after 1st July, contained about one-half

that number. It was led by Mr. Herbert Samuel Leon's Bletchley King, an uncommonly nice roan, by Silver Mint; Mr. Deane Willis was second with a beautiful little bull named Bapton Forester.

I am not sure that the Shorthorn females were better than the males. The championship went to Lord Calthorpe, Elvetham Park, Winchfield, Hants, for his six-year-old cow, Sweetheart, bred at the Royal Farms, Windsor, and got by the great 800-gs. bull, Royal Duke. This is an ideal Shorthorn cow. The reserve female champion was Mr. Robert Taylor's Pithvie Rosebud 2nd, a lovely dark roan, which won first in a large class of two-year-old heifers. Had she been given champion honors, many would have been satisfied. Mr. Taylor also showed his champion cow, Donside Princess. She was placed third, Mr. Geo. Harrison coming in between her and Sweetheart with his young sow, Towy Princess. There were about fifty entries of yearling heifers, the class led by the King's Marjorie. The second was a heifer bred at Ruddington, and got by that strikingly gay and handsome bull, King Christian of Denmark.

The class of dairy Shorthorn cows and heifers, registered in Coates' Herdbook, was led by Mr. C. R. W. Adeane's Priceless Princess, a red dairy cow of an invaluable type. She championed her section, and the judge resolutely pressed her claims for high regard in the supreme championship competition. Her owner, Mr. Adeane, has a farm at Babraham Hall, Cambridge, where he makes a specialty of this type of Shorthorn.

One of the most spirited exhibitors of stock in Scotland is Mr. J. Ernest Kerr, of Harviestown, Dollar. He has a fine herd of Aberdeen-Angus cattle, a first-class stud of Clydesdale



Arthur S. Gibson,

Nottingham, England, who judged Shorthorns at the Lincoln Royal, and Clydesdales, Shires and Shorthorns at Winnipeg Exhibition, 1907.

horses, a noted stud of Hackney ponies, and a rising flock of Border-Leicester sheep. At the Royal Lincoln, he won the A.-A. breed championship with his unbeaten cow, Juana Erica, the Clydesdale female championship with Pyrene, and was first for Border-Leicester gimmers in a class in which several of the leading breeders in Scotland had entries. The male championship of the A.-A. breed was secured by the famous bull Idelamere, bred and owned by Mr. T. H. Bainbridge, Eshott, Newcastle-on-Tyne. This bull was first in his class. Mr. John Ritchie Findlay, of Aberlour, Banffshire, had two first prizes in the A.-A. section, his representatives being the two-year-old bull Blizzard, and the two-year-old heifer, Prize. Mr. R. Wylie Hill, Baithayock, Perth, had second with his big cow, Bartonina of Glamis, and first with a home-bred yearling bull, Biota.

Galloways always make a good show at the Royal. This year was no exception to the rule. The male championship went to Mr. John Cunningham, Tarbreoch, Dalbeattie, for his great bull, Chancellor of Ballyboley, whose stock were also well forward in the prize-list. The female championship went to Messrs. Biggar & Sons, Dalbeattie, for their cow, Flora Macdonald. Mr. Andrew Montgomery, of Netherhall, Castle-Douglas, showed three splendid bull stirks, which got first, third and fourth. The first was got by Chancellor of Ballyboley. Mr. Thomas Graham, Marchfield, Dumfries, had second in this class with a very promising youngster bred at Drumlanrig. Mr. Fox Brockbank, The Proft, Kirksanton, was first with his unbeaten two-year-old

heifer, Tasmine of Knockstocks. She was reserve champion, and her dam, Knockstocks Jessie, was H. & A. S. Galloway champion two years ago, when owned by Mr. A. B. Matthews.

Ayrshires were well exhibited in respect of merit. Mr. James Howie, Hillhouse, Kilmarnock, had the lion's share of the prizes for bulls, and Mr. Andrew Mitchell, Barcheskie, Kirkcudbright, had easily the best of it with cows. They were of good dairy type. Mr. Howie showed good specimens in the milk-yield classes. This type of Ayrshire is rapidly coming to its own.

Highland cattle were splendidly represented by exhibits from Mr. Bullough, Megunnie Castle, Aberfeldy, and Mr. D. A. Stewart, Ensay, Portrie, as well as others.

The purely English breeds of cattle chiefly in evidence were the Red Polled and Herefords, but Shorthorns and Lincoln Reds fairly snowed under all the other breeds.

"SCOTLAND YET."

THE SHEEP QUARANTINE.

Editor "The Farmer's Advocate":

In reply to your letter of July 3rd, regarding a press despatch, to the effect that the period of quarantine on imported sheep has been doubled, I would say that, while a slight change has been made in the regulations governing the importation of sheep from countries other than the United States, Newfoundland and Mexico, the said change involves only a possible increase of three or four days, while in some cases there will be no increase at all. Under the regulations previously in force, a quarantine of fifteen days, reckoned from the date of landing, was enforced upon all sheep and goats imported from Europe. Under the new regulations, a quarantine of thirty days is imposed, but said period of quarantine is now reckoned from the date of clearance of the vessel carrying the animals from the port at which they were embarked. As the average freight steamer takes from ten to fourteen days in making the trip from port to port, the difference from the old conditions is, as you will see, very slight. The change is accounted for in this way: The period of quarantine on hogs imported from the United States was increased from fifteen to thirty days. As hog cholera, or, as it is called there, "swine fever," exists to a serious extent in Great Britain, it was felt that it would be only fair to impose a similar period of quarantine on British swine, and this was done by fixing the period for the latter at thirty days, to be reckoned from the date of the clearance of the vessel carrying them, and in order to simplify matters both for the public and for the officials of the Department, it was thought best to apply an exactly similar rule to importations of sheep and goats, especially in view of the fact, above stated, that the difference from the regulations previously existing would be very slight.

J. G. RUTHERFORD,
Veterinary Director-General.

FEED-LOT VS. THE DAIRY.

Editor "The Farmer's Advocate":

I am writing to thank you for your editorial and the letters of Messrs. Rice and Day, in a recent issue, on the comparative future prospects of dairying and beef-raising for the young farmer. Such letters, from men who are unquestionably in a position to judge, cannot fail to be of great benefit. In my own opinion, your comment and the letter of Prof. Day sum up the probable situation very impartially. Mr. Rice plainly inclines to the side of dairying, but we can scarcely blame him, since he has himself made such a great success of that line. In my own consideration of the position, there were two or three factors in the decision of the prophecy:

1st. Our market for beef across the Atlantic depends somewhat on the quality we raise, freight rates, etc. The trend of trade is to improve both these conditions.

2nd. The rapidly-growing population of our West will consume more and more beef; but, of course, the above two conditions will apply also to dairy products, so that the balance bids fair to be maintained.

3rd. But the hardest blow to beef-raising will be, I think, the fact that, as the population becomes denser, the farms in the West will grow smaller, and beef-raising on large ranches will not be as general. The cattle will be handled in smaller lots, and the care and feed of them become more expensive. This condition of things, however, may be better for the beef-raiser in the Eastern Provinces, since beef will necessarily become higher, and not raised at a loss in the East, as it is now.

R. J. MESSENGER.

With this issue is included the index to articles and illustrations in "The Farmer's Advocate" from January 3rd to June 27th, 1907. Subscribers will do well to clip out the six pages containing the index, stitch them together, and attach to either the January 3rd or the June 27th number. It will come in handy when a certain piece of information is wanted in a hurry.

SHEEP AND SWINE AT THE ROYAL SHOW.
SHEEP.

It can be said of the Lincoln Royal that probably never before at any previous Royal has there been a more representative entry of British sheep, no less than 23 distinct breeds finding a place in the schedule, which commenced with the Oxford Down breed, which was represented by a wonderfully level and uniform entry, Messrs. J. T. Hobbs, J. Horlick, G. Adams and H. W. Stilgoe being the leading winners.

The Shropshires made an entry creditable alike to the breeders and the breed, of remarkably uniform and typical appearance, with splendid type and character. Mr. M. Williams won in the yearling ram class with one of the finest specimens of the breed we have seen for some time. Sir R. Cooper's pen of five rams this age were particularly well matched. A notable stud ram, too, was Mr. T. S. Minton's first-prize aged ram. Sir R. Cooper was unbeatable in the classes for ram lambs, ewe lambs and shearling ewes, his entries being of specially high quality.

The Southdowns, sometimes termed the royal breed of mutton sheep, were most typically represented. The champion honors for males went to Mr. W. M. Cazalet, and that for females to Mr. J. Colman. These, together with H. M. the King, the Duke of Devonshire, and the Executors of Colonel H. McCalmont, were principal winners in very strong competition.

The Hampshire Downs, that early-maturity breed, fully proved their right to this distinctive title. Mr. James Flower was first in each class save that for yearling ewes, in which Sir W. G. Pearce took premier honors. Messrs. T. F. Buxton, H. C. Stephens and the Marquis of Winchester were also prominently successful.

A small but thoroughly typical entry represented the Suffolk breed, Mr. H. W. Smith being first for each class except the yearling ewes. Here Mr. R. Barclay was the leader. These two exhibitors, together with Messrs. S. R. Sherwood and D. A. Green, were the competitors.

The Dorset Horn breed, with a fine, representative entry, owned by, amongst others, Messrs. F. A. Hambro, W. R. Flower, James Hatrill and S. J. Merson, formed an attractive feature of the section, the above being the chief winners.

The Lincoln breed, with its unique, unequal and record exhibit, must be referred to in somewhat more detail, for never before has so large a collection of this breed been seen at any show, nor has there ever been so large a number of competitors. The two-shear ram class had for its winner Mr. F. Miller's champion ram (bred at Nocton Heath), Mr. H. Dudding taking the second prize in the class with a very good one. The latter exhibitor, in what some are pleased to term the strongest class of yearling rams seen for many a day, took first with a ram of special high merit, Mr. Tom Caswell being second. The class for pens of five yearling rams was one the like of which has never been seen before in the Royal show-yard, for there was no less than 160 sheep competing, a sight that was the most striking feature in connection with this most unique exhibit, the first honors therein going to Mr. Dudding, a great success, and one thoroughly well deserved by reason of the merits of this winning sheep; Mr. John Pears was second. In the ram lambs and ewe lambs class, Mr. Dudding again led the way with most typical sheep, Messrs. Dean & Son taking second place. In the class for yearling ewes, Mr. C. F. Howard was the winner, with a grand pen, and this exhibitor, one of the youngest breeders, had the great honor to be the owner of both first and second prize pens in the class for yearling ewes in full fleece, a class in which no less than 19 pens competed. The final class of this unique exhibition of Lincoln long-wool sheep was for the best group, and here Mr. Dudding led the way.

The Leicester sheep were typically represented with choice specimens of the breed. Messrs. G. H. Harrison and E. F. Jordan were principal winners for yearling sheep, and the Messrs. Simpson in the classes for lambs.

Messrs. W. T. Garne & Son were the principal winners in small but good classes of Cotswold sheep, and Messrs. R. Taylor, D. Hulme and J. F. Kerr led in good classes of Border Leicester sheep. Never before at the Royal have the Kent or Romney Marsh breed been so largely represented, nor has its exhibits been so good in merit, as upon the present occasion, Messrs. C. File, J. B. Palmer and W. Millen being the principal winners.

The Executors of T. Willis and Lord Henry Bentinck owned the winners in the very typical classes of the Wensleydale breed. Mr. F. White owned the prize-winning Devon long-wooled sheep; Messrs. H. Fairweather and J. Stooke those of the South Devon breed.

PIGS.

The entry in this section was one of the largest we have seen at the Royal Show for a long time, and it can be said, also, that the competition in the various classes was notably keen. For the first time, the Lancashire entry coated

pigs had full classification at this show. The entry was of specially good merit—a grand one, in fact—and the champion boar, owned by Mr. J. Ward, made 52 guineas. The champion sow was owned by Mr. H. Caudwell, and these gentlemen, together with Messrs. T. Ward and H. Caudwell, were the principal winners.

A particularly good entry of Large Whites (Yorkshires) faced the judges. Mr. C. Spencer won first in boars born in 1905 or 1906 with Hollywell Czech 2nd. Mr. R. M. Knowles won the champion prize for the best animal in the class with Colston Lass 13th, born in 1904. D. R. Daybell was first and third for boars born in 1907, second going to R. R. Rothwell. Sir Gilbert Greenall was first and second for yearling sows with Walton Lady Alice 23rd and Walton Sunlight 12th. The Earl of Ellesmere was first for sows of 1907.

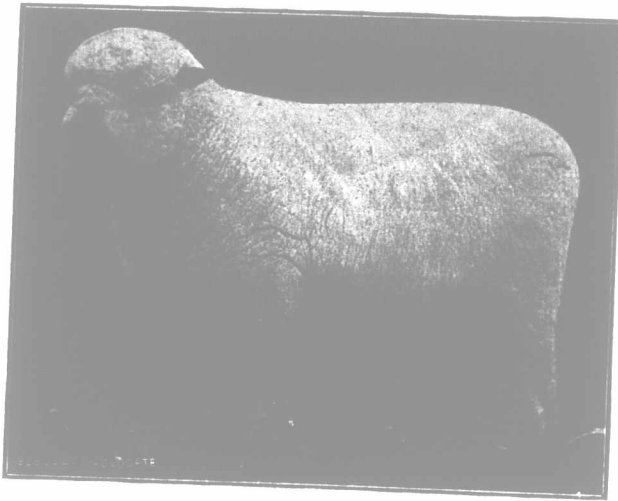
A very fine entry, and typical of its breed, represented the Tamworths, the champion prize for which went to Messrs. F. W. Gilbert & Co. Sir Peter C. Walker and R. Ibbotson were the other leading winners.

A grand lot of Berkshires made up a specially large and good entry of the breed, Mr. G. T. Inman winning first prize in the old-boar class (farrowed in 1905 or 1906), and taking with this animal, Highmoor Curio, champion honors for males. The Duchess of Devonshire, with Polegate Dorcas 2nd, took first in aged sows, and champion honors for females. Mr. Godfrey Chetwynd was first and second for boars and sows of 1907, and Lord Calthorpe first for sows of 1906. Other winners were Russel Swanwick, N. Benjafield and R. W. Hudson. W. W. C.

RECOLLECTIONS OF A SHEPHERD.

(Continued.)

My recollections in this chapter are of recent date, and relate to the rush of letters in last week's issue of "The Farmer's Advocate" in defense and eulogy of "man's best friend," the dog, which would appear to verify my former statement that the friends of the sheep are in a hopeless minority in this glorious country. "The home of the brave and the free." The dog and his friends claim the right of way, and get it, and those commonplace farm animals, the horse, the cow, the sheep, and "the gentleman that pays the rent," must keep off the road and off other people's property, and play second fiddle to his honor the dog. And although the writer of the letter so severely criticised freely admitted that there are some good dogs, deserving of respect, and said not a word against the well-bred and well-behaved Collie who stays at home and minds his own business; yet, because he confessed that, for the protection of his flock, he had quietly dispatched a few sneaking trespassers of the species, he is



Shropshire Shearling Ram.

First at Bath & West Show, 1907. Owned by M. Williams, Wolverhampton.

anathematized, Scripture references are hurled at him, and he is consigned to the everlasting bow-wows, and is even held in derision as the hero of a tragedy in which a slinking half-breed, caught in the act of stealing the children's bread while they slept, was treated to a dose of lead and given a private burial—a tragedy in which the writer played no part, and claimed no such distinction, though he was one of the children whose bread was stolen. There is poetry for departed dogs and sympathy for their bereaved owners, but not a word of commiseration for the mangled sheep for whose protection the writer was pleading, or for their owners, whose flocks, the result of years of patient care and expenditure, have been decimated in a night by their prowling enemies. If the shepherd had been aiming to make out the worst case against dogs, everybody knows that, for one instance where a human life has been saved, a hundred have been destroyed by their work, directly or indirectly. The difference is that in the former cases a monument is erected,

and in the others a veil is drawn. And if one were disposed to meet his Scripture-reference friend with quotations from that source, anyone who has read those books knows that the company they are there bracketed with is far from being complimentary to "man's best friend," so called. The "Shepherd" has merely sought to show up the selfishness and indifference of the men who have no sheep, but keep dogs, most of them entirely useless and many dangerous, in being unwilling to pay a tax of a dollar a year to provide for remuneration to flock-owners for losses sustained through destruction of their property by dogs. However, this is too hot a subject for discussion in the "dog days," when short sermons are in season, and I seek the shade of a weeping-willow tree to ruminate over the possible consequences of the careless reading of critics who would make me "the hero of a bulldog tragedy." It has been said some men are born great, some achieve greatness, while others have greatness thrust upon them. If I am in either class, I think I must be in the last named. But even in hot weather, a joke is not out of season, and not inappropriate just here is one that appeared in a late issue of "The Farmer's Advocate," said to have been told at his own expense by an Irishman who had trained his watch-dog to bark long and furiously at tramps, but had also taught him to carry parcels in his mouth; and who, hearing a disturbance in his house one night, struck a light and discovered his pupil carrying a lantern for burglars. "Ochone ma chree," some trained dogs, like some educated fools of the genus homo, are easily bribed by the gift of office.

"SHEPHERD."

CHEAP VENTILATION.

Editor "The Farmer's Advocate":

You asked for my experience with the muslin-curtain ventilator. I used it on our chicken-house the winter before last, and it got rid of moisture so well that I tried it on our sheep barn this past year. We fatten winter lambs, keeping them in small pens 16 feet by 8 feet—30 lambs to a pen; so, you see, are very crowded in the barn. In cold weather the barn used to be full of steam, the air very damp, and the sheep wet. I put on 120 square feet of common 6-cent factory cotton on one side of a barn 34 ft. by 40 ft. It cleared out the moisture very well, made the building lighter and the air purer. It seemed a great deal nicer on the side of the barn near the muslin. When we sat to watch the sheep, we would sit on that side because it was pleasanter, and what we like an animal likes. There is no need of anyone having impure air in his barn when one can ventilate so cheaply.

Batavia, N. Y.

GILBERT A. PROLE.

THE FARM.

THE FORCE OF PUBLIC OPINION.

"The use of a split-log drag in a community has a surprising influence on public sentiment," writes D. Ward King, in his treatise, "The Missouri Idea." "Ordinarily, a community despairs of road improvement. They know of nothing short of macadam, at from \$1,500 to \$3,000 per mile, and this to them seems an impossibility. While this frame of mind exists, the average man will look at the mudhole near the front gate and wonder why the overseer does not come to 'fix' it. But when dragging is taken up by a neighborhood, that same mudhole becomes a personal matter—the owner of the front gate feels responsibility for it and the mudhole disappears. Occasionally a dilatory or selfish man will refuse to drag; but as sentiment rises or intensifies, and his piece of road attracts attention by its contrast with adjacent roads, he finds it more and more difficult to stand out against the displeased glances and insinuating remarks of his neighbors."

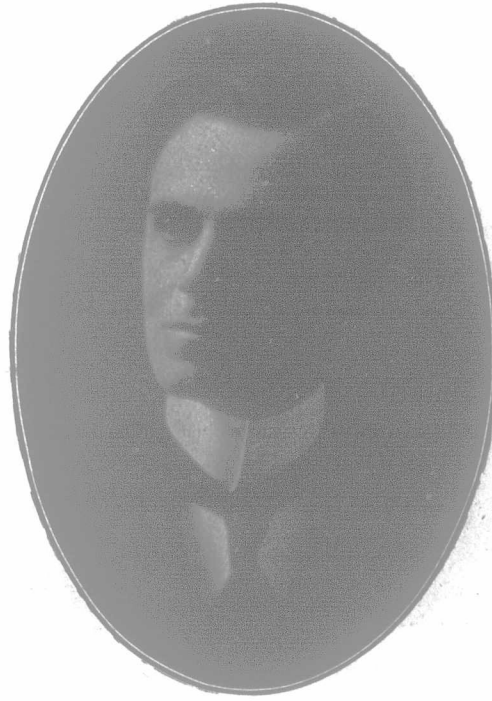
Wallace's Farmer very properly joins issue with a correspondent who has advanced the theory that education must come from the university down. "In our judgment," observes our valued contemporary, "the very reverse is true. The real basis of all the education is the common school, and we shall never have our young people educated as they should be until we work a reform in our entire system of common-school education. The plastic period of human life is not when the boy goes to the college or university, but while he is in the common school. Make their courses of study more intensely practical, and give them teachers in closer touch with the life around them, and the college and university will prosper as they have never done before. We do not minimize the value of the university or of the college, but we plead for the better education of the ninety and nine, rather than the finished education of the one."



F. H. Reed, B. S. A.
Agricultural teacher, Lindsay High School.

graduation, in 1905, he has been putting into practice, on his father's farm, the knowledge gained at Guelph. He goes now as Instructor in Agriculture in the Collegiate Institute at Collingwood, and, knowing the farm conditions in the Counties of Simcoe, Grey and Dufferin, should prove a very useful citizen.

Perth.—Roy Stoves Hamer, B. S. A., of York Co., Ont., goes to Perth. Mr. Hamer was a school teacher before coming to the College. While at the O. A. C. he was Managing Editor of the "Review," and in his final year developed a special aptitude for live stock. He was first at Chicago in the judging of horses, cattle, sheep and swine in 1906, meeting all competitors, and having the highest score of all students from all Colleges in the United States and Canada. He goes to Perth thoroughly prepared for the work which he has undertaken.



R. S. Hamer, B. S. A.
Agricultural teacher, Perth High School.

THE TEACHERS OF AGRICULTURE IN ONTARIO HIGH SCHOOLS.

We have pleasure in presenting herewith a few biographical notes, illustrated with half-tone portraits, of the six young men who have been chosen to teach agricultural classes in six Ontario High Schools, viz., Lindsay, Galt, Collingwood, Perth, Essex, and Morrisburg.

Lindsay.—Francis Henry Reed, B. S. A., of Halton County, will have charge of the Department of Agriculture in the High School at Lindsay. Mr. Reed was a member of the College staff for two years, having been selected by the President of the College to occupy a position on the staff when he had finished but two years of his course. He afterwards resigned his position at the College, and this year completed his Agricultural College Course and secured the degree of B. S. A. Mr. Reed's people have been long interested in pure-bred live stock, two uncles having judged horses from Halifax to Vancouver. Mr. Reed himself has also competed successfully in the students' judging team at Chicago.



R. E. Mortimer, B. S. A.
Agricultural teacher, Collingwood High School.

Essex.—Angus McKenney, B. S. A., comes from Elgin County, Ont. Having been raised on a good farm, to which he expected to return, he has been persuaded to undertake the work in Agriculture in the High School at Essex, near his own home. Mr. McKenney has made a specialty of live stock. He was on the students' judging team at Chicago which won the trophy against all comers, and also was first in his class of twenty-two in the live-stock competition held at the Ontario Agricultural College for a gold medal. He has also worked out some problems in poultry culture which have been useful to Ontario farmers.

Morrisburg.—William Alfred Munro, B. S. A., of Dundas Co., goes to Morrisburg, near his old home. After teaching school for a number of years, Mr. Munro entered Queen's University, where he afterwards took his degree of B. A. He then entered the Ontario Agricultural College, and secured the degree of B. S. A., graduating in 1906. Since that time he has been with the Department of Agriculture at Edmonton, Alberta,

conducting Farmers' Institute meetings and short courses in the judging of grasses and live stock. Mr. Munro knows his home conditions well, and should be successful in the teaching of agriculture in Morrisburg Collegiate.

A FUNGUS DISEASE OF CLOVER.

The farmers of Tennessee have for a number of years had serious difficulty in raising red clover. The trouble has been gradually increasing, until, within recent years, the crop has had to be almost entirely abandoned in many parts of the State. In 1905, Samuel M. Bain, Botanist, and Samuel H. Essary, Assistant Botanist and Mycologist, of the State Experiment Station, began an investigation, and soon found a new and hitherto undescribed fungus disease, belonging to a class generally known as anthracnose. They give it the specific name of Colletotrichum trifolii. This disease was found in almost every field visited, and seems to exist in the severest form in the oldest and best farming sections of the State. So far



F. C. Hart, B. S. A.
Agricultural teacher, Galt High School.

Galt.—Frank Cyril Hart, B. S. A., is a Nova Scotian. After serving his apprenticeship on a farm, he entered a High School, and secured his teacher's certificate. After teaching school for five or six years, he came to Ontario and entered the Ontario Agricultural College. By virtue of early farm training and teaching experience, combined with native ability, he was among the first men in his class. Before graduation, he was engaged by the Dominion Forestry Department for work in Manitoba. He comes back to take charge of the Department of Agriculture in the Collegiate Institute at Galt.

Collingwood.—Robert Elmer Mortimer, B. S. A., is the son of a farmer in Dufferin County. He entered the Ontario Agricultural College in 1901, and from the beginning impressed the staff with the practical nature of his early training. Since



A. McKenney, B. S. A.
Agricultural teacher, Essex High School.



Wm. A. Munro, B. A., B. S. A.
Agricultural teacher, Morrisburg High School.

as known, no cultural methods of handling the crop will prevent or even appreciably diminish the ravages of the disease, and it appears to exist on every kind of soil in the State. The same disease also attacks alfalfa, although it is not known to what extent. Alsike clover is almost absolutely immune.

Hope for combating this disease lies in the fact that occasional healthy plants in badly-stricken fields produced, in the second generation, plants which were strikingly resistant to the disease, though, whether this resistance will be maintained to future generations, cannot be foretold with absolute certainty. An effort is being made to propagate disease-resistant plants rapidly, and to secure a supply of seeds from such plants. No such seed, however, is yet ready for distribution.



Barns and Outbuildings of a Large Estanciero and Cattle-breeder, Argentine.

SOMETHING OF AGRICULTURE IN FOREIGN LANDS.

AN ARGENTINA RANCH.

The size of an Argentine estancia or ranch varies from 3,000 to 600,000 acres, the average being about 20,000 acres. The people live very simply, and have little occasion to spend money, almost their only indulgence in the amusement line being the playing of the guitar or mandolin. Nevertheless, they seem contented, and if there is little extravagant living, there is also very little poverty among them.

INFLUENCE OF HEIGHT OF WHEELS UPON DRAFT OF WAGON.

Speaking at a Missouri convention, Professor T. I. Mairs, Assistant Agriculturist at the Missouri Experiment Station, gave the results of tests made at the Station to determine the influence of height of wheels upon draft of wagon. In part, he said:

It has already been demonstrated that wide-tired vehicles, under almost all circumstances, draw lighter than narrow-tired ones, and that their beneficial effects upon roads are very great. Their advantage over narrow-tired vehicles, in hauling feed, spreading manure, and doing general farm work, has long been recognized, and hardly needs to be mentioned.

The chief drawback to the use of the broad-tired wheels has been their unwieldiness. It takes much more room to turn a wagon with a six-inch tire than it does one with a two-inch tire and the same height of wheels, on account of the rim of the wheel coming so much nearer to the wagon bed, while, if the wheels are reduced in size to facilitate turning, the draft is necessarily increased.

To study the effect of height of wheels upon the draft, and discover, if possible, to what extent wheels may be reduced in height without materially increasing the draft, has been the object of some of our experiments.

The test was made with three wagons, and under a variety of conditions. The wagons all had iron wheels, with six-inch tires. The wheels known as "high" were of standard height, viz., 44 inches in front and 56 in the rear, while those known as low were 24 inches in front and 28 inches in rear. The high wheels weighed 692 pounds, the medium ones 510 pounds, and the low ones 292 pounds. The dead weight of the wagons, exclusive of wheels, and including driver and man to work dynamometer, was made the same in each case, about 1,070 pounds.

Then a load of 2,000 pounds was placed upon each wagon, making the total weight as follows: High, 3,762 pounds; medium, 3,580 pounds; low, 3,362 pounds.

It was found that the first two runs over any track drew heavier than later ones, but after the second run the draft was fairly uniform for any one wagon. Therefore, before each test one of the wagons was run over the road four to six times, and the best runs were made in their tracks. On meadows and in fields, a piece of ground of uniform grade was chosen, wide enough so that all the runs could be made without running twice in the same track.

The following are detailed results of tests made:

Dry gravel road, sand about one inch deep, some small, loose stones, ranging in size up to a small hen egg. Length of run, 400 feet:

High wheels, average of two runs, draft 158.9 pounds.

Medium wheels, average of two runs, draft 161.9 pounds.

Low wheels, average of two runs, draft 185.3 pounds.

Advantage in draft of high over medium wheels, 3.0 pounds, or 1.9 per cent.; medium over low wheels, 23.4 pounds, or 14.5 per cent.; and high over low wheels, 26.4 pounds, or 16.6 per cent.

At this rate, the draft required to draw 2,600 pounds on the low wheels would draw 2,290 pounds on the medium wheels, 2,332 on the high ones.

The draft required for 2,000 pounds on the medium wheel would draw 2,038 pounds on the high ones.

Gravel road, up grade of 1 in 44, with about one-half inch wet sand, ground frozen underneath; length of run, 250 feet.

High wheels, average of two runs, draft 231.3 pounds.

Medium wheels, average of two runs, draft 236.5 pounds.

Low wheels, average of two runs, draft 291.0 pounds.

Advantage of high over medium wheels, 5.2 pounds, or 2.2 per cent.; medium over low wheels, 54.5 pounds, or 23.0 per cent.; high over low wheels, 59.7 pounds, or 25.8 per cent.

At this rate, the draft required to draw 2,000 pounds on the low wheels would draw 2,460 pounds on the medium wheels, or 2,516 on the high ones, and the draft required for 2,000 pounds on the medium wheels would draw 2,044 on the high ones.

In cornfields, across rows laid by spring-tooth cultivator, ground dry on top, in good condition for working. In the last cultivation the ground was left as nearly level as possible to leave it, thus the rows afforded no ridges to speak of. Length of run, 400 feet.

High wheels, average of two runs, draft 335.7 pounds.

Medium wheels, average of two runs, draft 360.1 pounds.

Low wheels, average of two runs, draft 445.6 pounds.

Advantage of high over medium wheels, 24.4 pounds, or 7.6 per cent.; medium over low wheels, 85.5 pounds, or 23.7 per cent.; high over low wheels, 109.9 pounds, or 32.7 per cent.

At this rate, the draft required to draw 2,000 pounds on the low wheels would draw 2,476 pounds on the medium wheels, or 2,654 on the high ones; and the draft required for 2,000 pounds on the medium wheels would draw 2,152 on the high ones.

As an average of the twelve runs made under these varying conditions, we have an advantage of the high wheels over the medium ones of 6.8 per cent., and over the low ones of 27.4 per cent., and an advantage of the medium ones over the low ones of 19.6 per cent.

Thus, it is seen that the difference in draft between the high and medium wheels is not great, while that between the medium and low wheels is considerable. The greatest care with which the wheels of the medium height can be turned and loaded and unloaded would more than counteract its increased draft over one with wheels of the normal (highest) height.

In the low-wheeled wagon, while we gained somewhat in convenience of turning and loading, we increased the draft out of proportion. Moreover, another great disadvantage of a wagon with wheels as low as 24 and 28 inches is the increased vibration of the tongue, which is almost, if not quite, as worrying upon the team as the increased draft, and tends to keep the horse's neck sore on top. On the other wagons the vibration was not noticeable.

Taking all things into consideration, including draft, convenience, etc., we believe that the most suitable height for wheels of a farm wagon, especially one with wide tires, is 32.36 inches in front, and 40.44 in the rear.

THE DAIRY.

FROM GUESSLAND TO FACT PASTURE.

The dairy cows of Illinois and Iowa are feeding in Guessland, writes Wilbur J. Fraser, Chief of Dairy Husbandry, University of Illinois, in that piquant and original style which has characterized his several recent communications to the agricultural press. The dairyman simply guesses at the milk they give and the money they make him. The dairyman doesn't guess at the amount of money he receives for it, but counts every penny every time. Then why should he guess at the milk his own cow sells him? But he does right along, and never thinks how unbusinesslike it is. It is a poor rule that will not work both ways.

The only way from Guessland to Fact Pasture, where the dairyman knows the annual production of each, is the way of the scales and the test. There is no other way but to weigh and test the milk of each cow separately. All estimates and guesses miss the mark, and most of them miss it a long ways; they are absolutely unreliable. This is agreed to by all the dairymen who have had practical experience on both sides of this question. This testing brings many surprises to the most experienced dairymen. It is not only the most natural and easy way, but it is absolutely the only way to learn the facts.

While there is but one entrance to Fact Pasture, there are two ways out of it. One is the way to the slaughter-house, and it is astonishing how naturally and how soon the poor producers find this way out of Fact Pasture. At the other side of the pasture is the fine barn and abundant feed of the proper kinds provided by John Thinkwell, who keeps a really high-profit dairy, and has a modern home for himself as well as for his cows. Here the high-producing cows are known and thoroughly appreciated; they go in and out, and find pasture and plenty. And here the poor producers can't stay.

These words are well weighed—and so should be the milk of every dairy cow. "Weighed in the balance and found wanting," will then be said of a thousand times more dairy cows than of old-time kings. So true is the Babcock test, and so badly needed in Illinois, that it may almost be said that its use will soon be a test of the progressive dairyman himself. Science has given a simple and practical and proven test to the dairymen, and now the dairyman, as well as his cow, is "up to" the test.

A FLOATING WHEY TANK.

Discussing the subject of whey tanks at the February meeting of the Michigan Dairymen's Association, one speaker told this story:

"They say there is nothing new under the sun, but I believe I once discovered something new. It was a floating tank, and my friend, Mr. Henry, said, 'I wonder if the calves and pigs float, too?' A new factory had been built in one of the southern counties, and they had put what we would call a cistern into the ground for the whey. The space around the cistern had not been filled in. The morning we visited this factory was right after a big rain, and the water from the eaves and the surrounding ground filled in the hole, and the whey tank was bobbing up and down, full inside and out. The farmers were wading up to it with rubber boots, laying planks on boxes, pumping the whey, putting it into their cans, and going home apparently perfectly satisfied. There was little danger of a man stealing more than his share of whey. Some makers use barrels, and I once asked an operator why he did. He said, 'Well, the farmers steal whey, and so we put each patron's whey into a tank of his own and measure it out for him every day.' I just put my nose over one of those barrels, and it had not been cleaned out, I will guarantee, in three months. You cannot raise good calves on that kind of stuff."

"We seemed to have larger crowds of visitors than ever this year, and, as far as we can tell, there were at least 31,000 people on the grounds during June alone," writes President Creelman, of the Ontario Agricultural College. Considering the backwardness of the season and consequent rush of farm work, this is a most gratifying report, indicating that Ontario farmers are learning to appreciate the institution as time goes on. It pays to take a day off from work now and then, and there is no better place to go than Guelph. One can pick up more useful information there in one day than he can at an exhibition in two.

THE MANITOBA DAIRY SPECIAL.

There have been corn specials and seed-grain specials that have given good results. Why not a dairy special, through those parts of Manitoba especially suited to the dairy industry? The question was asked by the President and staff of the Manitoba Agricultural College, and answered with the assistance of the Canadian Northern Railway. The train pulled out from Winnipeg on Monday, June 24th, and between that time and June 27th, lectures of two hours' duration were given at the towns of Elie, Gladstone, Plumas, Glencairn, Neepawa, Makinak, Swan River, Dauphin, Sifton, Woodlands, Lake Francis, St. Laurent, and Oak Point. Attendance was very encouraging, the car being filled at nearly every point with men and women who had come to learn. Those taking part in the work of demonstration and instruction were: J. J. Golden, Deputy Minister of Agriculture; President Black, of the M. A. C.; Prof. Carson, of the Dairy Department of the College; A. R. Greig; L. A. Gibson, Provincial Inspector of Creameries, and N. J. Kuneman, Inspector of Cheese Factories.

THE CARE OF THE COW.

The actual giving of instruction as to dairy methods fell to the lot of Prof. Carson, who, in clear, forcible style, set the main points before the audiences. He said that never before had dairy prospects in Manitoba been brighter. But there was large room for growth, for this industry, up to the present, had failed to keep pace with the expansion of the Province in other directions. There is not enough butter made to supply the home demand, and practically none is exported. The average cow in Manitoba produces only 2,500 pounds of milk in a year, whereas the proper cow, given the proper care, will produce from 5,000 to 6,000 pounds, or even more. The only way to judge a cow is by what she produces, and the only way to estimate her exact production is by keeping a record of her work during the year. In this record-keeping the College was anxious to assist, and was prepared to test the milk and keep the records for a year for any farmer who would weigh the milk from the cow to be tested night and morning three times a month, send a sample of this milk in special bottles to the College, along with a statement of the breed, name, age and weight of the cow, and with the time when she came in. Then, if the owner has kept track of what it has cost to feed her during the year, he will know whether she is a profit or loss to him, and will then act accordingly.

Prof. Carson said that the best feed for the dairy cow was corn ensilage, hay and roots, with bran. He believed that corn for feed, and clover, could be satisfactorily grown in this Province.

CARE IN MILKING.

In speaking of the disposal of the milk, the lecturer said that in the udder of a healthy animal the milk contained no harmful germs, but the instant it left the udder germs were ready to attack it, and the capacity for receiving such was in the proportion of twelve million germs to every sixteen drops of milk. Such germs, in thousands, were found in dirty stables, unscalded milk pails, on the clothes and hands of the milker, on the sides of the cow. He recommended, as a remedy for the last named, the wiping of the cow's sides and udder with a damp cloth, which would prevent germs from dropping into the pail. The separator, and all utensils connected with the disposal of the milk, he said, should be thoroughly scalded every time that they were used. Many had the impression that washing each time, and an occasional scalding, was sufficient. But this was an error, the practice of which spoiled the flavor of the cream and butter.

SEPARATING THE MILK.

The milk should be separated as soon as possible as it comes from the cow, as its temperature then is high enough to be germ-resisting, being about 98 degrees. A higher degree of heat than this is better, but not convenient to obtain. If the milk is allowed to stand, it should be heated again to at least 98 degrees before being put through the separator. If the pan of the separator were filled to the top the milk would go through faster, giving more in quantity in the cream can, but thinner in quality. The faster the separator was turned the greater the centrifugal force, and consequently the more skim milk thrown off and the less cream in the can, but this cream would be richer in quality.

BUTTERMAKING AND SELLING.

The Professor spent much time on the subject of buttermaking. He laid particular stress on the fact that buttermakers must suit the tastes of their customers. They were foolish to persist in making butter for market that suited themselves, when their customers demanded something else. Many customers liked butter that had a good deal of water left in it, say from 12 per cent. to 16 per cent., on account of the sweet flavor when freshly made. This was a demand the dairyman should endeavor, for his own sake, to meet, provided the butter was to be used at once. Such

butter would not keep long without losing flavor. Other customers liked butter made from sweet cream, rather than sour, but this was open to the same objection as the moist butter—it would not keep long and retain its sweet flavor.

It was not wise to send one's butter to the general storekeeper. He generally gave one price for all, good, bad or indifferent, packed it all together in a box, and shipped it away. The good buttermaker thus got no credit and no profit from a superior article. The best method was to find regular customers, and then cater to their wants, whatever they might be. With such customers, the clean and appetizing appearance of the butter counted for much. It should be carefully churned until the granules were about the size of wheat, then washed as little as possible, but until the buttermilk ran clear; put up in neat prints, and carefully wrapped in butter-paper. The result more than paid for the extra work.

QUESTIONS AND ANSWERS.

There was much intelligent questioning at every place. Here are a few examples of the questions propounded:

What makes cream hard to churn?

It may be too thin. Cows may have been milking for some time. Feed may not be of proper quality, and more bran should be given.

What makes butter mottled and streaked?

Churning too long will often have this effect. The butter is in large lumps, and cannot be properly worked or salted. Stop churning when the butter is like grains of wheat.

Does it hurt to mix sweet and sour cream together before churning?

Yes, the sweet cream is practically wasted, and will be seen rising on the top of the buttermilk, because sweet cream takes longer to churn. It is a safe rule to add no cream to the supply for at least twelve hours before churning begins.

RELATION BETWEEN PERCENTAGE OF FAT AND QUANTITY OF CREAM.

The following table, taken from the bulletin, "Gathered Cream for Buttermaking," will show the pounds of cream produced for 100 pounds of milk testing from 3.3 to 4 per cent. of fat, the cream testing from 20 to 40 per cent.:

Fat in Milk, %	20% Cream, Lbs.	25% Cream, Lbs.	30% Cream, Lbs.	35% Cream, Lbs.	40% Cream, Lbs.
3.3	16.5	13.2	11.	9.48	8.25
3.4	17.	13.6	11.33	9.71	8.5
3.5	17.5	14.	11.66	10.	8.75
3.6	18.	14.4	12.	10.28	9.
3.7	18.5	14.8	12.33	10.57	9.25
3.8	19.	15.2	12.63	10.85	9.5
3.9	19.5	15.6	13.	11.14	9.75
4.	20.	16.	13.33	11.43	10.

This table may assist patrons to adjust their separators to skim nearly the kind of cream they wish by weighing the milk and cream. For instance, if the milk tests 3.6 per cent. fat, and a 30-per-cent. cream is desired, there should be 12 pounds of cream from 100 pounds of milk.

BRITISH COMMENDATION OF THE DAIRY COMMISSIONER'S STAND.

Anent the still live subject of shipping green cheese, the following excerpt from an editorial in the Grocers' Review, Manchester, Eng., is appropriate:

Mr. J. A. Ruddick, the Dairy and Cold-storage Commissioner, of Canada, has not directed attention too early to one or two special phases of the cheese trade. Since public reference was made to the alleged conditions in the large packing-houses in the States, an impetus has been given to other industries, one of them being the cheese section.

The demand for this article rapidly extended, and, no doubt, with the desire to make hay while the sun shone, the makers in Canada—and elsewhere, for the matter of that—got their cheese onto the market as soon as it was at all possible. Temporarily, this was all right, perhaps, from the farmer's point of view, though, as most experts know, a reaction would almost inevitably follow. This has been the case, and the trade and the public generally are showing their undoubted resentment at the cheesemakers sending into the market their commodity in a green condition.

The Review then goes on to quote a portion of Mr. Ruddick's circular of May 7th, and throws out an interrogative suggestion in the words, "Will English and other cheesemakers take the hint?"

AIR TREATMENT FOR CAKED UDDER.

Dr. Peters, of the Nebraska Experiment Station, treats caked udder in cows in this way. He says:

"I have here an ordinary milk tube, with a little bibb at the end of it. I use a rubber tube something like an ordinary hand bicycle pump. Now I insert this tube carefully into the quarter that is affected and fill it up with air. I do not probe in there with darning needles and other kinds of instruments, but I fill up this spongy organ with air, and it is like filling a sponge with water. If the udder is caked, you put in as much air as you can. Then you massage or work with your hand, and work that air all through the quarter, and you will hear the bursting of these little vesicles—these little tubes. You can burst all of them in two or three applications of that kind, and you will generally restore the udder. I have treated several hundred very bad cases, and I know it works all right, and any one of you can easily do it.

"Now, where the entire udder soon after calving has become caked, we use what is known as the compress. We take a piece of heavy cloth and put it on so that it lifts up the entire udder, and tie it on top. We usually use straw with it, so that we do not chafe the back of the animal. That is to relieve the pressure. You will notice that the udder is very heavy, and that the pressure must be relieved before anything else is done. If you want to assist, take several small, five or ten pound bags and fill them with bran, keep them hot, and apply them to the udder. That is the treatment we use where there is a very great amount of congestion. Now, these are about the simplest methods of treating disease of the udder that I can explain—the massage for the diseased quarter, and the compress for the whole udder."

DAIRY RESEARCH.

SWEET-CREAM BUTTERMAKING.

Bulletins Nos. 13, 14 and 15, from the Dairy and Cold-storage Commissioner's Branch of the Department of Agriculture, Ottawa, deal with "Sweet-cream Butter," "Apparatus for the Determination of Water and Fat in Butter," and "Gathered Cream for Buttermaking."

The conclusions from the investigations made by Prof. Shutt, of the Experimental Farm, Ottawa, regarding sweet-cream butter, are: (1) By the sweet-cream process there is no greater loss of butter-fat than in the ordinary method with ripened cream. (2) The keeping qualities of the butter by the sweet-cream butter are distinctly superior to those of the ripened-cream butter.

These results agree with those obtained at the Dairy Department of the O. A. C., except that we should qualify conclusion 1 by saying, "If the conditions are just right, there is no greater loss of fat by churning sweet cream," but the tendency, as indicated by the experiments detailed in the bulletin, is for a greater loss of fat when churning the sweet cream, as compared with ripened cream, unless the buttermaker be very careful in his work.

TESTING BUTTER FOR FAT AND MOISTURE.

The tests of apparatus for fat and water determination in butter were also made by Prof. Shutt. The apparatus consisted of the Wagner butter-test bottle, and the Wagner butter hygrometer. Speaking of the test bottle, the author says: "The reliability of the results from this test bottle depends largely upon the temperature of the contents of the bottle when the fat column is read." The bottle gave results consonant with those obtained by gravimetric analysis, by using 1 c. c. acid (sulphuric), and reading the fat column after placing the bottle (direct from the machine) for ten minutes in water that had a temperature of 122 degrees F. Of the butter hygrometer, the writer speaks as follows: "After considerable experience, we cannot speak in unqualified terms as to its general satisfactoriness." In other words, he does not recommend it for practical purposes in determining the moisture in butter.

In this connection, it is interesting to note the following recent warning from Prof. G. L. McKay: "Trying to approach the 16-per-cent. limit is a very dangerous practice, and should not be

resorted to." This warning is one that may well be given to Ontario buttermakers. We recently heard a creamery-owner say that he was going to put all the water into his butter that the law will allow. In trying to get all the water in butter which the law will allow, some of our buttermakers are likely to get more than the law allows. Someone is likely to suffer.

GATHERED CREAM.

The bulletin on "Gathered Cream," by Messrs. Ruddick and Barr, is full of practical suggestions for improving the results at the cream-gathering creamery. It is illustrated with plans for water tanks to hold cream cans for cooling cream from a separator or for setting milk in; to raise the cream by gravity process in deep cans.

The table on page 10, showing the relation between percentage of fat and quantity of cream, is a very good guide to the operator of a separator who has a Babcock tester or facilities elsewhere for testing milk; but he may as well have the cream tested, also, and know what percentage of fat his cream contains, thus saving the trouble of weighing milk and cream. The table is of little or no value unless the fat in milk is known. Then, too, it should have been qualified, by saying that the table is correct, assuming that there is no loss of fat in the skim milk, nor in handling the milk. As there is always some loss in both, the table, in any case, is only approximately correct.

The summary of important points includes some very good paragraphs, that have been quoted last week in this department.

H. H. D.

POULTRY.

SEASONABLE NOTES ON POULTRY MANAGEMENT

Under the general classification, "Farmers' Bulletins," the United States Department of Agriculture, at Washington, issues from time to time a series of very instructive and readable publications. One of the latest to hand is Farmers' Bulletin 287, by G. Arthur Bell, Assistant Animal Husbandman of the Bureau of Animal Industry, Washington, D. C. It is entitled "Poultry Management," and is a condensation of an article written for the twenty-second annual report of the Bureau. We quote from it a number of seasonable suggestions for the Poultry Department of "The Farmer's Advocate" this week:

WATER.

Plenty of fresh water should always be accessible to the hens. If supplied irregularly, they are likely to drink too much at a time. It should not be exposed to the sun's rays in summer or allowed to freeze in winter, if this can be avoided. A flock of 50 hens in good laying condition will require 4 to 6 quarts of water a day.

MILK.

When properly fed, milk is excellent for poultry. In feeding sour milk or buttermilk, however, the feeder must be careful not to give too much, or bowel trouble will likely result. Skim milk is an economical feed. Skimming leaves the most valuable food constituents—the nitrogenous substances—in the milk. Not only does this skim milk contain much nutritive material, but contains it in a form which, as a rule, is easily digested. Skim milk may often be advantageously substituted in part for meat. Milk may be used in mixing the soft food, or it may be given to drink in addition to water.

FEEDING HOW OFTEN PER DAY?

Some poultrymen feed their flocks twice a day, others three times. The best plan is to feed fowls in confinement three times, and those having free range in summer twice a day. When there is a long time between feeds, it is difficult to keep confined fowls busy, and idle birds contract bad habits, such as feather-pulling, egg-eating, and the like, besides going out of condition for lack of exercise.

EFFECT OF FEED ON CHARACTER OF EGG.

In extreme cases the flavor and the odor of the feed have been imparted to the egg. Onions have been fed in sufficient quantity to bring about this effect. Feeds of high and objectionable flavor should not be used by those who desire to produce a first-class article. In no case should tainted feed be allowed to enter into the ration. Feed also has an influence on the color of the yolk. Corn fed exclusively will give a deep-yellow or highly-colored yolk, while wheat fed alone will produce a much lighter-colored yolk. A fairly high-colored yolk is usually preferred, and may generally be obtained by feeding a moderate amount of corn. Plenty of green feed also deepens the color of the yolk.

DROPPINGS AS AN INDICATION OF HEALTH.

The condition of the droppings furnishes a good indication of the hen's health. They should be of sufficient consistency to hold their shape, but not too solid. The color should be dark, tapering off into grayish white. If the droppings are soft or pasty, and of a yellowish or brownish color, it

indicates too much carbohydrates (starchy, sugary and such matter) or a lack of meat. If the droppings are watery and dark, with red splashes of mucus in them, it indicates too much meat. A greenish, watery diarrhoea usually indicates unsanitary conditions in the surroundings, the feed or the water.

SEPARATING THE SEXES.

Poultrymen consider it a good plan, where convenient, to separate the cockerels and pullets, as both will thus develop better. In the case of the more precocious breeds, they should be separated when removed from the hen or brooder. The slower-maturing varieties may be allowed to run together somewhat longer, but in any case the separation should be made before the cockerels begin to annoy the pullets.

TEACHING THE CHICKS TO ROOST.

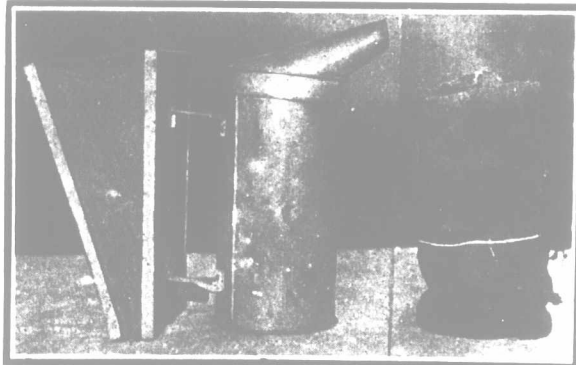
It is often advisable, says Bell, in his bulletin on "Poultry Management," to teach the chicks to roost when eight to twelve weeks of age. When allowed to remain on the floor, it is difficult to keep them clean and to keep them from crowding. If wide roosts—3 to 4 inches—are used, there is but little if any more danger of crooked breasts than if the chicks are allowed to remain on the floor. The chicks can generally be taught to roost by putting the perches near the floor, and placing with them one or two old hens or older chicks that are in the habit of roosting. If this plan is inconvenient, or does not prove effective, the chicks may be placed on the perches after dark for a few nights, until they have learned to go there of their own accord.

APIARY.

SMOKER FUEL.

Editor "The Farmer's Advocate":

Anything that will hold fire and give smoke can be used as smoker fuel. But for all that, certain kinds of fuel are more desirable than other kinds. Rotten wood is, perhaps, more used than anything else. It will hold fire well, too, if it is of hard woods. I don't like it as well as what I now use, rags, because it is too much trouble to get it. Some apiarists use excelsior—woodshreds in which breakable things are packed for transportation—and it burns well, and gives a good smoke, too; but for me, it is not lasting enough. As all beekeepers do not see things in the same light, others may find excelsior excellent; that's why I mention it. "Gunny" sacks have been used by one New York beekeeper for a good many years. He lays them outdoors for several months so the action of the sun and rains will partially rot them. If they are not allowed to rot, they will not hold fire so well, and are more liable to blaze when working the smoker bellows much, as I know from experience. After the sacks have rotted enough, they are rolled onto a stick—window-shade fashion—which is then pulled out, and



Smoker and Rag Fuel.

the sack chopped into lengths to fit into the smoker. The cutting-up can be done more expeditiously with a broadaxe than with an ordinary axe. A string should be tied around each piece so it will not unroll again. This had better be done before the sack is chopped up. Not knowing but that someone may not think of it, I will add that the sack must not be so long that it will roll up thicker than the inside of the smoker fire-cup. In order to have the "wads" catch fire quickly, one end of each should be dipped in a saturated solution of saltpetre. A little red lead or other coloring should be added to the solution to color the "wads," so one can afterwards tell which end to light. The solution can be made in a shallow dish, not over half an inch deep.

Instead of gunny sacks, one can roll up any kind of old cloths, and treat them as mentioned above. If you do so with gunny sacks, it is better to wash the cloths to the sun and rain, to get rid of the grease.

A year or so ago, Gleanings in Bee Culture suggested the use of greasy cloths for smoker fuel. The editor said that it could be picked up on railroad tracks, where it is dropped by engineers. That's a good idea. I have, however, not found it necessary to get greasy rags from there, for we accumulate sufficient for smoker fuel by saving every rag used for wiping off greasy machine parts, buggy axles, etc. As such oily rags light easily and burn well without any further treatment, I do not roll them into "wads." If a piece is too large for the fire-cup, it is torn smaller. I like to put a few chips of wood on the bottom of the fire-cup, then drop on a few coals from the cook stove and fill the smoker with the greasy rags. By putting on more rags as soon as they burn down in the smoker, one need not relight the smoker for the day.

Wis.

F. A. STROHSCHNEIN.

GARDEN & ORCHARD.

SYSTEMS OF PACKING AND SELLING APPLES.

Last week, under the heading, "History of the Apple Trade in Ontario," we quoted from Mr. McNeill's bulletin on "Co-operation in the Marketing of Apples," concluding with the four important requirements found necessary for successful catering to the foreign demand, to wit: Large lots of fruit; few varieties; uniform packing, grading and marking; and the employment of skilled labor.

To meet these conditions, a variety of methods are in vogue, for each of which something may be said. To quote again from the bulletin referred to:

1. The grower of the fruit may pick, pack and sell on his own account.
2. The grower sells on the tree, the buyer doing the picking and packing.
3. The grower sells, picking the fruit, the buyer doing the packing.

The selling may be "by the lump," or at a price per barrel, with a level price for 1st and 2nd, or a different price for each grade.

The first method does not enable a sufficient quantity of fruit to be gathered to impress the market. The expense of securing a suitable market is considerable, and is almost as much for a small quantity as for a large, and there is no opportunity of securing uniformity for larger lots. This method is largely confined to the local market.

The second and third methods permit a larger quantity of fruit being gathered under one brand with some degree of uniformity. But the cost of doing so is excessive, and must ultimately be borne by the grower.

The men employed in apple-picking are hired for only a few weeks annually, and it can be readily understood that high wages and indifferent services frequently prevail. It is not uncommon for a single buyer to have ten or fifteen gangs. It is asserted that a well-known operator employed at one time 70 gangs, working hundreds of miles apart. A proper supervision under such circumstances is impossible. As a result, time and money are wasted, partly as a necessary result of the methods of working, partly as the result of the class of help obtainable, which cannot be trusted, except under close supervision.

In 1904 many thousands of barrels of apples were bought at 56 cents per barrel, whereas it frequently cost no less than 45 cents per barrel to pick and pack the same apples.

In 1905 and 1906 prices for apples were higher, but there was no reduction in the cost of packing. It is asserted, too, by the buyers, that where the apples were bought by the barrel, the growers, either by cajolery or bribery, induced the packers to put in many inferior apples to increase the number of barrels.

In the older orchards, in which varieties covering the whole season were grown, it was also found impossible to visit the orchards at the intervals necessary to pick and pack the different varieties at the proper stage of maturity. A heavy source of loss, in consequence, was the waste which resulted from picking apples either before or after they were matured, or in allowing them to go to waste entirely. It not infrequently happens, too, that the buyer, through failure to barrel promptly, and leaving the fruit exposed to sun and frost, caused a partial or total loss. Generally the grower is the immediate loser. In a very few cases does the average farmer have an agreement so drawn as to cover these points, and if he does secure judgment, the buyer too often has no assets upon which he can levy.

The method of selling "by the lump" is very unfair to the grower, inasmuch as the buyer is likely to be very skillful from long practice in estimating the quantity of fruit in an orchard. The buyer and seller are thus not dealing on equal terms. In the few cases where the grower gets more than the orchard is worth, he is in the position of receiving money for which he has given no equivalent.

"Lump buying" is also responsible for having

placed upon the market an exceedingly poor grade of apple. As has been pointed out frequently, the average buyer has poor facilities for disposing of his culls and lower grades. The temptation, therefore, is very strong—too strong to be resisted in many cases—to include inferior apples with the better grades, and to pack everything in the orchard, with the hope of getting some price for the poorer qualities. But inspectors, under the Fruit Marks Act, have frequently drawn attention to the fact that the packages upon which they are obliged to make an adverse report were very frequently from these "lump" orchards.

It is said by the buyers that sometimes, when the orchard is bought by the "lump," the growers are very careless of the fruit after the sale. Stock are allowed to break in and eat all the fruit in their reach. No precautions are taken against theft, if it is not actually invited, nor can the buyers depend in all cases on proper protection in case of frost or other contingency. Of course, the buyer is the loser in these particular cases, but he provides for this in the average price he gives. The losses, therefore, in the last analysis, do not fall altogether upon those who are responsible for them, but upon the whole body of apple-growers who sell in this way.

SELLING BY THE BARREL.

In selling by the barrel, the grower is often defrauded by a very simple device on the part of the packer if he does not do his own picking and packing. The packer will set a very high standard for his No. 1's, with the result that the grower will find probably not more than ten per cent. of his orchard product graded No. 1. The standard of the No. 2's will also be high, making a large percentage of culls. The bargain, as understood by the grower, presumed the ordinary grading; but there being no written contract, the buyer usually has his own way. Of course, the presumption is that these apples are afterwards remarked, but if not, they are sent to special customers, where their extra quality will secure an extra price.

On the other hand, buyers are sometimes deceived by their own packers. These packers, by personal friendship, or by direct bribery, are induced by the grower to put in a poorer quality of fruit than the grade would call for. There is no possibility of a proper inspection by the buyer in most cases, and these packages go forward to the market bearing the buyer's brand, that are, nevertheless, fraudulently marked by his subordinate. The fraudulent nature of the marking is not discovered until it is too late to punish the perpetrator of the offence, even if it were possible to identify him. The various packs are mixed in such a way that it is not often that the individual workman can be properly identified. It will thus be seen that the method of buying apples is a hazardous one both for the buyer and the seller, and should be replaced by something better.

CO-OPERATION AND THE FRUIT MERCHANT.

In a great many cases the co-operative associations have been vigorously assailed by the apple-buyers, and in some cases by the commission merchants. It is taken for granted that the co-operative associations will eliminate the middleman. This is only partially true. Co-operative associations will reduce the number of middlemen, undoubtedly. This is in the interest both of the grower and the legitimate fruit merchant. The middleman who will be dispensed with is, in most cases, unnecessary to the legitimate fruit merchant, as well as to the grower. The co-operative associations do not aim to sell to the consumer direct. They appreciate the fact that there is an absolute necessity for the fruit merchant to come in direct contact with the consumer. Their only object is to reach this fruit merchant as directly as possible. This direct selling will undoubtedly prove a very great benefit to growers, merchants and consumers. A secondary object of the co-operative association is undoubtedly to prevent an unscrupulous buyer from playing off one weak-kneed grower against his neighbor, for the purpose of lowering the price of the fruit below its actual value.

THE VALUE OF A GUARANTEE.

Confidence in the uniformity and honesty of the quality and grading of the fruit is the basis of successful trade. The buyer must be perfectly confident that the box which he is getting is exactly as the markings upon the outside would indicate, and the package should be so marked that it would describe accurately the fruit which it contains. It should also have marks to indicate whether the packer or the shipper was to blame. It is, of course, distinctly understood that where the fruit is not as represented, for any reason, the association will make good. A guarantee of this kind that is faithfully carried out will require, of course, protection on the part of the association. They will have to adopt devices against unscrupulous buyers who may make false reports. Wherever it is possible, a trusted individual makes personal examination. Where that is not possible, the fruit is taken out of the hands of the person complaining, immediately and completely, even where it is sold for less than the per-

son complaining is willing to give for it. By making this rule, trivial complaints are not likely to be made. Until the brand becomes well known, it is certainly a good advertising device to place a slip in each package, stating clearly the association's guarantee. These slips may, in all such cases, carry the number of the packer as well.

SELLING BY COMMISSION.

There are different methods of selling fruit. The perishable nature of fruit, and the uncertainty in the quantity and in the quality of it until it is packed ready for market, makes it very difficult to sell, except by consignment. Consigning fruit is a necessary evil, as the fruit trade is organized at the present time. One of the objects of organization among fruit-growers is to do away with this method of selling, except to a very limited degree. It is perfectly true that there are many reputable commission merchants whose record for fair dealing is unimpeachable. On the other hand, there is scarcely a fruit-grower in the business to-day who has not suffered severely in consequence of too great a trust in the commission business. It is absolutely impossible for the average fruit-grower to tell whether he has been dealt with fairly or not. He cannot audit the accounts, nor follow his fruit to the next purchaser, and he is practically obliged to take the word of the commission man for all facts connected with the sale of his fruit. He says, in fact, to the commission man, "Here is my fruit, give me what you please for it." It would be strange, indeed, if some commission men did not yield to the temptation and send returns far below what was received for the fruit. It is not a question of the responsibility of the commission merchant. His standing may be high in financial circles, but if he wishes to be dishonest, he need not want for a plausible excuse to return almost any sum to the grower. The first device is to report the fruit arriving in bad condition. This is usually accompanied by a request for instructions how to deal with the fruit. The fruit-grower, hundreds of miles away, and exceedingly busy with the remainder of the crop, can only reply, "Do the best you can with it." Not unfrequently the commission merchant even reports that the sales did not equal the charges, and asks the fruit-grower to remit a further amount.

But, presuming that the commission man is perfectly honest, and has done his best with the fruit, the system is yet a very bad one. There is no regulation of the amount of fruit which is shipped to any particular point. There may be twice or three times as much fruit as the market can absorb at profitable prices, yet the commission merchant is obliged to lower his price until his sales take place.

The evils are still worse where the commission merchant also buys upon his own account. Then he is sure to push his own goods first, and hold the goods sold on commission for the poorer market, probably after it has seriously deteriorated by the delay in selling.

Another evil has been frequently commented upon. Goods on consignment can be used very effectively to undermine the trade of a competitor not in the same combination with the commission merchant. It frequently happens that a stranger appears in the city with a few carloads of fruit, which he endeavors to sell. This, of course, is an invasion of the territory of the merchants already established there. But if they were obliged to meet the competition of this newcomer with their own goods, they might hesitate before they lowered the price so as not to yield a profit. But where they have goods on consignment, they have no hesitation in forcing this upon the market, with the object of lowering the price below the legitimate point upon the newcomer's fruit.

These evils alone would be sufficient to condemn sales upon consignment. All these evils are intensified where the sales are made by auction. In such cases, not unfrequently there is an easy combination of buyers that limits the price so as to give them an unwarranted profit on their sales.

SELLING BY TENDER.

Selling by tender is an excellent plan after a reputation has been established. This plan is adopted by the Hood River (Oregon) Apple-growers' Union, and also by some of the Ontario associations. This method is only possible where the organization is fairly perfect. The manager must know very definitely the quantity of fruit which he has for sale, and the quality of it. Of course, this would be impossible without very stringent rules both as to the growing of the fruit and the selling of it. It is reported that the Hood River people, selling by this method, have been able to raise the price of their apples from 80 cents per box to \$2.00 per box.

It takes a number of years to secure an organization, as well as a reputation, consequently this is probably not the best method of selling for new organizations.

DIRECT BUYING.

Whatever method of disposing of the stock is adopted, it may be taken for granted that the only safe way is to sell at the point of production.

A more serious defect of all these methods is that the interest of the buyer in an orchard does not continue from year to year, and does not begin early enough in the season to permit him to improve the crop in any way.

The methods of harvesting and selling account, in some degree, for the want of improvement in orchard culture in all its branches. This want of improvement is, of course, intimately associated with small profits. Indeed, so small have been the returns from certain sections of the country, that in years of low prices thousands of bushels of good apples, and those that might have been good with proper care, have been allowed to go to waste.

INTRODUCTION OF THE CO-OPERATIVE METHOD.

It was with the object of providing at least a partial remedy for the evils above referred to that the co-operative method of selling apples was first adopted. The experiment has been, to a certain extent, successful. In Ontario, the original purpose of organization was for the combining of a number of small lots of fall apples into car lots for shipment, with the object of securing thereby a reduction in freight charges. Each member of the original associations graded and packed his own apples, while the selling was entrusted to one of the members having a business connection in Western Canada or some of the large commercial centers. The adoption of this method was the means, undoubtedly, of securing a considerable saving to the producer, but it was only a partial remedy, and related only to one of many evils, namely, a high freight rate. Among the disadvantages which it failed to mitigate were, a lack of uniformity in grading that militated against good prices, and the absence of general interest among fruit-growers, and of incentive to secure many much-needed improvements. It was decided, therefore, by the pioneers of the movement to obtain more formal organization and added definiteness of aim by incorporation. It was found, in the case of Ontario, where the movement for co-operation originated, that legislation sufficiently comprehensive in character to meet the needs of the situation was already on the statute books of the Province, in the form of an Act passed in 1900 to provide for the incorporation of co-operative cold-storage associations, and up to the present time no additional legislation has been sought, with the exception of one or two amendments to the Act passed during the present year to secure its adaptation to the requirements of the developed form of the association.

A CHANGE IN FRUIT PROSPECTS.

Speaking from the Niagara District, a great change is evident in the fruit crop. The long-continued drouth in some parts very much lessened the strawberry crop, which, however, has brought unusually good prices. The cherry crop is very short, so much of the fruit has blighted and dropped. We are now (July 5th) harvesting Governor Woods, which are only about one-third of a crop. The black hearts, such as Knight and Tartarian, are very scant, and so are the Yellow Spanish and the Windsor. Both the latter are, however, such large cherries that it needs but few to fill a basket. Pie cherries are a good crop, especially Dyehouse and Richmond. Currants and gooseberries promise well, but the plantations of these are much reduced. Pears are a complete failure. Bartlett and Duchess blossomed fairly well, but only an occasional pear remains firm on the trees. My orchard of Bartletts that gave over 3,000 baskets last year, will not give over 50 this year. Plums are dropping daily from the trees, and the crop will be very light. Peaches are fairly good, but a large number are evidently dropping, because not sufficiently fertilized, so the crop will not be so very large. Grapes never promised better, have set remarkably well, and will be a profitable crop this year. But, on the whole, the fruit crop promises to be short, and the prices high. L. WOOLVERTON.

COOLING FRUIT IN CARS INSTEAD OF WAREHOUSE.

Some of our readers may have noticed newspaper mention of some experiments being made at St. Catharines, under the direction of the Dominion Dairy and Cold-storage Commissioner, to test a means of cooling refrigerator cars of fruit by means of currents of cold air. Inquiry at headquarters reveals that the announcement was premature, inasmuch as the results were still a matter of speculation. It seems that Commissioner Ruddick has devised an arrangement for utilizing the cold-air currents of a mechanical-cold-storage warehouse for cooling cars placed alongside the warehouse. The idea is to load the fruit directly into the car, instead of putting it first into the warehouse to be chilled, thus saving considerable time and handling of the fruit, as well as protecting it from the accumulation of moisture, which condenses when it (the fruit) is being transferred from the cold warehouse to the car. "The idea is not exactly a new one,"

writes Mr. Ruddick, "as I believe something has been done in the United States along the same lines in the citrus and banana trades. Of course," he adds, "we do not know how this is to turn out, and I prefer not to say anything about it at present."

JUNE FRUIT CROP REPORT.

The second Fruit Crop Report of the season, issued by the Fruit Division, Ottawa, under date June 29th, remarks that additional and fuller notes on the effects of the past winter on fruit trees have been received with the June reports. Trunk injuries are proving to be much more numerous than was suspected last month. This is particularly true along the northern borders of the different fruit belts. Apples, pears, peaches and plums (particularly the Japanese) have all suffered. Red raspberries have badly winter-killed, and the general outlook is for a light crop; but in favored situations, where the plantations have been protected from winter-killing, medium and even full crops have been reported. The Herbert raspberry stood the winter better than the Marlborough and Cuthbert, which have hitherto been the leading market varieties. Black raspberries were badly winter-killed, but will yield relatively as well as the rest. Blackberries also suffered severely by the winter.

Currants, especially red varieties, are being planted in much larger quantities, and are yielding well where the bushes are protected from the currant worm. There is apparently less risk in growing the currant than any other of the small fruits. Only in a few cases has any injury by frost been reported, but in the comparatively few districts infested with San Jose scale, currant injuries due to this insect are reported.

Gooseberries are a medium to full crop. Some excellent English varieties are now being grown successfully in British Columbia, and are likely to be a commercial feature in the near future.

Late spring frosts seem to have seriously reduced the tomato crop. One correspondent reports the loss of 500,000 plants, another of 150,000. It was expected that these losses in the early plants will be in part made up by later plantings, but there will almost certainly be a shortage, not only for canning purposes, but for the general market. Fortunately, since May 20th the weather has been most favorable for rapid growth.

THE CANNING INDUSTRY.

The fruit-canning industry is a larger factor in the small-fruit problem this year than ever before. Cannerymen usually make the contracts for nearly their full supply long in advance, and they appear in the current market only to absorb a surplus, at a price that will yield a little more than the cost of transportation, packages and picking. This year they are buying in large quantities, at fair prices, outside of their early contracts. Many correspondents have reported most favorably upon the influence of the canning factory in their neighborhood.

FOREIGN FRUIT-CROP CONDITIONS.

Weather conditions in Great Britain have not been favorable. Frost and cool weather have prevailed. Indications up to time of writing were for a medium crop or something less of tree fruits; small fruits somewhat better. Continental Europe will market not more than a medium crop of fruits of all kinds. Late frosts and unseasonable weather have prevailed almost universally. According to the June crop report of the United States Department of Agriculture, apple prospects in the Republic will not be nearly up to last year. Practically all the great apple-producing States show a lower average of conditions than last year at this time.

INSECTS.

Insect pests generally will be less prevalent than last year. The cold, backward spring has been unfavorable for their normal development, so that insects of all kinds have been slow in making their appearance. Thus, those who wisely take advantage of nature's handicap, and assist her by spraying, will undoubtedly secure their reward in clean fruit.

PESTS IN EXPORT FRUIT.

South Africa, Australia and Newfoundland, Germany, and the Province of British Columbia, rigidly enforce laws prohibiting the importation of fruit infested with codling moth, black spot, sooty fungus, San Jose scale, and other pests. Every season consignments of fruit from some parts of Canada have been destroyed at one or all of these points. Growers are reminded that they can insure a crop at least 75 per cent, of which will be clean by spraying four times with Bordeaux mixture. The shipper, in any case, should not neglect a personal examination of all fruit for export to these countries.

ORCHARD COVER CROPS.

Editor "The Farmer's Advocate":

A cover crop is sown in the orchard about the season of the year when the trees have ceased to grow. The value of such a crop is already widely recognized as a valuable feature in orchard management, although, like many other good things, it is not used as much as it should be.

In the days when orchard lands were not even plowed, and when the hay that grew in the orchard was deemed of more value than the fruit crop, there was no opportunity to use cover crops. But the tide has changed. Since orchards have been called upon for larger crops of better fruit, the need has been felt for something which would check the luxuriant growth induced by cultivation and fertilization and lull the orchard back to rest before the coming of winter. This need has been met by the cover crop.

The commonest and best method is to plow the orchard in the spring, as early as the soil is in proper condition, and, by thorough cultivation throughout the early part of the season, to keep down weeds and put the plant food of the soil in the best possible condition for the use of the trees. Ordinary judgment teaches us that, if we are growing apples or pears, it is poor economy to let part of the plant food, which might add to the size and quality of the fruit, be used up in forming luxuriant couch-grass or vigorous ragweed. From the time it is plowed in the spring, until midsummer, the orchard should receive sufficient cultivation to liberate the largest proportion of plant food available, as well as to retain the moisture, by forming a mulch. But there comes a time when these conditions are no longer conducive to the best interests of the orchard. By midsummer the new growth of wood and leaves is practically finished, and it remains only to mature and ripen the new wood and fruit. It is then that the cover crop should be sown; and as it grows, it gradually takes more water and plant food away from the trees, so that their growth is somewhat checked, and late, sappy growth prevented. Consequently, by autumn the wood is well ripened and the buds sufficiently matured to winter without much danger of winter-killing.

Some of the main advantages of the cover crops are as follows:

1. A cover crop adds large quantities of vegetable fibre to the land, thus preventing hard soils from cementing or puddling.

2. On bare and rolling land, where the water quickly runs off, and the snow blows off the high portions, a growing crop tends to hold the moisture until it has time to soak into the soil.

3. The cover crop usually forms such a thick, dense mat that windfall apples are scarcely bruised.

4. Ground covered with vegetation will hold the snows in winter, and thus prevent deep freezing, thereby avoiding the liability of the roots being injured.

5. The dense growth will capture falling leaves and hold them on the land, thus adding more humus to the soil, instead of allowing them to be blown off to the fence-corners.

6. Land covered by a growing crop will be relieved of some of its excess moisture in the spring, owing to transpiration of moisture through the leaves, and may be plowed a little earlier than land which is bare. This fact enables the fruit-grower to gain several days in the busy season of spring.

7. The roots of the cover crop assist the tree roots in rendering certain mineral plant foods more available in the soil.

8. A cover crop affords the most economical means of furnishing a large supply of humus in the soil.

9. A large amount of plant food is continually being liberated after the growth has ceased. This food, instead of being leached into the subsoil, is held by a growing crop in a readily available form for the following season.

10. Leguminous crops, such as clovers, vetches, peas and alfalfa, by virtue of certain bacterial organisms which inhabit nodules on their roots, are able to assimilate nitrogen from the air. Nitrogen being a very expensive fertilizing constituent, the value of this class of plants is great.

According to the season, a cover crop should be sown from the 15th to the 25th of July, so that it may make a good growth the same season. Then the crop should be plowed under as early in the following spring as possible, followed by thorough cultivation until midsummer.

Different soils require different classes of cover crops. Such crops as clover, peas, vetches, alfalfa and beans, by virtue of the nodules on the roots, are capable of utilizing atmospheric nitrogen. Where land is deficient in nitrogen, these crops should be grown. Such crops as turnips and rape are usually grown to liberate certain potash compounds and make them more available to the roots of the trees, as well as to succeeding crops.

At the Ontario Agricultural College, Guelph, where numerous experiments have been conducted on orchard cover crops, hairy vetch has proven to be successful. Where sown at the rate of 35

pounds per acre, it forms a close, dense mat, and gives an excellent growth the same season. Its close, dense growth forms no inconvenience for apple-pickers to find the fallen fruit. Red clover, when sown at the rate of 20 pounds per acre, usually makes a fair growth, and generally lies close to the ground. Alfalfa, when sown at the rate of 30 pounds per acre, is one of the best nitrogenous cover crops for dry land. Its habit of growth, however, is, as a rule, more upright than that of hairy vetch. Rye, buckwheat and oats are also useful, though they gather no atmospheric nitrogen. As a general rule, it pays to use different cover crops from year to year, for the same reasons that rotation is advisable in the fields.

Hastings Co., Ont.

R. B. COOLEY.

THE FARM BULLETIN.

ENTOMOLOGISTS DISCUSS POPULAR SUBJECTS.

The summer conference of the Entomological Society of Ontario was held at the Ontario Agricultural College, Guelph, on July 4th. This date was decided upon that the public-school teachers taking the nature-study course at the Macdonald Institute might have the opportunity of attending the sessions and getting a glimpse of the work entomologists are doing.

The first paper was by Mr. H. H. Lyman, of Montreal, who discussed two small butterflies common at this season of the year, and by some entomologists believed to be different species, by others thought to be the same, or differing from each other merely as varieties. After Mr. Lyman's paper, Dr. Jas. Fletcher spoke of the great pleasure and benefit to be found in rearing insects from the egg through all their different stages, and in observing the changes that took place. He suggested the advisability of doing this with the common sulphur butterfly.

THE TENT CATERPILLAR AND ITS PARASITES.

The second paper was an account by Dr. Brodie, of Toronto, of his observations throughout nine years of a colony of American tent caterpillars, along the ridge near the Don. He described how he first saw the colony when it was moderately large; how the next year or two it became very numerous, and stripped all the wild cherry trees of their foliage, until the caterpillars had to scatter to the other trees of the forest—like the maple and elm—for food; how he took one year over 400 of these and reared them, and the next year over 500, and found that a large number of parasites had assailed them, especially in the later year. So great was the number of parasites that year that very few moths ever emerged, and in their stead a swarm of parasites came forth from the cocoons. The next year scarcely a tent caterpillar could be found out of the once numerous host, so abundant had the parasites become.

PARASITES OF GYPSY AND BROWN-TAIL MOTHS.

This paper led to very interesting remarks by Dr. Fletcher, on the methods of fighting the gypsy and brown-tailed moths in the State of Massachusetts. He informed us that not only was the Government of that State, through its entomologists, fighting these dreaded pests by artificial means, such as spraying, etc., but had also one man in Japan looking for parasites, and forty men in Europe for the same purpose. As a result over 90,000 parasites have been shipped to the United States the last two years, and each one of these has been carefully examined before setting it free in the forests, the danger being lest an injurious parasite might otherwise be allowed to get a footing on this continent. At last these efforts are beginning to be rewarded, it is believed, in a diminution of the numbers of the injurious moths.

THE BALANCE OF NATURE.

Mr. C. W. Nash's paper on the "Balance of Nature" followed very naturally upon the above discussion. Mr. Nash described how nature, when not interfered with by man, maintained in a wonderful way the balance of life, both animal and vegetable. He showed how in a state of nature even the codling moth and the cutworm have a place to fill in preventing the overloading of a tree with fruit, or the excessive number of some species of plant, and how again the parasites and other forces prevented the codling moth or cutworm becoming excessively numerous.

Man, however, he said, was the disturbing factor, chiefly through the tilling of the soil and the raising of great amounts of certain kinds of crops, and the destruction of other kinds that nature was wont to provide. Among the great friends that we could rely upon to come to our aid against insect or animal pests were birds. A case was cited in connection with Scotland, where there was once a very great plague of field mice. Man was helpless, but the owls came from no one knew where, in such numbers that they soon restored the normal condition of things. Similar great assistance has been rendered by birds to man in our own country. Mr. Nash said that if we used intelligent methods in dealing with our fisheries, an acre of water should yield us just as much wealth as an acre of land.

FLIES AND MOSQUITOES AS CARRIERS OF DISEASE.

Perhaps the most interesting address of the sessions was given by Dr. H. Skinner, of Philadelphia, on "Insects as Carriers of Disease." Dr. Skinner, being not only an entomologist, but also a medical man, was peculiarly well fitted to discuss such a subject. The

chief insect carriers of disease dwell on were the common house-fly and one class of mosquitoes.

The house-fly carries disease chiefly on its feet, which have numerous little hair-like structures on them to which infected matter clings, and is deposited wherever the fly alights. For instance, if the excrement from typhoid patients is exposed in any way to these flies they will feed upon it, and then entering our homes and getting on the table will deposit the germs on whatever food they have access to there; consequently, it is no wonder that the members of the family eating this food get the disease. Hence the importance of screen doors and wire netting on windows to keep out the flies, and also of exposing no infectious matter where they can have access to it.

To combat flies, however, the best way is to strike at their source. They breed in horse manure alone, and if this is not exposed to them they cannot reproduce. It is in war that flies do the chief harm. The presence of numerous horses affords the desirable opportunities for reproducing themselves; the food of the soldiers is exposed to their attacks, it being often said by soldiers in such wars as the Boer and Spanish-American, that the food was almost black with flies; hence, typhoid having once broken out, these flies would readily spread the contagion. In the war between the United States and Spain, 5,000 Americans died of fever, while only 200 were killed by bullets. In the Boer war the proportion of deaths from disease to those from bullets was about the same. In neither of these wars were proper precautions taken against flies carrying germs. In the Japanese-Russian war, on the contrary, the Japs took every precaution against flies and other insects, and out of their enormous force of nearly 1,000,000 soldiers, less than 200 men died of typhoid.

Mosquitoes have been responsible for the spread of yellow fever and of malaria; not that these insects originate the disease themselves, but by biting some infected person they absorb the poison in their body, and when they attack another person this poison is inserted, and so spreads the disease. Very interesting examples were given by Dr. Skinner and Dr. Fletcher of the wonderful way in which yellow fever had been wiped out in Havana and New Orleans, simply by taking precautions against mosquitoes. The coast of Sierra Leone, in Africa, once known as the White Man's Grave, is now, through the destruction of the mosquito, a health resort. In Italy the railroad company formerly paid \$1,000,000 for quinine to be used by their workmen in the Campagna to ward off malaria, but now that it has been found that mosquitoes are the real carriers of this disease, it only costs the company a few hundred dollars for printed instructions to the men how to guard against mosquitoes, and for gloves and veils and netting to be used on the shelter-houses, where they wait for the trains to take them to their homes in the evenings. Mosquitoes breed in stagnant water wherever it is found, even in cans or other vessels, hence the best remedy is to drain swamps and pools, and leave no stagnant water around our buildings; and in case of an outbreak of disease, keep all insects from the sick person, or any contagious substance connected with him. Dr. Skinner also mentioned that the terrible disease in Africa, called the "Sleeping Sickness," was due to insects, as was also elephantiasis in the islands of the far East.

ANIMAL INSTINCT.

The last address of the evening session was given by Mr. Nash on "Instinct vs. Education." The speaker claimed that such a thing as conscious parental instruction or education of young animals was unknown. It was instead an inherited instinct that taught the young themselves how to do the right thing to secure protection and food. A good example of this instinct was seen in bird migration, especially in the case of such birds as the humming bird, where, instead of going in flocks, each bird, even the young, goes by itself. Friday, July 5th, was spent by the members of the society and the nature study teachers at Puslinch Lake, where collections of plants and insects were made, and afterwards discussed in common.

ESSEX AGRICULTURAL HIGH-SCHOOL CLASS.

The idea of an agricultural class in connection with the Essex High School has been especially well received by the farmers of the county. The County Council, which is composed chiefly of representatives from the rural districts, came forward and assisted the Board of Education with a very liberal grant of \$500. This will be used towards providing the initial equipment, laboratories, experimental plots, etc. Not only are farmers taking up the idea, but the citizens of the town and the Board of Education are giving it their very enthusiastic support, and the outlook for the success of the work in this county is indeed very encouraging. This class is to be in charge of A. McKenney, who is now busily engaged in making the preliminary arrangements.

GERMAN GOVERNMENT FARM IN KENTUCKY.

It is announced that the German Government have acquired a large stock farm in Kentucky, and that the Berlin authorities will at once ship German stallions to America, to be bred to Kentucky mares for the production of cavalry horses for the German army. Several thousand young horses have, it is said, been purchased, which German army officers will immediately begin to train at the large training quarters to be established in connection with the breeding farm, and at the end of three years the officers will begin to train the products of the stud.

THE AGRICULTURAL COURSE AT PERTH.

In the town of Perth, Lanark Co., Ont., the agricultural high-school course, with its many associated features, is steadily growing in public favor as the idea becomes more thoroughly understood. Perth is an agricultural town, and, lying in the center of a rich farming district, its people are heartily in sympathy with any movement which makes for the betterment of rural conditions. By means of the local newspapers, by personal interviews, and in public meetings, the people of the adjacent townships have during the past month been rapidly acquainted with the objects of the course and its advantages. In a district so characteristically Scotch, it is not to be expected that the innovation will receive enthusiastic endorsement until its practicability is demonstrated, but everywhere there is indicated a willingness to co-operate with the Government and with the instructor, Mr. R. S. Hamer, to insure its ultimate success. The County Inspector is actively co-operating in the matter of giving publicity to the course throughout the county, and arrangements are being made with the Agricultural Society to give it prominence, both by free advertising in the prize-list and dodgers, and by allowing space for an attractive exhibit. The school board are determined to give the scheme adequate financial support, and having commenced alterations in one of the class-rooms to afford temporary accommodation, are prepared to make a liberal appropriation for equipment, and have acquired land for experimental purposes. A town office, excellently situated for the purpose, is in view, and will probably be opened in September.

EXECUTIVE MEETING OF CANADIAN SEED-GROWERS' ASSOCIATION.

A special meeting of the Executive Council of the Canadian Seed-growers' Association was held on July 5th, 1907, at Macdonald College, Ste. Anne de Bellevue, Que., for the purpose of transacting the business of the annual meeting for the association year, ending June 30th, 1907.

Heretofore the annual meeting of the association has been held at Ottawa during the month of June, but this year it was decided to change the date for holding this meeting to some time earlier in the year, when Parliament would be in session, and when for various other good reasons it would be more desirable to convene. The next regular meeting will, therefore, be held some time in January or February.

The members of the executive who were present were the President, Dr. Jas. W. Robertson; the Secretary, L. H. Newman; Prof. C. A. Zavitz, and L. S. Klinck, and Messrs. G. A. Gigault and W. L. Davidson. The Seed Commissioner, Mr. G. H. Clark, and Messrs. J. C. Cote and T. G. Raynor, of the Seed Branch, were also present, as were also several members of the college staff.

The President, in welcoming the officers of the association to Macdonald College and to Ste. Anne's, expressed the hope that the association and the College would co-operate, as far as possible, in the future in promoting the interests of good seed.

The report of the Secretary, as presented before this meeting, was a comprehensive treatise, dealing with the work in each of the six districts into which the Dominion has for convenience been divided.

The report gave the following summary of those affiliated with the association at the present time as follows, viz:

Total number of applicants	461
Number of old members reporting satisfactory	57
Number of old members failing to report	15
Number of applicants reporting satisfactory	24
Total number of members in full standing....	96
Total number now affiliated with the Ass'n....	557

While the above list is a substantial one, yet it was explained that the list does not give an adequate idea of the actual place which the work of the association is taking in the rural districts of Canada; as many farmers are carrying out the work themselves, independent of direct affiliation with the organization.

Reference was made to the general awakening of thought and practice along the lines which the association sought to encourage, and the various agencies which were responsible for this were designated.

During the year the principles of plant improvement have been applied under the direction of the association, in connection with practically all cultivated crops and in all Provinces. The results which have been realized from the system, and which have been given in the report in question, are noteworthy. While this report will be published in bulletin form, yet the matter contained therein was considered worthy of publication by the press. It was, therefore, resolved that extracts dealing with certain portions of the report which are of special interest be offered the public through the press from time to time during the summer.

Many important matters were discussed at the meeting, and a progressive policy was adopted for the ensuing year. The matter of field competitions and the utility of such in creating a greater interest in better crops was discussed, and the following resolution was passed, viz: That the council approves of the principle of holding field competitions of crops, and commends

the action of those agricultural societies which have arranged for such competitions as being one of the excellent means for encouraging the improvement of crops. It was also decided to prepare a collection of special selections, to be placed on exhibition at the Dominion Exhibition, to be held at Sherbrooke, Que., between September 2nd and 14th, 1907.

NEWS, INSTRUCTION, AND PRAISE.

Editor "The Farmer's Advocate":

We have just had a heavy rain, which was very welcome, as the grass and hay crops were making very slow growth, and, consequently, the hay crop will be short of last year. Many farmers are sowing corn, millet and Hungarian grass to supplement the hay crop. Where fall wheat was sown it is looking very promising. Spring wheat and oats are a good color, but rather backward. Barley and peas are doing remarkably well. Some early-planted corn had to be replanted, owing to the cold weather during May and first week of June, but later planting is growing very fast. Potatoes and mangels promise well. The prospect for apples is good, and these will no doubt be a full crop; while the crop of pears already set is very large. Plums and cherries are also well set, although some of the Japan varieties were badly winter-killed in the branches, especially Abundance and Burbank. Grapes are late coming into bloom. Strawberries, where not properly covered, winter-killed. Some varieties of raspberries also killed back, but are growing rapidly since the warm weather started.

Farm labor is still scarce, and any good laborer that is not afraid of doing too much work can get \$1.50 per day. More attention is being paid to intensive farming than ever before. The excursions to the O. A. C. are giving both men and women new ideas of making the farm pay, and with the practical lessons obtained from "The Farmer's Advocate," cannot but be of much benefit to every Canadian farmer who reads it, as all should. There is scarcely any work on the farm or home but is discussed through your columns. More power to your pen, say I.

The picture of my dear friend, R. Hamilton, in your issue of June 13th, was very true to life; also the brief notice of his career, as a fit representative to foreign posts of importance, shows him to be what he really was, a sterling honest man, and should stimulate the farmer boys of to-day to exert themselves to greater efforts to obtain like honors and esteem, by strict integrity in every sphere where they may be placed.

Orchard spraying has been in full blast for some time, and will be renewed again as soon as the blossoms fall. Many trees were seriously damaged through neglect of spraying last year, and the fruit-growers are trying to eradicate the bark-louse, which has proved so injurious the past year. It is hoped that the remedies applied, viz., lime, sulphur and salt, will prove successful, and that Ontario County can produce as good apples as any in the world.

R. L. HUGGARD,
Ontario Co., Ont.

THE AGRICULTURAL HIGH SCHOOL AT MORRISBURG.

The School Board at Morrisburg is to be congratulated for the enthusiasm manifested in the way they have taken hold of establishing agricultural education work in connection with their Collegiate Institute. They have purchased the old exhibition grounds, which consist of approximately fourteen acres. These are to be laid out into campus, walks and experimental plots, and the ingenuity of the agriculture teacher will be exercised to its limit in endeavoring to make them the most attractive educational grounds anywhere. The old gymnasium is given over for classwork in agriculture, and the teacher has the moral support of the whole town.

But the farmers, whom the institution is intended most to serve, are scarcely so enthusiastic. This may, in part, be due to the fact that the plan has not yet been properly brought before their notice, and it is hoped that when they come to realize what it really means, they will avail themselves of the opportunities which it affords, and give it their most hearty support.

The County Council was approached for a grant at its last meeting, and gave two hundred and twenty-five dollars. This is not very large, but when one considers that a council is a deliberative body at all times, that these men had never heard the plan set forth until the time they were approached for a grant, and that Morrisburg is at one end of three united counties that are on none too friendly terms at present, it is very satisfactory to learn that any support was given at all. A circular letter, sent out to the teachers, calling for names of prospective students, has been fairly well responded to, and it is hoped that with the assistance of the press and the public platform, the plan will be so well known within a short time that a good class will be on hand for the opening of the term in September.

J. W. Decker, Professor of Dairying in the Ohio State University and author of several valuable works on dairying, died recently of pneumonia, brought on, it is believed, by overwork.

Mr. A. J. Reynolds, of Scarboro, Ont., Secretary, was authorized by a local committee meeting in Toronto last week to correspond with other organizations anent the proposed Winter Dairy Show in 1908 or 1909. Another meeting may be held during the Toronto Fair.

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MARKETS.

TORONTO.

LIVE STOCK.

Receipts of live stock at the City and Junction markets last week were moderate. Choice stall-fed cattle are becoming scarcer as the season advances, and more would have found ready sale at good prices. Trade was fairly good in all classes.

On Monday of this week at the Junction, cattle receipts were 2,216; quality fair; trade good; prices easier. Exporters, \$5.65 to \$6, the bulk selling at \$5.85; bulls, \$4.25 to \$5; prime butchers', \$5.25 to \$5.40; good, \$5 to \$5.25; medium, \$4.65 to \$4.85; common, \$4.25 to \$4.50; milch cows, \$4 to \$4.6; export sheep, \$4.60 to \$4.75 per cwt.; calves, \$4 to \$7 per cwt. Hogs were firmer; \$6.90 for selects, \$3.65 for lights, with market firm.

Exporters.—Last week, prices ranged from \$5.75 to \$6.37½; the bulk selling at \$5.90 to \$6.12½; export bulls sold at \$4.50 to \$5 per cwt.

Butchers'.—Prime picked lots sold at \$5.85 to \$5.50; loads of good, \$4.85 to \$5.10; medium, \$4.50 to \$4.85; common, \$4 to \$4.25; cows, \$2.50 to \$4.50 per cwt.

Milch Cows.—Choice-quality milkers and springers are in demand at all times, but the market has not been as strong as usual. Best milkers and springers sold at \$45 to \$55 each; common to medium, \$25 to \$37.50.

Veal Calves.—Receipts large; trade brisk, with market strong, at prices ranging from \$3.50 to \$6.50 per cwt.; the bulk going at \$5 to \$6 per cwt.

Sheep and Lambs.—There was a brisk market for all sheep and lambs of good quality. Export ewes, \$4.50 to \$4.85; rams and culls, \$3.50 to \$4. Lambs sold at 8c. to 8½c. per lb.

Hogs.—Receipts were light. Prices advanced 15c. per cwt., selects selling at \$6.75, and lights and fats at \$6.50 per cwt.

Horses.—The receipts of horses at the Repository were larger than was anticipated. Trade was draggy for all horses that were not of good to choice quality. Nearly 200 horses were on sale, and dealers state that it is almost impossible to pay present prices asked by farmers, and make legitimate profits. Prices were quoted as follows: Drafters, 1,500 to 1,700 lbs. each, \$260 to \$325; expressers, 1,150 to 1,250 lbs., \$175 to \$200; first-class drivers, \$200 to \$250; saddle horses, 15 hands 3 in., \$175 to \$225; second-hand workers, \$75 to \$100; second-hand drivers, \$60 to \$100 each.

BREADSTUFFS.

Wheat.—No. 2 white winter, 50c.; No. 2 mixed, 88c.; No. 2 red, 90c. bid. Manitoba, No. 1 Northern, 97½c.

Buckwheat.—60c.
 Rye.—70c., nominal.
 Peas.—78c. to 79c.

Oats.—No. 2 white, 44½c. to 45c.
 Corn.—No. 2 yellow, 61½c. to 62c.; No. 3 yellow, 61½c.

Barley.—No. 2, 54c. to 55c.; 3X, 53c. to 54c.

Bran.—In bags, by the car, \$20 to \$21.50.

Shorts.—In bags, by the car, \$21 to \$22.50.

Flour.—Manitoba patent, \$4.05, on track; Ontario, 90 per cent. patents, \$3.45 to \$3.50; Manitoba firsts, \$4.75;

seconds, \$4.20 to \$4.25; strong bakers', \$4.05 to \$4.10.

COUNTRY PRODUCE.

Butter.—Trade steady; stocks are accumulating. Creamery, pound rolls, 22c. to 23c.; creamery boxes, 21c. to 22c.; dairy, pound rolls, 20c. to 21c.; tubs, 18c. to 19c.; bakers' tub, 16c. to 17c.

Eggs.—17c. to 18c.
 Cheese.—Unchanged; new, large, 12c. to 12½c.; twins, 12½c. to 13c.

Honey.—Strained, 12c.; combs, per doz., \$2.50 to \$2.60.

Evaporated Apples.—8½c. to 9c.

Beans.—Car lots, in bags, at Toronto, hand-picked, \$1.25 to \$1.30; primes, \$1.15 to \$1.20; broken lots, \$1.45 to \$1.55, hand-picked; \$1.30 to \$1.35 in bags.

Potatoes.—Old, easier, at \$1.25 to \$1.30 per bag, by the car, at Toronto; new potatoes, \$3.50 per bbl.

Poultry.—Market steady for good quality. Turkeys, 11c. to 15c.; ducks, 15c. to 20c. per lb.; chickens, 20c. to 25c. per lb.

Hay.—Baled, car lots, \$14 to \$14.50 for No. 1 timothy.

Straw.—Baled, \$7 to \$7.25.

TORONTO FRUIT MARKET.

Receipts of Canadian berries increased last week, the quality generally being fine. Strawberries sold at 7c. to 10c., by the case; green peas, basket, 40c. to 50c.; cucumbers, fancy, per doz., \$1 to \$1.50; cherries, \$1.25 to \$1.75 per basket.

HIDES AND TALLOW.

Prices are quoted as follows by E. T. Carter & Co., 85 East Front St., Toronto: Inspected hides, No. 1 cows and steers, 9½c.; inspected hides, No. 2 cows and steers, 8½c.; country hides, 7½c. to 8c.; calf skins, No. 1, city, 13c.; calf skins, No. 1, country, 11c. to 12c.; sheep skins, each, \$1.70 to \$1.80; horse hides, No. 1, each, \$3.25 to \$3.50; horse hair, 30c.; tallow, 5½c. to 6c.; wool, unwashed, 18c. to 14c.; washed, 23c. to 24c.; rejections, 17c. to 18c.

MONTREAL.

Live Stock.—The markets in Montreal were fractionally higher last week, prices being about ½c. up. Choice stock was scarce, and there was also a liberal consumption for the time of year. Some choice animals brought 6½c. per lb., though 5½c. to 6c. was the general figure for choice; fine, 5½c. to 5¾c., and good around 5c.; medium from 4½c. to 4¾c., and common below this range. There was a strong demand for calves. Prices ranged from \$15 to \$18 each for fancy stock; good, \$10 to \$12, and ordinary, \$5 to \$8, with common ranging down to \$3 or \$4 each. The demand for sheep was only fair. Prices about 4½c. for export; lambs from \$4 to \$6 each. Local market for live hogs steady; fair demand at 7c. to 7½c. per lb. for selects, off cars; other qualities, ½c. per lb., or so, lower.

Horses.—Demand appears to have fallen off considerably of late. Dealers say they rather look for this to occur during the summer months, and that it is hardly likely activity will be resumed until the fall trade strikes in again in a few months hence. There has been but a light demand from the railways for some time. However, dealers have practically no stock in the stables, although a few cars of very good horses are expected in shortly. Prices of good average stock are as follows, fancy qualities of each grade being higher, however: Heavy-draft animals, weighing from 1,500 to 1,700 lbs. each, \$275 to \$350 each; light-draft, 1,400 to 1,500 lbs., \$250 to \$300 each; express horses, \$175 to \$250 each; common plugs, \$75 to \$150, and choice driving and saddle animals, \$300 to \$500 each.

Potatoes.—The market is in an unsatisfactory position. Holders are ready to accept from 90c. to \$1 per 99 lbs., according to quantity. There is a good demand for new American stock, and prices vary considerably on it from time to time. Prices offered here for old stock are about 75c. per 50 lbs. track.

Butter.—Exporters are willing to pay 20c. to 20½c. per lb. for choicest, but cannot be had here at less than 20½c. to 21c. per lb. The above prices apply to Townships, Quebecs being 20½c. to 20¾c., and Ontarios being 20c., and dairies, 18c. to 18½c.

Cheese.—Shipments week before last amounted to 90,000 boxes, making a total of 520,000 to date this season, as compared with 649,000 for the corresponding period of last year. Finest Ontario cheese is quoted at 11½c. to 11¾c. per lb., Townships being 11¼c. to 11½c., Quebecs being 11c. to 11¼c.

Flour and Feed.—The feature of the market last week was the decline on Tuesday of \$2 per ton in the price of Manitoba bran. Demand has been rather light for bran for some time. Prices are \$19 per ton, bagged. Shorts are still in good demand, and prices hold steady at \$23. Flour is in fair demand, and prices are steady at \$4.50 to \$5.10 per bbl., in bags.

Grain.—The only grain of interest, locally, is oats. This is only in fair demand, but the supply is light, and as a result prices are rather higher than a week ago, No. 2 oats being 48½c. to 49½c. per bushel, No. 3 being 47½c. to 48½c., and No. 4 being 46½c. to 47½c.

Hay.—Dealers claim that the crops are looking nice, but that they will turn out somewhat under the average. Cutting will be two or three weeks late. Prices steady at \$16 to \$16.50 per ton for No. 1 timothy, \$15 to \$15.50 for No. 2, and \$14 to \$14.50 for clover.

Hides and Tallow.—There was a decided drop in the price of hides last week, beef hides declining a cent a pound, all round, and calf skins declining 2c. per lb. The decline was a general one, the markets of the world sharing in it, buyers not having been very eager of late, owing to high prices. Dealers are offering 7½c., 8½c. and 9½c. per lb. for Nos. 3, 2 and 1 beef hides, respectively, and 10c. for No. 2 calf skins, and 12c. for No. 1. Lamb skins show no change at 30c. each, and horse hides are still \$1.75 each for No. 2, and \$2.25 for No. 1. Rough tallow is 1c. to 3¼c., and rendered, 6c. to 6½c. per lb.

Eggs.—The market for eggs has been rather easy of late. Production has been very fair, but the hot weather has had a bad effect on the quality, and the loss in candling is considerable. Dealers claim to be buying at 15c. to 15½c. in the country, and sometimes at 14½c., and to be selling here at 17c., in a wholesale way, for straight candled stock, and 18c. in smaller lots. Selects are 19c., and more. Demand continues good.

CHEESE BOARD PRICES.

Woodstock, Ont., 17c. to 11¼c. Victoriaville, Que., 10c. to 10½c. Kingston, Ont., 11½c. for colored; whites, 11½c. to 11¾c. Madoc, Ont., 11 1-16c. Tweed, Ont., 11 1-16c. bid. Listowel, Ont., 11 1-16c. bid, no sales; Napanee, Ont., 11 1-16c. for white; 11½c. to 11¾c. for colored. Ottawa, Ont., 11c. for white, and 11½c. to 11¾c. for colored. Huntingdon, Que., white cheese, 10 15-16c. to 11c.; colored, 11 5-16c.; salted butter, 20½c.

CHICAGO.

Cattle.—Common to prime steers, \$4.75 to \$7.30; cows, \$3.25 to \$5.75; heifers, \$3 to \$5.90; bulls, \$3.15 to \$5.25; calves, \$3 to \$8; stockers and feeders, \$3 to \$5.

Hogs.—Good to prime, heavy, \$5.90 to \$6; medium to good, heavy, \$5.80 to \$5.85; butchers' weights, \$5.95 to \$6.10; good to prime, mixed, \$5.85 to \$6; light, mixed, \$6 to \$6.10; packing, \$5 to \$5.80; pigs, \$5.50 to \$6.20; selected, \$6.10 to \$6.22½; bulk of sales, \$5.80 to \$6.05.

Sheep and Lambs.—Sheep, \$3.75 to \$6; yearlings, \$5.50 to \$6.10; lambs, \$5.50 to \$7.35.

BUFFALO.

Cattle.—Prime steers, \$6.50 to \$7. Veals—\$3 to \$8.25.

Hogs.—Heavy, \$6 to \$6.49; mixed, \$6.40 to \$6.45; Yorkers, \$6.40 to \$6.50; pigs, \$6.50 to \$6.60; roughs, \$5 to \$5.40; dairies, \$6 to \$6.30.

Sheep and Lambs.—Lambs, \$5 to \$8.25.

BRITISH CATTLE MARKET.

London.—Values strong at 13c. to 13½c., being about ½c. higher than a year ago.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
 2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.
 3rd.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
 4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1 must be enclosed.

Miscellaneous.

GRUB IN HEAD—NODULAR DISEASE.

I had a ewe die last spring. First I noticed her getting thin and had a discharge from the nose, and died. I opened her, and found her bowels all covered with rough lumps, containing thick matter. On opening her head, I found short thick maggots in the back of the nostril. Please give me the name of this disease, and a cure.

A SUBSCRIBER.

Ans.—This appears to have been a combination of grub in the head and nodular disease of the intestines. Grub in the head is due to the sheep gaffly laying its eggs in the nostrils of the sheep in the summer, which eggs hatch out the grub which lodges in the head and sets up irritation, which may cause death. Preventive measures are most satisfactory; tarring the nostrils being as good as any. It is recommended to bore two-inch auger holes in a log or block of wood, place salt in bottom, and smear edges with tar, and the sheep help themselves. Some recommend as treatment holding the sheep's head back and filling the nostrils with tobacco juice, or with spirits of turpentine, making the sheep sneeze violently to dislodge the grubs. A darkened shed for sheep to lie in during hot weather is a good preventive provision.

Nodular disease, commonly called by butchers "knotty guts," is caused by a small worm, about an inch long, and for which there is no cure. Fortunately, its progress is very slow, and it takes years to kill a sheep, as a rule.

CAPACITY AND DIMENSIONS OF SILO.

1. I bought a silo that has been used one year; it is 14 feet across, 24 feet high, in one length. I notice in "The Farmer's Advocate" a twelve-foot silo is recommended. Would a twelve-foot silo be sufficient for 25 head of cattle of various ages as usually kept on a farm? How many tons of ensilage would the twelve-foot silo hold?
 2. How many acres of ordinary corn would it take to fill it? F. J. B.

Ans.—1. The size of silo recommended in our editorial (issue of May 30th) as likely to meet the needs of the average farmer was 12 feet in diameter and 30 feet high. Such a silo would hold 75 to 80 tons of silage. A silo of same diameter, but only 24 feet high, would hold 55 to 60 tons, or thereabouts. In calculating how many head of cattle this would suffice for, one must bear in mind that some men feed more largely of silage than others. It is a mistake to feed all the silage an animal will eat. For an ordinary farm stock, we should say an average of 30 pounds per head per day would be enough. Assuming a winter-feeding period of 200 days, this would require 3 tons per head, or 75 tons for the herd. If a little were left over, it would come in handy in mid-summer. Where one already has a silo of other dimensions, however, the case is different. If the 14 x 24-foot silo is giving satisfaction, well and good. Its capacity is practically the same as that of the 12 x 30-foot structure. The disadvantage of the wide silo is that with such a large area to feed from, the silage is liable not to be fed out quite fast enough to insure its being in first-class condition. It is desirable to take off a depth of about an inch and a half or two inches per day.

2. In the district (Southern Ontario) from which our correspondent writes, it would take but a very ordinary crop of ensilage corn to yield 12 tons per acre. With first-class manuring and cultivation, 20 tons per acre may be produced. Assuming a yield of 12 tons, it would require six or six and a half acres of corn to fill the 12 x 30-foot silo.



HOME MAGAZINE



Life, Literature and Education

[Contributions on all subjects of popular interest are always welcome in this Department.]

PEOPLE, BOOKS, AND DOINGS.

Mr. William Wilfrid Campbell, the Canadian poet, has now launched upon the sea of prose in a novel, "Ian of the Arcades." Mr. Campbell will contribute a series of articles to this department of "The Farmer's Advocate" during the fall of this year.

A new Canadian Art Club has been formed. The first exhibition will be held about the end of November.

M. Ravallier, C. I., of Paris, has invented an automobile that may be propelled on water as well as on land.

There was an interesting meeting at Windsor Castle lately, of the King of England, the King of Siam, and Mark Twain. King Edward very much enjoyed the American humorist's jokes. The account of the meeting will, it goes without saying, go down in literature—with variations.

The degree of LL. D. has been conferred upon Senator Coffee by the University of Ottawa.

Dr. A. S. Vogt has gone to Europe, where he will make preliminary arrangements for the trip of the Mendelssohn Choir to England in 1909.

Dr. Thaddeus Cahill has invented a new and interesting instrument, the telharmonium, by which music may be transmitted as by telephone, and may play to one hundred audiences at once.

An interesting mechanism, the taximeter, is now extensively used on cabs and automobiles in European cities. By it are automatically registered the distance travelled, amount of fare to be paid, and time lost in stoppages or breakdowns.

In Belgium, unmarried men over 25 have one vote, married men and widowers with families have two votes, and priests and certain other persons have three votes. Severe penalties are imposed on those who fail to vote.

The British Navy is largely manned by young men. Over half the crews are mere youngsters. Here are the official figures: Aged 15 to 25, 63,790 sailors (or 57.69 per cent.); aged 25 to 35, 36,160 (or 32.7 per cent.); aged 35 to 45, 9,350 (or 8.45 per cent.); aged 45 and over, 1,270 (or 1.14 per cent.).

King Edward speaks in several languages with facility, and on occasions when foreign delegates to learned gatherings in London are received by His Majesty, it is often the case that individual delegates will find themselves chatting freely in their own language with their distinguished host. His Majesty reads widely, as becomes the head of a great nation, and has followed closely all the recent scientific developments. It is stated that when he was sixty-one years old, the King applied himself diligently to the study of Hindustani, a language that few men would care to approach for any but sternly practical purposes. A

remarkable memory renders the mastery of a new language comparatively easy to him, however, and even the difficulties of Hindustani soon disappeared before the industry of the Royal student. The development of his memory, it is related, was one of the special sides of His Majesty's early education, and it was with him a nightly task, never omitted, to repeat to his tutor the names of people he had met during the day, and the circumstances of the meeting.—[Canterbury Times.]

Oxford University, England, on June 26th, conferred its highest distinction, the degree of D. C. L., upon

THE ILLUSIONS OF CHILDHOOD.

By One of the Boys.

Dreams of childhood—illusions and disillusionments—we all have them, from the time we learned the useless rooster could not possibly have laid that egg, up to the stage when fabric imaginings of worlds to be conquered and hearts to be won are dispelled by realization that there is no royal road to success in farming, commerce, war or love; that he who would excel must strive, and that only a very small piece of ice is cut by any one man, while the most of us are like drops of dew in

other men in the neighborhood were as clever as, and had made even more money than he. However, one vantage yet remained. There might be others as big and smart, but there certainly was none as good. "Pa" didn't smoke or get drunk or swear—at least not when we were around—never got "mad" without just cause, and was, in fact, a shining example to other parents and citizens. This last fond hope was cherished. No one could shake our faith in Pa's virtue, and Pa himself never shattered the ideal. It remained enshrined in our heart till age and reason convinced us that there must be millions of other boys in the world thinking the same thing of their fathers, and some of them, probably, not without equal cause.

It was the same with Mother. There never could be a woman equal to her. Whose house—unless, perhaps, it might be Grandma's—could compare with hers for comfort, cleanliness and completeness of furnishing? And who could touch Mother at cooking? Other boys' mothers made some things all right, but for all-round cooking and baking none could compare with Mother. No one criticised her pies, cookies and puddings. Her meats were always done just right, not scorched nor yet "raw," while she knew how to stir up a flour gravy that tasted even better than the meat. In fact, for a place where you could sit down and enjoy a full, satisfying meal, without gagging at custards that wouldn't go down, or spoiling your victuals by wondering who did the milking, and whether the bread was mixed with clean hands or not—"our" home was the place to come. It was the only place in the neighborhood where everything could be depended on being absolutely all right.

What a big place the world used to seem! They say that once, when I was not over five years old, father took me to market, some fourteen miles away. For a long time we chatted about the buildings, the black muley cattle, the white-faced Leicester sheep, the strange kind of chickens with the jaunty topknots, the high bridge, the great gully, at least thirty-five feet deep, and wonders increasing all along the road. Who would have dreamt that there were so many new and strange things to be seen in one day's drive? Nearly three hours we travelled, and at last the city burst into view, at the foot of a mountainous hill. Interest gave way to astonishment, which finally found expression in the since oft-repeated inquiry, "Say, Pa, is the world as big as this the other way?"

How a boy's mind develops! Well that it does, for he has much to learn. Think of the important facts of life he has to study and grasp, and how little help he often receives from those who should teach him the fundamental facts of self and sex. What a strange and foolish reserve exists between the parents and children concerning these things, even till the latter grow up, and what anguish and injury result!

My earliest recollection carries me back to hours of cogitation over what I understood to be the three great epochs of life: birth, marriage, and death. I was assured that I



The Boys.

"Please, somebody stole our clothes."

on General William Booth, head of the Salvation Army. This high honor was this year conferred upon a few others, including Prince Arthur of Connaught, the American Ambassador, the Prime Minister of England, the Lord Chief Justice, the Lord Chancellor, Lord Chas. Beresford and Sir Evelyn Wood. Things have changed mightily in the national estimate of Booth since he began his campaign years ago in that continent of sin and misery, the East End of London.

the ocean, and would be missed about as much.

But how we cling to the tissues of our dreams, and wanted to think that at least a shred of them might have some foundation in fact. What a wrench to childish pride it was to find out that father was not the biggest and strongest man! However, if not the biggest, he was still the smartest and the best farmer. But no, this, too, was disputed one day, and reference to father and mother only confirmed the dread boding that

had been born. I didn't know just when, but my impression was that this interesting event occurred when I was about two years old. Marriage would come next in the logical order of events, and this, they said, although quite a crisis, would be rather a pleasant one. Here I am reminded of my brother's opinion that there was never a girl like our own sister. For years after he entered the knickerbocker period he stoutly maintained that he never could marry any girl but Kate. He has changed his mind, I am pleased to see, and Kate is now another man's wife; so there are four happy people, instead of two. Somehow, sooner or later, we all find a fellow whose sister we like better than our own. Death, to me, was a grim prospect of the future, but so far distant and so overshadowed by the earlier crisis—marriage—that I found it possible to keep from worrying much about it. It is hard for childhood to take in the thought of death.

Schooldays are a large part of the Canadian child's years, and school, like after-life, is pretty much what we make it. To some it is cheerful and pleasant; to others a dread and a terror. I was of the latter class. The strange, rough boys; the strict teacher; the grim, formal school, with its door at one end, blackboard at the other, three windows on each side, and four rows of desks; the long silence; the turbulent recess; the cold dinner; the long absence from home; the sympathetic morning goodbye, which brought a lump to my throat that remained suspiciously near there all day—these impressions come back vividly as I write. "Stan," my younger brother, and I started together. The first day we hung it out till first recess, and came toddling home, tears giving way to smiles as we turned into the long lane from the road. What a fine place home was! How big and solid and safe the old brick house looked as it loomed up through the spruce! It seemed as though it could resist an attack of soldiers. And what a kind mother and father we had! Never had they seemed so tender before. They didn't tell us we would have to try it again—not that day. Next week they arranged that our favorite cousin Geordie, a seasoned veteran of some two years' school experience, should go with us. Thus reinforced, we sallied forth with new courage to do battle for learning and progress. This time we held out till noon. After many heartbreakings and many stomach pains, which seemed always to come on at half-past eight in the morning, we did get fairly launched on our scholastic career, and gradually, as the older boys dropped out, and we advanced in physical as well as intellectual prowess, and could hold our own in a fight with the other boys, or take a licking from the teacher without crying, school became a more tolerable place. But I'll never forget the day I decided to "not take arithmetic any longer." Arithmetic, somehow, didn't agree with my mental digestion. The endless adding and subtracting was discouraging. One day "Stan" beat me in doing the "questions," and I forthwith decided my forte was not arithmetic. Peter James, of the fourth class, had dropped geography; Nellie Christie had been "excused" from reading on account of her stammering, and Mary Rittenhouse was no longer taking history. Why shouldn't I stop arithmetic if I wanted to? But the test was to come. "Part Second, arithmetic," called the teacher. All went forward but me. "Willie, what's the matter?" "Bravely but weakly I replied, as the gaze turned my way, and a flush mounted to my forehead. "I'm not going to take arithmetic any more." "Why?" "Because I can't get along with it, and I won't need it; I'm going to be a farmer." "Nonsense, come up here with the class." Reluctantly I went, resolution melting like snow in August, and then I learned a great life-lesson, to wit, that the only way to dispose of difficulties is to overcome them.

I might tell very much more. I used to indulge, I believe, in some of the most stupendous flights of imagination that ever a boy conceived. Through the back of our farm ran a small creek, which, to my great disgust, had been straightened to a ditch. It ran to the Grand River, which in turn empties into Lake Erie. In the spring and after great rains it ran full, and even overflowed, being then large enough to float a raft. I used to start, in my mind's-eye, with a raft on this ditch and float down stream to the river. As the creek widened, my raft became a rowboat, then a sailing vessel, and by the time Lake Erie was reached it would be a steamer, an extra large and fast one, of course, especially designed according to original plans prepared by myself. First thing I knew, I saw myself steaming the ocean in a vessel compared to which the famous Great Eastern would have been a mere dingy. By and by the ship would be multiplied into a fleet, and I saw myself walking the deck, owner of the greatest steamship line on earth, carrying large cargoes, and giving a better freight and passenger service than any known before, and at a lower rate, doing this all by virtue of my marvellous success in cheapening the cost of transportation! There was not much airship talk in those days, or I would certainly have been scaling the heavens.

But the sea could not long claim my attention. The instinct of the farmer asserted itself, and I resolved to win my laurels on the land. Commencing as a bachelor pioneer in New Ontario or the Canadian Northwest, I would rapidly acquire more land, and soon own a farm comprising thousands of acres. When the pinnacle of material success had been attained, I would contrive to meet a lovely but homeless girl in some romantic manner, and a new era of happiness would begin. Amid other diversions, I planned a dairy barn, 280 x 260 feet, figuring out every detail in my mind, from the silos to the passages and stalls, without drawing a line on paper. The capacity of this stable was 800 cattle and 1,500 hogs.

Of course, I realized full well the stark absurdity of these day dreams, but they were very interesting, and, looking back, I have no hesitation in saying that the mental exercise of constructing them was an excellent thing. The time was spent to far better purpose than it would have been if given entirely over to games or to hankering after toys. It developed self-reliance, daring and initiative, qualities that have served me in good stead since. Moreover, it made me a student of principles and methods. Many a fact in farm economics I learned, and many a lesson as to the impracticability of proposed ideas, which many older men have not studied out to this day. My aim ever was to raise the intellectual standard of farmers and farm laborers. I wanted to do things in the most economical way, so as to be able to hire men, not for the lowest, but for the highest admissible wage. Money was not valued in the sense of acquisition, but in so far as it typified success and enabled me to accomplish greater things. I never wanted to be left money by a dead relative, nor to marry a rich girl. These two ambitions have been realized.

Refreshing it is, at times, to review the humors of childhood, with its disappointments and joys over things that seemed most important then, but look very trivial now. Say not that retrospect is useless; that the past is done and gone. Cherish the dreams of youth as the rarest of memory's treasures. For every happy experience I've had—yes, for the others, too—I count myself permanently the richer, and if—as I trust may not happen—but if the romance ever fades from my own life, I expect to enjoy the drama of real life around me, and live childhood anew in the budding promise of other young lives, for children we have with us always.

The Quiet Hour.

A GREAT RESPONSIBILITY.

Confess your faults one to another, and pray one for another, that you may be healed. The effectual fervent prayer of a righteous man availeth much. Elias was a man subject to like passions as we are, and he prayed earnestly that it might not rain; and it rained not on the earth by the space of three years and six months. And he prayed again, and the heaven gave rain, and the earth brought forth her fruit.—St. James v.: 16, 18.

"God is not dumb, that He should speak no more!
If thou hast wanderings in the wilderness
And find'st not Sinai, 'tis thy soul is poor!
There towers the Mountain of the Voice
no less,
Which whoso seeks shall find, but he
who bends,
Intent on manna still and mortal ends,
Sees it not, neither hears its thundered
lore!"

Did you ever face the awful thought of the tremendous power for good that God has put into the hands of each of His children? I call it an "awful" thought, because we have been warned over and over again that we shall be called to account for leaving undone the things we ought to have done; that we shall be punished if we allow our talents to rust in idleness; punished if we pass our neighbor by, in neglectful unkindness, when we see that he needs our help; punished if he starves at our side, while our hands are full of bread. And we have at our disposal the mightiest force for helping the world that can possibly be imagined. We all want to help the world, and very often lament that we are cut off by want of strength, time, money or opportunity from plunging into the battle against sin and misery. And, all the time, we let this glorious talent of prayer lie idle, or exercise it so languidly, hurriedly and faithlessly that it accomplishes scarcely anything.

Look at our text! Elijah was only a man like other men—only a countryman who had from childhood been drinking in the Spirit of God among the solitary hills of Gilead. Like John the Baptist, who followed in his steps, he was not clothed in soft raiment, not versed in the fashionable etiquette of kings' courts. When he saw the nation turning its back upon God, led by a wicked queen and a weak king, he did not use gentle words of pleading, but tried to wake the slumbering consciences of his countrymen by the strongest means at his command. He prayed a terrible prayer, prayed a long drought, which would inevitably plunge the country into the miseries of famine, and he was perfectly fearless about it. He suddenly appears upon the scene with his daring defiance of Ahab—a defiance which could not fail to provoke the wrath of the wicked king: "Elijah. . . . said unto Ahab, As the LORD God of Israel liveth, before whom I stand, there shall not be dew nor rain these years, but according to my word."

He must have felt that the disease was a desperate one when he resorted to such a desperate remedy. We may not feel tempted to exert power in that fashion, and surely he would not have dared to do it without a direct call from God; but St. James puts him before us as an example to be followed—an example of the prevailing force of earnest prayer for the healing of the disease of sin. Though Elijah, by his prayer, stopped the rain, it was not he, but Ahab, who brought trouble upon Israel. The story is all so wonderful, so like a tale of magic, that we hardly feel as if it applied to ourselves at all. Here is a prophet who, by his prayer, can stop the rain supply for more than three years, and then bring the rain in answer to his earnest appeal to God. He can stand by the altar of sacrifice, and look up in calm certainty that his prayer for fire from heaven to consume the victim will be answered. We cannot do these things, and it would be sinful presumption to put God to the test, and expect Him to work miracles for us. We know that Elijah was not acting presumptuously, for he simply obeyed God, without doubting His power to work miracles through any instrument He might choose.

We read in 1 Kings xviii, that "the word of the LORD came to Elijah in the third year, saying, Go, shew thyself unto Ahab; and I will send rain upon the earth." He was not putting God to the test and seeking miraculous signs from Him, He was simply obeying orders with soldierly promptness and child-like confidence. But—his whole soul had been stirred into a fiery indignation against sin, a great jealousy for God's honor and glory, and a burning desire to bring Israel back to its lost faithfulness. God did not pick out a man haphazard, and use him as an instrument for reaching His people. The man chosen was indeed subject to like passions as we are, but he was full of zeal for God, and had prayed long and earnestly for the evil around him to be cured. If he had shaken his head sadly over the idolating of his neighbors, and decided that he could not help it, God could hardly have used him to work a reformation.

If you want to help in the battle against sin that is being waged by the great army which follows One riding upon a white horse—One whose eyes are as a flame of fire, and whose vesture is dipped in blood—then you must be tremendously in earnest, as Elijah was. You will never work wondrously with the mighty weapon of Prayer if you are content to plod through the wilderness of life with your eyes seeking only manna for yourself. If God wants to send you on His errands, wants to send His messages by you, you must be always standing in His presence, always listening for the still, small Voice, which is unheard by anyone who allows himself to be absorbed in the cares and pleasures of this outward, visible life.

It was perfectly natural for Elijah to say: "As the LORD God of Israel liveth, before whom I stand." He could not see God, any more than we can, but he had lived in such constant communion with Him that His Presence was not a misty possibility, but the one great Reality of his life. This is within our reach too. We can form the habit of letting the remembrance of God be crowded out by visible things around us, or we can form the habit of realizing His Presence in every quiet moment. When the hands are busy kneading the bread, or the body is bent over a wash-tub, the heart can rise in glad communion with an unseen Friend. Take the potatoes to be peeled, or the pan of peas to be shelled out under a shady tree in the yard, and you will find it much easier to lift up the heart to God than if you sit down in the hot kitchen. It is far better for the body too.

You all lead busy lives, I know, and it is not easy to find time for long prayers. Has God ever asked us for long prayers? If you care about your brothers' needs, if you want them to be healed, if you really believe that your prayer can bring down showers of blessing on a thirsty, parched world, you can't help praying. If the promises about prayer are not true, then life is not worth living, for God must be either powerless to help us, or untrue to His promise. But we know that He is true, and mighty to save; and, as St. John reminds us, "This is the confidence that we have in Him, that, if we ask anything according to His will, He heareth us: And if we know that He hear us, whatsoever we ask, we know that we have the petitions that we desired of Him. If any man see his brother sin a sin which is not unto death, he shall ask, and He shall give him life for them that sin not unto death."

The example of Elijah is an example of eager, persistent, faithful claiming of the gifts God wants to give us—gifts for ourselves and for others. He wants to soften hard hearts, to strengthen weak faith, to arouse joyous eager love; but He cannot force these glorious gifts upon us. We must earnestly desire them, and prove our desire by determined pleading. We must pray as Elijah prayed for the blessing of the rain on the parched and barren fields. Think how he "cast himself down upon the earth and put his face between his knees," in lowliest supplication. Think with what unshaken confidence in God's swift answer to his prayer he, seven times over, sent his servant to watch for the cloud which must be coming. God had said that He would send the rain, therefore he prayed the more confidently. And God has said to us that He will give His Holy

Spirit to those who ask—ask as the importunate widow asked, who would not accept a refusal. Are we asking with all our might? Think of the mighty power of Niagara, that has been running to waste for so many thousands of years, but is now doing such wonders in obedience to man's will. The power was there all the time, and the need was there too. So it is in this matter of prayer. God stands ready to work mightily, by the power of the Holy Spirit, in us and through us. If He is not reaching the world through us, it can only be because our prayers are weak and lifeless, because we are not keeping in daily, hourly touch with Him—and we can only keep in touch with Him by earnest effort—prayer is not easy to anyone.

"No wonder the day seemed so lengthened,
And its burdens so heavy to bear,
And I so impatient and fretful,
When I ne'er offered one word of prayer!
God pity the soul that is living
So far from his Father away,
That in all of life's bane and its blessing
He never once thinketh to pray!"

HOPE.

The Ingle Nook.

Floor Paint—Queries.

Dear Dame Durden,—I have been thinking letters to you for some time, but in some way they never materialized. I so often think I would like to go to the Ingle Nook with this or that perplexity, but I simply do not get the time.

First, I will send you my recipe for floor paint, which I have used for some years: Five pounds of yellow ochre dissolved in enough soft water to make as thick as cream, whites of six eggs beaten stiff, ½ pound glue dissolved in warm water. Mix thoroughly, and have just thin enough to spread well. Put on your floor, and, when dry, which will be in a few hours, go over with hot linseed oil. It will look far better in a week or two than it does at first, as it turns darker. It is cheaper than the mixed paint, and I like it better.

Now, I would ask someone's advice about making a tent. Could anyone give me directions as to what it should be made of, etc., also would it pay to try to make one, or could one be bought just as cheap?

Now, I have another question I would ask: Which do you think the safest place to send a boy to school, to a college or to our home town to high school? He will, of course, have to board. Where do you think he would meet the most temptation? I am asking you, Dame Durden, because I know you are wise, and I am asking any mother who has, perhaps, had experience. Trusting my letter will be kindly received, I will sign,
INQUIRER.

Elgin Co., Ont.
Tents are usually made of special duck, although small ones for children are often made of drill or denim. Can any reader give directions for making? You can buy palmetto tents, 7 x 7-foot base, for about \$8, and wall tents complete, made of duck, 7 x 7-foot base, with center-pole, 7 feet high, for about \$8.50. Larger ones, of course, cost more, while very small drill ones for children may be got for \$2.

In regard to your boy, I would say that some good school with a residence attached should be the safest; that is, provided the boy cannot board at home. You will find these schools advertised in nearly all church papers. . . . My dear, I wish I were as wise as you think. There are so very many things to be wise about, aren't there?
Many thanks for the floor-paint recipe.

Window Shades.

M. E. B., Essex Co., Ont., asks how to make buff window shades a pretty green. My sister, last year, painted some light shades a dark green inside. Some of the transparency was lost, but the necessary color and coolness was secured. She used the ordinary paint that may be bought in small tins, and put it on with an ordinary paint brush.

Ice Cream Made by a Professional.

The following from E. French, of the Woman's Bakery, 430 College St., Toronto, will be much appreciated:

"I have just read in this week's issue of 'The Farmer's Advocate' 3 or 4 contributed formulas for making ice cream without a freezer. Now, if you will excuse a letter written with a pencil, I will tell you how to make ice cream (not ice milk). I can't understand a farmer using milk when he is in a position to have the sweetest and best cream at a small cost. Pure cream, 36 hours old, will almost double itself in the freezing, where milk and cream will remain the same bulk; so, using all good cream is really the cheapest and by far the best. In the first place, it will be well for you to know that it is the water that accumulates that does the freezing. So do not pour off the water until the cream is frozen; then you pour it off, and add more salted ice, and the finer you crush the ice, the quicker the cream will freeze. Adding a liberal supply of salt also causes the cream to freeze quickly. Have your tinsmith make a flat-bottom can, say 12 inches deep and 5 inches in diameter. Now have him make a plunger made to fit the inside of can, with a collar in the center large enough to put a broom handle in 2 inches, broom handle to be 20 inches long. Drive a small nail through collar into handle to prevent it coming out. Now, cut one-inch holes in the plunger, say about four of them, and your ice-cream freezer is complete. Put in your cream, 6 ounces of sugar to every quart of cream. After it is frozen, it can be flavored and colored to suit your fancy.

Set can in an ordinary wooden pail, and pack the ice around it; put in cream, and pump with plunger just the same as you made butter at one time. You will be surprised at the results. Remember when the cream begins to stiffen is when it commences to get good, so don't stop until the plunger commences to lift the cream. I have made cream this way for over fifteen years, as much as 5 gallons at a time. E. FRENCH."

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4197.—Misses' and Girls' Guimpe, 7 sizes, 4 to 16 years. Over this may be worn suspenders of silk or velvet to match the girdle, or one of the popular "jumper" waists.



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Address: "Fashion Department," "The Farmer's Advocate," London, Ont.

HOW SOME CLEVER WOMEN MANAGED THINGS AT SEBRINGVILLE.

The time was when women's societies were the fussiest things in creation, without system, capable management, or, it must be confessed, any great interest. But a great change has gradually crept in, and to-day many women organize and carry on societies in a way that would do credit to men. Of these societies, perhaps the most useful, so far as the home is concerned, is the Women's Institute. Begun only eight years ago with two organized districts, and only one Institute in each, this organization now comprises over four hundred branches scattered throughout seventy-eight districts in Ontario. Its object is to raise every condition in connection with the home to a higher plane. It essays to teach how labor may be lightened in the house, how to cook foods in the most appetizing and nutritious way and at the least expense; how to make butter as nutty and sweet as it should be; the cultivation of vegetables and flowers, and the care of poultry; taste and beauty in house furnishing; home nursing, and a score of kindred subjects.

Nor is the ethical and intellectual side of the home forgotten. Child-training, the atmosphere of the home, the social life, are by no means overshadowed by the medley of subjects brought up for discussion at the meetings go on. The women who attend these meetings do not go to show off what they know; they are students one and all. To learn and to impart what they learn is their great and unselfish object; and in the sessions of the various societies they find a constant stimulus and inspiration.

The latest nucleus of a Women's Institute for this part of the country has just been started at Sebringville,—and because of that exceedingly embryonic state, not because Sebringville or its sprouting society possesses any advantage over the four hundred and odd other places with their societies which exist throughout the Province, has it been chosen as the subject of this journalistic peroration. The starting of all branches of the Institute is practically the same, and an account of what went on at Sebringville at that tenth of July meeting may possibly be a bit of yeast which shall set other societies a-ferment. After all, it isn't hard to start a Women's Institute if you once set about it, and, in the words of one of the good Tavistock ladies who came over to help spread the work at Sebringville: "If you start a branch of the Women's Institute, you will not want to give it up."

The women of Sebringville had been green, very green—but only in regard to what that vague term, "Women's Institute," means, you understand. Some of them had heard of such a thing, but that was all; others had no idea at all about it, and imagined, so we were told, that it was some sort of religious institution. However that may be, we found a company of some thirty-five very ex-

pectant, intelligent-looking ladies assembled in the Foresters' Hall, waiting to see what was to come. Was it so—or did we only imagine that several faces brightened visibly as a big "beef" chart was unrolled and hung on the wall, and a medley of pots and pans,—but we anticipate, and that will never do.

The meeting was opened by the presiding officer for the district, Mrs. Bell, of Tavistock, a bright little woman, heart and soul in the work, who introduced Miss Rose and Miss MacMurphy, the ladies from the "Department" at Toronto, who were to organize the society.

The plan chosen was to have a regular Institute meeting, and after it, the organization and election of officers. Accordingly, after the repeating, in unison, of the Lord's Prayer, a short opening address by Mrs. Bell, and a selection on the piano by one of the young ladies of the vicinity, Miss MacMurphy was called upon to go on with one of the topics for the day, "The Cooking of Meat." Miss MacMurphy, it may be explained, is a graduate of the Macdonald Institute, and is one of the ladies chosen to make yearly tours throughout the Province to help in the organization of new branches, or to give demonstrations by way of inspiration and instruction at the old ones.

Having put up her beef chart showing the various cuts of beef, and taken so many utensils (including a little alcohol cooking lamp) and tea towels out of her travelling bag that one wondered how she ever packed them or how she could possibly get them all in again, Miss MacMurphy began her address.

It is of great importance, she said, to know how to cook meat properly, because it is our chief muscle-forming food. Many other kinds of food are, of course, necessary. Fruits and vegetables, for instance, contain salts and acids, which tone up and invigorate the system; fats, and the carbohydrates (starch and sugar) are necessary to give heat and energy; but these are not enough; we must have muscle-forming foods to build up the body and keep it from wasting away. Such foods must be very rich in proteid. Among them are eggs, milk, cheese, etc., but meat is the best source. Cheese, for instance, contains much proteid, but in a form so concentrated that it is hard to digest, and hence less of it can be used.

Having granted, then, that meat is a very important item on the food list, it is necessary to know how to prepare it, else much of its palatableness and nutriment may be lost. If we examine lean beef closely (presumably under a magnifying-glass.—Ed.), we find it to be made up of bundles of fibres, each fibre of which is in turn made of a number of fibrils, each of which is simply a small tube filled with muscle-juice, the nourishing part of the meat. This juice, by the way, consists of water, mineral salts and extractives, all indispensable to the human body.

Digestibility is largely a matter of solubility; the more soluble a substance, the more easily it is digested. As meat is more soluble before cooking than after, raw meat is, of course, the most easily digested. Meat must, however, be cooked, both to increase its palatability and to destroy harmful germs which may possibly lurk in it. Our aim, then, should be to cook it as little as possible, just enough to render it appetizing and wholesome without destroying its digestibility. Above all things, the juices must be kept in, and this is effected by hardening the outside very quickly, thus making a sealed case, as it were, inside of which the juices may cook to the required degree.

PAN-BROILING STEAK.

The demonstrator now proceeded to show how to cook steak to keep it tender. Taking a piece of steak, she trimmed off the fat. Steak, to be good, should be sirloin or porterhouse, and the fat should all be taken off; otherwise each fibril becomes coated with grease, and so the meat becomes far more indigestible. Proteid is digested in the stomach, fat in the intestines. If the particles are coated with fat, the digesting juices of the stomach have no chance, else double duty is thrown upon the intestines. Moreover, when grease is heated to a very high temperature, it is broken up, and a very disagreeable, irritating acid is developed, which is likely to set up disorder. Another argument against frying in grease, which will scarcely be lost

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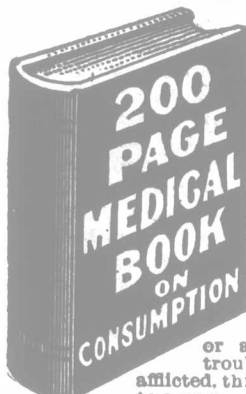
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Advertise in the Advocate

upon the housekeeper, is that by omitting it the kitchen may be kept cleaner: pan-broiled steak throws off no smoke.

The demonstrator here took up the slice of meat and threw it deftly upon a very hot, dry frying-pan (which, by the way, had been heating over the alcohol lamp). As soon as it was quite seared—simply whitened, not cooked—upon one side, she deftly turned it over, still using her fingers, in order, as she explained, to avoid using a fork, which at this stage would let out some of the juice. After the preliminary searing, the steak was permitted to cook until nicely browned, about eight or ten minutes, and was then seasoned for serving.

The straggly end of a porterhouse cut should be cut off and used for stew. Round steak, which is tougher than sirloin or porterhouse, may be cooked in several ways. One way is to sear, then brown it in the pan as above, then pour a little water on, cover, and let simmer all morning. Just before dinner, take out the meat, make a rich gravy in the pan, lay the meat in again to reheat, and serve.

One reason for meat being tough is that, as a rule, it is not hung long enough after the animal is killed. When kept for some time, a certain acid, which acts on the stiffening substance, is developed, and the fibres become more tender. Meat should, in fact, be kept from ten to fourteen days in a clean, cool place before being used. A refrigerator is the best place. . . . Miss Rose here remarked that although in hot summer weather, this keeping may present some difficulty, in winter there is no excuse for having it tough. It should not, however, be permitted to freeze. . . . Continuing, Miss MacMurchy said that good beef is always of a bright red color and elastic consistency. Meat that is dark in color, and has deep yellow fat, should always be avoided, as these may be signs of disease.

ROASTS AND STEWS.

Practically the same principles apply to roasting meat. Roasts should first be put into an exceedingly hot oven, seared and browned, and then be permitted to cook more gradually.

The best way of cooking tough meat is to stew it. Put it in cold water, and let simmer (not boil, which ruins it) for three hours. Or you may make "potted meat" of it, or put it through a meat grinder, and make it into some palatable dish that way. Cooked meat may be used up in many ways. To make "Rissoles" take one cup of cooked meat chopped fine, or put through a grinder, one-half cup bread crumbs, a little onion juice, and seasoning to taste. Moisten with tomato juice, or gravy, mix well together, and press firmly into buttered moulds. Do not cook in the moulds, but turn out on a baking-pan, then bake in the oven until well browned. For seasoning, you may use, beside salt and pepper, sage, celery salt, or any other that you prefer. . . . With these rissoles, serve tomato sauce. As tomato sauce is based on cream sauce, the recipe for the latter was first given.

Cream Sauce.—Take two tablespoons of butter, two of flour, 1 teaspoon (level) of salt, one cup of milk. Melt the butter and stir in the flour, until it is frothy; add the milk, and stir till thick. . . . To make tomato sauce, simply substitute strained tomato juice for the milk.

Rice Casseroles.—One cup of boiled rice, two cups chopped meat, and seasoning. Line a mould with the rice, fill in the meat, cover with rice, and steam till thoroughly heated. Serve with tomato sauce.

To keep steak sweet for a time while raw, rub it with a mixture of olive oil and vinegar, then put in a cool place.

. . . . In concluding, Miss MacMurchy remarked that it is very necessary to know the cuts of beef by sight. The best way to learn is by examining them in a butcher's shop. The shin and shank are chiefly used for making soup.

QUESTIONS.

Q.—Do you ever serve gravy with spoiled milk?

A.—To be sure, try out some fat in another pan, and make the gravy separate.

Q.—Do you think the water always should be put on the meat?

A.—If you want to keep the juice in the meat, sear it first by using hot water, and then you want a regular

stew with a very rich gravy, put the water on cold. For a pot roast, always put a little boiling water on.

Continuing, Miss MacMurchy told how to make Brown Stew: Cut the meat into inch cubes, and brown thoroughly in a frying-pan. Cover with water, and simmer two hours. Add one-half cup of carrot cut in cubes, also one-half cup turnip and one cup potato, all cut into cubes, and cook half an hour longer. Thicken and serve. If you wish, you may put some dumplings in this stew, or you may split some baking-powder biscuits on a platter, and pour the stew over. Suet dumplings may be steamed separately, and the stew poured over before serving.

Miss Rose remarked that young dandelions make excellent "greens." All greens, beet tops, spinach, etc., are good for the blood. Lettuce may also be boiled in this way.

ADDRESS BY MISS ROSE.

Miss Rose, who is well and most favorably known in Institute work, took as her subject, "The Influence of Environment." It is necessary to remember, she said, that the Women's Institute does not give all its time to cooking. Learning to prepare foods is an important matter, but there is other work to be done, and the field is very large. Coming to her more especial topic, she remarked that we have no control over our birthplace, a matter which means more to us than we think. People who live in the mountains, for instance, are noted for being courageous, optimistic, contented; people who dwell on the plains, on the contrary, are likely to be morose and melancholy. We will see this if we compare the people of the Highlands of Scotland, or of Switzerland, with the plain-dwellers of Russia.

Every district and every city has its own particular atmosphere. In Boston, it is one of learning. People there ask, "How much do you know?" In Philadelphia, rank, not learning, is worshipped, and the question is "Who was your father?" In New York, people will move heaven and earth to find out what your bank account is.

In going through the country, the Institute workers find very different "atmospheres" in the different places. In one, the people all seem to be jolly, free and easy, and full of humor; in another, perhaps only six miles away, you might tell your richest joke, and you'd think it was Sunday evening in a Scotch Presbyterian church. . . . If you are making a change in your abode, be sure to find out about the environment.

THE INFLUENCE OF HOME SURROUNDINGS.

The motto of the Institute is "For Home and Country." We should see what our home influence is. When we are providing for beautiful lawns, flowers, pleasing interiors and all the conveniences possible, we are offering our children a premium to stay at home. When we spend the money on extravagant dress for them, we are offering them an inducement to go away that they may show off their clothing. Not long before, the speaker had seen a little girl of four dressed as for a Dolly-Varden show, in blue and tan from head to toe, with a hat laden with ribbons and flowers, and all out of harmony with the sweet innocent face. Such a child should have had a white frock and a simple hat, with a ribbon on it. Brought up in a home of extravagance, one may foretell what she will be at twenty. No wonder our young men hesitate to marry, when they see so much extravagance on every hand.

The ancient Romans placed statues of their great men as an inspiration in their houses. The speaker thought this plan might be copied. If she could have one statue in her home, she said (and now we know her politics!) it would be of Gladstone. . . . We should be very careful about our pictures. The subjects of them should not be dismal. We see enough gloomy things in life without perpetuating them in frames. Pictures should represent flowers, lovely women and children, or peaceful landscapes. Pictures have a great influence over the emotions, especially of children. There is a time coming, she thought, when the Women's Institute will be so strong that it will demand that posters and newspaper illustrations will be of a higher order. After good humoredly ridiculing the

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"Buster Brown" type, the speaker concluded this part of her subject by saying that such illustrating should not be permitted in the country. We must hold out for what is highest in art and morals.

We should be particular about wall papers, which have a great influence over our state of mind. Clear, neutral tints should be chosen, not dark, gloomy colors which absorb the light.

Miss Rose dwelt strongly upon the prenatal influence of mothers. She foretold that the time is coming when the duties of motherhood will be taught in the schools. Mothers should see to it that they do not start their children in life handicapped by wrong dispositions. It is a crime against the child not to let the prenatal influence over it be one of good humor, honesty, truthfulness, gentleness. One advantage of the Women's Institute is that in it women can discuss topics which they could not freely talk upon elsewhere.

Many a mother gives her children lessons in dishonesty. Such careless things as eating a candy or two out of a box in a store, and handing one to a child may set growing in him a germ of dishonesty, a tendency to take what is not his. Mothers also often tell untruths to their children. They make extravagant threats, which they certainly do not intend to carry out. "Mary, come in out of that mud or I'll skin you alive," one shrieks, a threat which is not likely to be carried out. It is a mistake to threaten a punishment which cannot be given. Children's faith in their parents must be kept strong.

If we place around children an environment that tends toward good, they are not likely to wander far astray when they go out into the world, and if they

should happen to, they are very likely to return to the early training. It is a great thing that parents may leave upon their children impressions which will act upon them as long as they live.

THE ORGANIZATION OF THE SOCIETY.

Coming to the business part of the meeting, Miss Rose explained that the yearly fee is twenty-five cents, the money being retained by each local Institute for its own use. Paying this fee, while conferring membership, does not entail that the member is compelled to attend or to take part in the meetings, but it gives the privilege of attendance and of receiving, otherwise free, the literature sent out by the Department to all members of the Institute. Each society must hold four meetings a year, but the number outside of this is regulated by each to suit itself. Most of the branches meet once a month. These meetings are entirely conducted by the members of the local branch, except at such times as ladies are sent by the Department for annual conventions. A yearly Government grant is sent to each branch to help on with the work. Requests for someone to be sent to organize new branches may be sent to Mr. Geo. A. Putnam, Department of Agriculture, Parliament Buildings, Toronto; but the presiding officer for each district is also empowered to organize.

After all this had been satisfactorily explained, the question of having a Women's Institute at Sebringville was voted on, carried, and officers were elected. Hoping this account may encourage the starting of many more branches throughout Ontario, Believe me, readers of the Home Department, very sincerely in your interest.—Editor.

and was on the ocean on her way home when the death occurred.

Current Events.

The feeling of unrest in India has now spread to the higher classes.

Russia will spend \$15,500,000 on new warships in the next three years.

A peasant insurrection has again broken out in the vicinity of St. Petersburg, Russia.

Sir Wilfrid Laurier and party set out on their return trip from the Old Country to Canada on July 13th.

A commission of three has been appointed to determine the competency of Mrs. Mary Baker-Eddy to conduct her own affairs.

King Edward has granted pardon to Col. Lynch, who was convicted of high treason for fighting on the side of the Boers during the South African war.

As a consequence of the wrecking of the balloon-house at Spitzbergen, by a storm, the Wellman expedition to the North Pole will be delayed until the first of August.

A military airship recently manoeuvred for nearly three-quarters of an hour, and with perfect success, above Paris. Twenty similar ships are to be constructed and stationed at fortified towns along the eastern frontier of the Republic.

It is said that before the end of the year wireless communication for commercial purposes will be established between Ireland and Canada. The wireless station at Knockree, on the west coast of Ireland, is now nearing completion.

Dr. Yeland Oronhyatekha, son of the late Supreme Chief Ranger of the I. O. F., died suddenly last week at his residence, The Pines, near Deseronto. His wife, who is a Norwegian, had been on a visit to Norway.

An organization whose work is of no small value to Canada is the Dominion Educational Association, which aims not only to promote all affairs educational, but also to promote a feeling of brotherhood and a singleness of purpose in the teaching profession throughout the various Provinces. The sixth triennial convention of the Association was opened in the Convocation Hall of Toronto University on July 10th.

By the opening, on July 8th, by the Hon. Rodolph Lemieux, Postmaster-General, of the new lock at Kirkfield, Ont., connection was established between the waters of the "height of land," in Victoria County, and the lower waters flowing into Lake Simcoe, and hence a great step towards the completing of the long-talked-of Trent Valley Canal has been accomplished. The lift-lock itself is an object of much interest. Its steel central or guide tower is 94 feet in height, and the lift measures 48 feet 6 inches. There is now a total of 160 miles, direct and lateral, opened up in this district, and fourteen locks have been constructed.

ONLY A BUNDLE OF PATCHES.

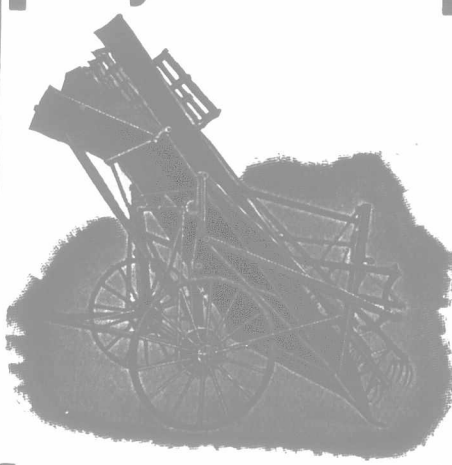
It's only a bundle of patches,
Of every varied hue,
Remnant of baby dresses,
Tied with a band of blue,
It's only a little cart wheel,
It's only a tiny boot,
Only a dress of tartan,
And a faded brownie suit.

Fondly I linger o'er them,
Thinking of days long past,
Thoughts of the boy who wore them
Fill up my heart's unrest.
I see him yet in fancy,
With his bonnie boyish face;
He was the foremost laddie,
In every childish race.

I listened, with pulses thrilling,
As he told of his college games,
Of his daring crows' nests robbing,
And I loved him just the same,
But our Father loved him also
And called him away from me,
Leaving me but a remembrance
And this bundle on my knee.

Quebec. JAUNITA.

THE GREAT DAIN Hay Loader



The question of price is the last point considered by the up-to-date farmer who is going to buy a Hay Loader.

He realizes that the weather plays an important part in haymaking, and wants the machine that, in his opinion, will put away his crop in the shortest time, and with the least trouble and expense for repairs.

That's why tens of thousands of farmers are using the Dain Loader.

They like it because it takes up the hay clean from either swath or winrow, handles it quickly, and puts it on the wagon in first-class condition.

The stroke of the rakers is oblong. The rakers are in contact with the stubble about twenty inches of stroke. It is not necessary for them to run as rapidly as loaders having a circular motion. Therefore it rakes cleaner than any other.

Throat opening adjusts itself automatically to weight of hay.

Don't forget that the Dain Loader can be operated by one man. That's a mighty good point, one that should interest any one short of help. This one-man loading has been demonstrated many times.

Better ask right away about this Great Dain Loader.

Write for circulars

The Dain Mfg. Co., PRESTON, ONT.

The Fairbaird Co., Winnipeg, Man., Western Agents.
Phelps & Smith, Montreal, Can., Gen. Agents Prov. Quebec.

Advertisements will be inserted under the heading, such as Farm Properties, Help and Situations Wanted, Pet Stock, and miscellaneous advertising.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for five words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

FOR SALE—Farm 170 acres, lot 20, 3rd concession, West Flamboro, County Wentworth, 6 miles from Hamilton, 2 1/2 from Dundas. Two barns (one bank); two houses; orchard; 17 acres timber; well fenced; spring creek and wells; best soil—high state cultivation. One of the best farms in County. Apply to Mr. Morden, on premises, or A. B. Wardell, Dundas, Ont.

I WANT to correspond with farmers or producers of onion sets to give contracts. Address: J. T. B., 122 St. Pierre St., Quebec.

SCOTCH Collie puppies two and five months old. Sire imported Craigmore Clyde, ex bitches that produce workers. Prices six to ten dollars each. W. J. Johnston, Box 246, Meaford, Ont.

WANTED—A few good subscription agents for The Farmer's Advocate and Home Magazine. Liberal terms. The William Weld Co., Ltd., London, Ont.

WANTED—Ladies in rural districts desirous of engaging in profitable business will do well to write the Robinson Corset & Costume Co., London, Ont.

BIRDS
Morgan's Song Restorer will bring your birds back to health and song, 25c. postpaid. Bird Foods, Cakes, Books, Canaries and Gold Fish. Free article on Feeding and Care of Birds.
DOG
Supplies, Books and Medicines



GOSSIP.

Mr. Robert McEwen, Byron, Ont., near London, writes: "I am pleased to be able to advise you that I am in grand shape this year to supply those looking for Southdowns. Next month there will be an offer of 40 prime breeding ewes, all having had lambs this year, and their lambs are here to show what excellent producers they are. A few shearing rams and ewes of nice type and in good breeding condition are also for disposal. This year's crop of lambs, by imported rams, Babraham Hodge, Babraham Glory and Ciceter, are the best I have ever had, those from the twelve ewes imported last year being a particularly good lot.

"The trade for collies has been very satisfactory, with nothing at present to sell. Notwithstanding statements in the press to the contrary, my correspondence shows that the well-bred collie is a worker, and as a guard and a faithful companion, he is unequalled."

CANADIAN HORSES AT THE INTERNATIONAL SHOW.

Hon. Adam Beck, who has recently returned from his trip to England—Old London, where he was the only Canadian exhibitor at Olympia—expresses himself as more than pleased with the success of the Canadian horses at the great world's show. "It was the greatest display of horses and the largest attendance at an event of the kind in the world's history," he said. One feature that pleased him even more than the winning of numerous prizes was the great interest shown in the Canadian horses, and the enthusiasm displayed when they won. When a Canadian horse took a prize, there was quite an ovation, and this was especially the case when the London (Ontario) Hunt team won in the hunt-class, and also when the first prize was secured in the Corinthian class for the best qualified hunter ridden by officers or gentlemen in hunting costume. Kakabekan defeated both the English champion, Whisky, and the Irish champion ridden by Lieutenant Dufresne, the noted Belgian rider. Another notable win was that of Kennebec in the qualified hunters' class, when the Irish champion was defeated. Mr. Beck won thirteen prizes: 1st for hunt teams; 1st for qualified hunters, Corinthian class; 2nd for heavy-weight qualified hunters; 2nd for tandem; 3rd for best lady hunter; 3rd for light-weight qualified hunter; 3rd for middle-weight qualified hunter; 3rd for best pair under 15.2, twice defeating Mr. Vanderbilt's crack pair; 3rd for the best lady's harness horse, single, besides two reserve prizes, and two highly recommended. Mr. Beck mentioned that the Canadian horses were fourteen days aboard ship, having been detained at Montreal, owing to the longshoremen's strike, and that they arrived in London only four days before the show opened, whereas the American horses were there months before. All the horses exhibited by Mr. and Mrs. Beck were bred in the Province of Ontario.

DAYBREAK.

A wind came up out of the sea,
And said, "O mists, make room for me!"

It hailed the ships, and cried, "Sail on,
Ye mariners, the night is gone."

And hurried landward far away,
Crying, "Awake! it is the day."

It said unto the forest, "Shout!
Hang all your leafy banners out!"

It touched the wood-bird's folded wing,
And said, "O bird, awake and sing."

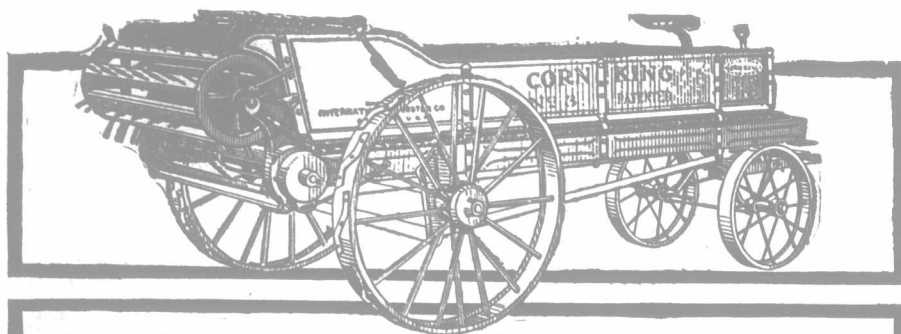
And o'er the farms, "O chanticleer,
Your charion blow; the day is near."

It whispered to the fields of corn,
"Bow down, and hail the coming morn."

It shouted through the belfry tower,
"Awake, O bell! Proclaim the hour."

It crossed the churchyard with a sigh,
And said, "Not yet! in quiet lie."

—Longfellow.



100 PER CENT MORE VALUE OUT OF THE MANURE PILE

WOULDN'T you like to get *all* the value out of the manure—the only fertilizer produced on the farm?

There's an alarming waste in the way manure is ordinarily handled. It is an easy matter to get double the value that most farmers are now getting from it.

Don't let it lie in piles in the barnyard indefinitely, to ferment and burn up from a third to a half of its fertilizing content.

Don't allow the rains to drain and wash away into the streams the rich liquids that are so valuable for plant food.

Don't haul it out and throw it in piles in the fields to waste.

Haul it out as it is produced, when it is fresh, while it is in its most valuable form, while it contains all its fertilizing elements, and distribute it evenly and thinly so that the land will receive every particle of its fertilizing content.

The Corn King return apron spreader and the Cloverleaf endless apron spreader are both made exceptionally strong and durable. The operation of each machine is controlled by a single

lever. The quantity of manure to be spread is regulated by means of this lever, the range of adjustment being from 3 to 30 loads.

Certain features are peculiar to these two spreaders and not found on other spreaders, such as the vibrating leveling rake which brings the manure up square and level to the beater, and the driving of the aprons by applying power to both sides, thus avoiding binding, friction and twisting, with consequent breakage.

The wheels are made of steel with broad tires, and the front wheels cut under to permit short turning. The draft is as light as can be secured in any spreader which provides the necessary strength to sustain the proper working apparatus.

The Corn King and Cloverleaf spreaders are made in sizes to meet the needs of the users, and can be secured by calling upon the local dealer.

Call for catalogs and colored hangers illustrating and describing these machines, or write us for little booklet on wasteful practices on the farm, which you will be thoroughly interested in reading.

Call on our Local Agent or write nearest branch house for catalog.

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INTERNATIONAL HARVESTER COMPANY OF AMERICA, Chicago, U. S. A.
(Incorporated)

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August 26 to September 9

\$45,000 In Premiums \$45,000

New Grand Stand	\$250,000
New Agricultural Building	100,000
New Railway Exhibits Building	50,000
Other Improvements	50,000

\$40,000 In Special Features \$40,000

MAGNIFICENT SPECTACLE — BATTLE OF BADAJOZ.
With 700 men; thousands of dollars' worth of fireworks, and 8 banners.

Upwards of 7,000 Animals on View at Once.

Entries Close Saturday, August 3rd.

For prize lists, entry blanks, and all information required, address:

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Write for Catalog and other information.
George B. McKillip, Sec., Dept. N Wabash Ave. Chicago

GOSSIP.

If "Old Subscriber," who writes for information regarding registered Clydesdales, will send us his name and post-office address, his questions will be answered.

In his speech at the Royal Show, at Lincoln, His Majesty the King expressed the prevailing sentiment when he said that the splendid entries of the show this year proved to him that the pre-eminence of Great Britain in breeding stock of the highest class, although often threatened, was not seriously endangered.



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QUESTIONS AND ANSWERS.

Miscellaneous.

CURB.

Curb is coming on leg of a two-year-old colt. He is not lame. W. H. H.

Ans.—Get him shod with a shoe about one inch higher in the heel than in the toe. Clip the hair off the curb and apply a blister of 1 dram each biniodide of mercury and cantharides, mixed with an ounce of vaseline. Tie so he cannot bite the parts. Rub well with the blister once daily for two applications, and the next day wash off, and apply sweet oil. Turn in box stall, and oil every day. As soon as the scale comes off, blister again, and after that blister once monthly as long as necessary. Keep him as quiet as possible and well bedded, so he will not slip in the stall.

GARGET.

Last March one of my cows had garget in the udder, and lost the use of one quarter. She became stiff and lame in hind quarters. I dried her up, and turned her on grass. She is still a little stiff, but has not laid on any beef. She is about 12 or 13 years of age, and has lost one tooth. Kindly tell me what is best to do in this case. J. H. W.

Ans.—The latest and simplest treatment for garget, said by veterinarians to be successful in many cases, is the air treatment, filling the affected quarter full of air by means of a teat tube and a bicycle pump, and massaging the udder well with the hands to force the air into all the tissues. It could do no harm to try this treatment yet, though we should have little hope of restoring the usefulness of the quarter. We should judge that there is probably tubercular trouble, but only the tuberculin test, which a veterinarian would apply, will decide that. We would advise keeping cow in a darkened shed in day time during hot weather, and feeding with nourishing food, if you conclude it is worth trying to fatten her.

STATUTES OF LIMITATIONS.

1. The Statutes of Limitation, are they Provincial or Dominion Acts?
2. Are mortgages covered by same?
3. What is the time limit?
4. In cases where a discharge of mortgage had not been registered, would undisputed possession for the time limit give valid title?
5. Is it necessary or is it common practice to have a document recorded setting forth the error and how it has been met, according to law, to simplify and facilitate matters of transfer?
Ontario. SUBSCRIBER.

Ans.—1. Both; but what are commonly referred to in the Province of Ontario as "The Statutes of Limitations" are the Provincial Acts, R. S. O., 1897, Chap. 72, an Act respecting the limitation of certain actions, and Chap. 133, "The Real Property Limitation Act."
2. Yes.
3 and 4. Ten years. A mortgage on land is deemed satisfied after ten years, if nothing has been paid on account of the mortgage money or interest, and no written acknowledgment of indebtedness has been given in the meantime.
5. No.

BULGING WALLS OF SILO.

I have a rectangular silo 14 x 15 x 30, inside. It bulges outward for about 12 feet from bottom, when full; that is, the middle of the four sides. The corners are all solid, and it remains with a bulge outwards of perhaps 8 inches. Supposing I would put concrete in inside, about 8 inches thick, leaving inside boards of silo as they are, would that be a good plan? How much cement and gravel would it require? C. C.

Ans.—All things considered, we believe it would not be wise to attempt to reinforce the old silo with concrete as the cost of doing so would go far towards building a new round cement one, which would doubtless prove more satisfactory, as silage settles more uniformly and keeps better in a circular silo. Another advantage of tearing down and building anew is that the lumber would be recovered while still probably sound enough to be of considerable value. A round cement silo would not require to be built with walls more than 12 inches thick at the bottom and 8 inches at the top. A

circular silo, with an inside diameter of 16 feet, and 30 feet high, would have practically the same capacity as the rectangular one 14 x 15 x 30. To build it would require about 60 cubic yards of gravel and 40 barrels of good Portland cement. This would be but little more material than to line the square silo with an eight-inch wall. In the June 6th issue of "The Farmer's Advocate" will be found a very complete account of the construction of a round silo.

LOCUST HEDGE AFFECTED BY MILDEW.

What is the cause and remedy for a mildew that comes on a French locust hedge after it is well out in leaf? Have had trouble two years, and would like to be prepared if it starts this year.

I. L. P.

Ans.—Without seeing an affected twig, one cannot be certain of the name of the disease. It is evident, however, that it is one of the powdery mildews which affect the leaves of many kinds of trees and shrubs. These mildews are parasitic fungi, which spread by means of spores, and as the mycelium, or vegetative part of the fungus, is exposed, some of the mildews are much easier destroyed than diseases which feed from within the leaf. Bordeaux mixture has been found very useful in controlling some of the mildews, and we should suggest spraying the hedge thoroughly with it as soon as there is the first indication of the disease. Other applications should be given if the disease continues to spread, or if the first spray is washed off. The formula for Bordeaux mixture is in the proportion of 4 lbs. sulphate of copper, 4 lbs. fresh lime, 40 gallons of water. Dissolve the bluestone, and slake the lime, separately. Add about half the amount of water to both the strong copper-sulphate solution and the diluted-lime mixture into the diluted copper-sulphate solution, or, better still, pour together simultaneously. If more water is needed to make up the requisite amount, it may now be added.

W. T. MACOUN.

Horticulturist, Experimental Farm, Ottawa.

Veterinary.

WARTS.

Enclosed you will find a substance taken off a cow's back. There is a patch the size of the palm of your hand like this, and many smaller ones. These have been present for five years. Do they injure the milk or flesh? L. E. E.

Ans.—These are warts, and do not injure flesh or milk. Those with constricted necks should be cut off with a pair of shears, and the raw surfaces dressed once daily for three or four days with butter of antimony, applied with a feather. The flat ones should be dressed with butter of antimony once daily until they disappear. V.

DIFFICULT BREATHING.

Horse had distemper in May. Since then he has had difficulty in breathing, coughs and discharges from his nostrils. The cough is worse after a feed of grass. He has lost ambition, and will not eat well for a couple of days after a long drive. W. M. B.

Ans.—This is one of the sequels that sometimes appear after distemper. Give him, every morning, a ball composed of 2 drams solid extract of belladonna, 1 dram powdered opium, 20 grains digitalis, and 1 dram camphor, mixed with enough oil of tar to make plastic. Roll in tissue paper, and administer. If you cannot give it this way, dissolve in warm water and give as a drench. Also give 1 dram each of sulphate of iron, sulphate of copper in damp food at noon and night. Avoid heavy work or long drives until he improves. V.

Lincoln Curly-coated pigs, sold by auction at the Royal Show, brought good prices, the first-prize and champion boar being purchased for South America at \$260. The first-prize 1907 boar sold for \$110, and the second pen of three gilts of same class for \$210.

THE SPICE OF LIFE.

"Father," said little Rollo, "what is evolution?"

"Evolution, my son, is a sort of apology, which man has invented for displaying so many of the traits of the lower animals."

The father had gone away and left his only son in charge of the shop.

"Are you the head of the firm?" asked a man with a sample case entering the establishment.

"No, sir," remarked the young man, with great urbanity. "I'm only the heir of the head!"

"The quick-wittedness of the Japanese and their tendency to resent any indignity was aptly illustrated a short time ago," says a member of the diplomatic corps in Washington. "A general discussion was going on among a group of young people, including a student from Japan residing in this city, and one of the Americans, turning to the Japanese student, remarked: 'Are you a Japanese or a Chinese?' The muscles of the face of the student twitched slightly, and without other indication of any feeling on the subject, he retorted: 'Are you a Yankee, a donkee, or a monkee?' The laugh was on the Yankee, and there was no further remarks of a derogatory nature."

It was in a Police Court in India. The client of the babu lawyer was a woman accused of assault and battery, and the attorney, attacking the opposing lawyer, delivered himself as follows:

"My learned friend, with mere wind from a teapot, thinks to browbeat me from my legs. I only seek to place my bone of contention clearly in your honor's eye. My learned friend vainly runs amuck upon the sheet anchors of my case. My poor client has been deprived of some of her valuable leather (skin), the leather of her nose. Until the witness explains what became of my client's nose leather he cannot be believed; he cannot be allowed to raise a castle in the air by beating upon a bush."

The ethereal being with the unshorn locks was shown into the editorial sanctum, says an exchange.

"I have written a poem on the dog," he said.

"Whose dog?" demanded the editor, fiercely.

"It is not on any particular dog," faltered the poet.

"Do you mean to say that you took advantage of the dog because it was not particular, and wrote your poem on it?"

"I am afraid that you do not understand me. I was inspired by the dog's fidelity."

"If the dog was faithful, why should you hurt its feelings by writing a poem on it? Did you have the poor brute shaved and tattoo the verses on its back, or did you brand them on? Perhaps you—"

But the poet had fled!

Charles Dana Gibson, who is now in Paris, told at a dinner at the Cafe Riche a pretty story about Horace Vernet, the great French painter of battle scenes.

"When Vernet," said Mr. Gibson, "was at the height of his fame, when the prices he was getting were enormous, a grizzled old veteran came to him one day and said:

"I want you to make my picture to send home to my son. What, though, is your charge?"

"How much are you willing to pay?" said Vernet, smiling.

"A franc and a half," was the answer.

"Very good."

"And the artist, with a few quick strokes, dashed off a wonderful sketch of the old man."

"The old man paid, tucked the sketch under his arm, and carried it out triumphantly to a comrade who awaited him outside."

"But I did wrong not to haggle a bit," Vernet overhead him say. "I might have gotten it for a franc."

Lord Russell, of Killowen, as a young man, went to a theatre, where he was wedged in the crowded pit, to hear a cry raised, "My watch is gone!" The man who complained declared that the thief was Russell, or one of two men between whom he was standing. Russell suggested that they should all go to the box office to be searched. As he led the way it occurred to him that if the man behind were guilty he would try to thrust the watch into his (Russell's) pocket; so he drew the tails of his coat tightly about him. To his horror, he felt that the watch was already there!

Luckily, as they approached the box office a detective recognized the man behind Russell as an old thief, and took him into custody. The other two received apologies and were permitted to depart. But that watch burned in Russell's pocket. He could not let an innocent man suffer. He walked slowly back to the office and confessed that, although he was not the thief, he really had the watch. He put his hand into his pocket to produce the hateful thing, and drew out—a forgotten snuffbox.

WHAT THE WINDS BRING.

Which is the wind that brings the cold? The north wind, Freddy, and all the snow; And the sheep will scamper into the fold When the north begins to blow.

Which is the wind that brings the heat? The south wind, Katie, and corn will grow; And peaches redden for you to eat, When the south begins to blow.

Which is the wind that brings the rain? The east wind, Arty, and farmers know That cows come shivering up the lane When the east begins to blow.

Which is the wind that brings the flowers? The west wind, Bessie, and soft and low The birdies sing in the summer hours When the west begins to blow.

—Edmund Clarence Stedman.

THE FARMER'S SON.

And John said: "Father, there is no charm For me any longer upon the farm; I'm tired of this incessant toil, Tilling an unproductive soil; I think these labors I will eschew To seek in the city for something new."

And the father said: "My son, 'tis true The work is hard you've had to do And I have noticed the sad unrest That has been filling your youthful breast; And while it grieves me to have you go, You'll never be satisfied here, I know."

And then he smiled as he turned away And said: "Let him have his day, To hinder him now would but work him harm, And yielding may cause him to love the farm, I'm satisfied soon that his heart will burn For the dear old homestead, and he'll return."

And John departed that very week For city service at once to seek; But every place with an open door Had applications, at least a score; 'Till he was forced, with no great grace, To take a poor, inferior place.

The work was hard, and the pay was small, It hardly covered his needs at all, And how he grieved to his sad heart's core In an office cooped twelve hours or more.

And then came thoughts of his country home That seemed to whisper to him to come.

The father watched every passing day The outer gate where the main road lay, For he said with cheer as the days went on,

"The next one surely will bring us John,"

And sure enough, soon the gate swung wide,

And John was home on the farm to hide.

—E. H. Foss.

"Time to burn" originated with the time candle. Exact time originated with the

ELGIN WATCH

Every Elgin Watch is fully guaranteed. All jewelers have Elgin Watches. An interesting, illustrated booklet about watches, sent free on request to

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You operate the Modern Canner right on your own farm or in your own store. Fruit growers, vegetable growers and grocers use it. Saves all waste. Profits are large. Put up your surplus perishables and market them to the best advantage.

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Our Descriptive Booklet tells all about "The Modern Canner." Write for it.

Clydesdales, Percherons and Hackneys

I have still on hand 19 Clydesdale stallions, 4 Clydesdale fillies, all imported; Scotland and Canadian prizewinners; 5 years old, that will make 2100-lb. horses of choicest quality and richest breeding; 4 black Percheron stallions, 3 years old, big, flashy, quality horses, and 6 Hackney stallions, 1st-prize and championship horses among them. Will sell reasonable and on terms to suit.

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of highest possible quality and richest breeding. Have sold as many stallions the last year as any man in the business, with complete satisfaction in every case. I have always a large number of high-class horses on hand. My motto: "None but the best, and a straight deal." Will be pleased to hear from any one wanting a rare good one. Terms to suit. Long-distance 'phone. LISTOWEL P.O. AND STATION.

SMITH & RICHARDSON, COLUMBUS, ONT.,

have now on hand only the choice imported colts Dashing King, a 3-year-old, and Baron Columbus, a 2-year-old; also a couple of rattling good Canadians, 7 and 8 years old.

Long-distance 'Phone, Myrtle Station, G. P. R. Brooklyn or Oshawa, G. T. R.

Graham & Renfrew's CLYDESDALES and HACKNEYS

Our Clydes now on hand are all prizewinners, their breeding is pedigreed. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-steppers and carriage horses. Yonge Street cars pass the door every hour. 'Phone North 4428.

GRAHAM & RENFREW, BEDFORD PARK, ONT.

IMPORTED CLYDESDALES

Just arrived: One 4-year-old mare, two 3-year-old mares, seven 2-year-old fillies and three yearling fillies, two 2-year-old stallions, and one 1-year-old. The 4-year-old mare is due to foal. Six of these fillies are high-class Scotch winners. No richer-bred lot. No more high-class lot was ever imported. They have great size and quality. The stallions will make very large show horses—full of quality. They will be sold privately, worth the money.

CRAWFORD & BOYES, Thedford Station, Widder P. O., Ont.

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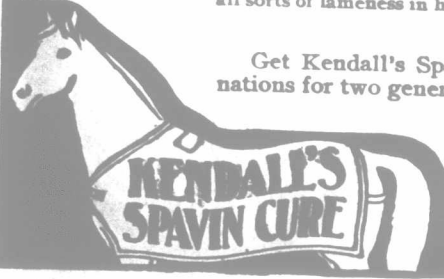
Kendall's Spavin Cure

Thos. Castles, of Newark, N.J., bought a horse—lamed with a Jack Spavin—for \$100. He cured every sign of lameness with Kendall's Spavin Cure—won five races with the horse—then sold the animal to his former owner for \$1,000.00.

WELLINGTON, N.Z., Nov. 2nd, '05.
"I have found your Spavin Cure a very fine remedy for all sorts of lameness in horses and I am never without it."
R. J. WISBEY.

Get Kendall's Spavin Cure—the remedy used by two nations for two generations. \$1. a bottle—6 for \$5. Our book—"Treatise On The Horse"—will save you many a dollar if carefully read and acted upon. Write today for a free copy.

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In my stables intending purchasers will always find a good selection of high-stepping harness horses, saddlers, etc. Just now I have a number on hand, also a few high-class Hackney mares; some with foal at foot. Noted prize-winners among them, and some rare good youngsters.

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A number of choice Hackneys of both sexes for sale. A number of choice Shropshires of both sexes, from our imported flock, for sale. Will have a number of show pens, will be ready for sale by the end of July. Some choice Berkshire boars and sows for sale from our imported stock. We are booking orders for Scotch collie puppies from our imported kennel.

THE HAT.

By Grace Sartwell Mason.

The milliner is a personage in Fowlerville. The front window of her shop commands the public square; it sweeps Main Street; it affords a view of the post office, the depot, and the side door of the Grand Central Hotel. Through twenty-five years of glancing out of it, the milliner has acquired an appalling knowledge, and a power that not even the president of the Citizens Bank possesses. She wields this power as she does her fateful, shining shears—despotically, but, as a rule, with beneficent result. She is a diplomat as well as a despot; not even the head dining-room girl from the hotel dares ask her to copy the hat she has just made for Mrs. D. Ferdinand Holmes.

Sometimes I take a chair in her work-room amid skeletons of hats and dusty fashion-plates. At such times I am contented audience to a monologue that flows along in some such wise as this:

"You needn't say it, child; I know by your eye you've come for your hat. Well, it isn't done. No, I couldn't see as there was anything special for you to go to this week until Sunday, and so I didn't hurry myself none. And anyway I had to finish a hat for Mis' Andrews—the one that's turned Free Methodist. Look at it! Ain't it a sight? You know, it's sinful, according to Mis' Andrews, to be stylish, so I sell her a last year's hat, which satisfies her conscience and helps to get rid of old stock. It seems to me a queer notion that anyone can keep righteous by being a year behind the styles, but there's all sorts of heads and I have to fit them. When I go down to the city to buy hats I keep that in mind. Last time I says to myself: Now, there's Jane Marsh. The new drug clerk has been shining up to her a little this spring, and it's up to me to hat Jane Marsh so that he'll see what a pretty girl she is in spite of her old-maidish ways. With that I up and bought one of those floppy Leghorn hats with pink roses to go on it. I perked it up in the back and gave it a real naughty tilt over one eye, and actually, you wouldn't know Jane Marsh in that hat. It gave her a real lively expression, and from the back you'd never guess she hadn't got spunk to say boo to a goose. She got red when she put it on, and said it wouldn't do to wear to church. Just there I up and told her a few plain truths about herself. She nearly cried, but she was down town to the post office the next morning in a white duck suit and that hat; and I'm willing to take my oath that was the first time the new drug clerk really looked hard at her."

"I remember that hat," said I. "It certainly did wonders for Jane."

"But that ain't the only match I've made," she continued. "Do you remember that big lace hat I bought the first summer you come here? When I was getting in spring stock I looked at that hat for two days. I said to myself it would never go in Fowlerville. They'd shy at the first sight of it; but I had in mind that it would look fine on Jennie Delano, so I bought it. And will you believe me, I couldn't sell it. Jennie was a picture in it, but her ma set her foot down; said it was too skittish, and it wouldn't do to wear in the choir! Jennie begged and implored to have it, but her ma's as set as the eternal hills, so we had to give in. I could have sold it to one of the pickle-factory girls, but some way I had got in my mind just the sort of face I wanted to see under that hat—it was, so fluffy and soft. Heaven knows I have to sell enough of the old Mis' Doolittle kind of hat, and see 'em wore by women as homely as I am myself, so that now and then I can afford to be foolish! So I'd hide that hat when I saw the pickle-girls coming in, and take it out when a real pretty face come along."

"All of our nice girls tried on that hat, and they all fairly cried for it. Little Dotty Sinclair would come in every evening and say, real wistful: 'You haven't sold it yet, have you, Mis' Dow?' Then she'd try it on for the tenth time, and sigh. Of course she couldn't afford eight dollars and forty cents for a hat—see me in Fowlerville ever paid that much for one hat except the pickle-girls and the head dining-room girl at the hotel, and I wouldn't even show it to them."

"It got to be June and I still had that hat on my hands, when one night, just before I locked up, Mary Hubbard come in and set down in that chair there. It'd been a 'warm day, and I thought to myself, as she leaned her head against the chair back, 'Mary Hubbard, you're getting old by leaps and jumps.' She'd brought her last year's hat for me to make over, but she was too dead beat out to even unwrap it. She'd been sewing since seven that morning on Kitty Delano's wedding things, and she said she couldn't stay long for she had to go home and finish a shirt-waist for her sister Debbie to wear to the school picnic next day. There was something about the way she leaned her head against the chair with her eyes closed and her pale-colored hair all fluffing out about her face that made me think of pictures of young martyrs and unhealthy saints I've seen. The sight of her riled me up, some way."

"Mary Hubbard," says I, "how old are you?"

"Thirty-two," says she, without opening her eyes. That shows just the state she was in; she hadn't spunk or pride enough to say twenty-seven or twenty-eight.

"Thirty-two," says I. "Old enough to have sense, Mary Hubbard, what are you killing yourself for? To keep a husky boy in college studying to be a lawyer when he'd make a better blacksmith? To dress a feather-headed schoolgirl up to the last notch of style? To keep your mother in patent medicines when she'd forget she had a liver if she had to work as hard as you do? And what's you pa doing these days? Does he pay the interest on that mortgage your digging your grave with? I noticed him this morning making tracks for the pool-room, and for all I know he ain't come out yet."

"Oh, Mrs. Dow!" she said, shocked and sitting up at last.

"Oh, I know you, Mary Hubbard," I says, "and I tell you to your face you're a fool. Self-sacrifice can be overdone till it's silly. When the Lord put you in this world He didn't make you pretty for nothing—yes, you are pretty, too; at least you would be if you got some rest and wore the right kind of clothes. I don't believe you've been to a party in six years; and how many times have you made over that brown cashmere? You hadn't ought to wear a bilious color like brown, anyway; and as for that black straw I sold you three years ago, I won't make it over again. You're going to have an all-new hat this summer, just to see how it seems."

"With those words I got an idea. I never stopped to see what she had to say, but I went into the shop and brought out that lace hat. Mary set there looking stunned, with a pink spot in her cheeks, and I clapped the hat onto her before she could wink. Then I turned up all the lights and brought the mirror. She took one look at herself, and then to my amazement she begun to cry. And what do you suppose she was crying about?"

"I've seen a ghost!" was all she said, but I knew what she meant. It was the ghost of Mary Hubbard at twenty she had seen; and it was the hat that did it. The soft lace of it fell over her hair and the wide brim made her skin like a rose. You would never have believed that Mary Hubbard could be so pretty! Of course she said she couldn't afford to buy the hat, but that made no difference to me. I just cut the price in two, I got that in love with the look of her in it; and she went home with it in a bag. She was half laughing and half crying, and said she felt ashamed as a thief. I told her she had been stealing from herself so long I didn't wonder."

"Two or three nights later she come in again. 'Have you worn that hat yet, Mary?' says I."

"No," says she, "I don't dare to. I take it out and try it on when I go up to bed, but I haven't got the courage to wear it. Folks will think I'm dreadfully silly to buy such a hat—a girl of my age and circumstances."

"My land!" says I, "you can't keep it in a handbox under your bed all summer. When you do come to wear it though, I'm afraid your old brown cashmere won't go very well with it—"

"I've been thinking of that," says she, wrinkling up her brow. "Mrs. Dow,"

(Continued on next page.)

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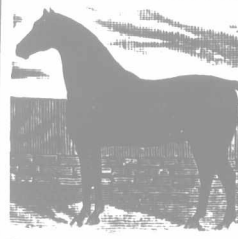
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Clydesdales, Shorthorns and Cotswolds—For richest bred and choicest individuals of above breeds, write me. My new Cotswold and Clydesdale importation will arrive early in the season.


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To make room for my new importation, I will sell four cows with heifer calves by side, two yearling heifers, one yearling bull and two bull calves at a 20% reduction if taken in the next 30 days. The best of breeding and individual merit. Herd is headed by a son of the grand champion, Prime Lad.

Address: M. H. O'NEIL, Southgate, Ont.



I don't know what that hat's done to me, but ever since I got it I've thought of nothing but things to wear with it. Now there's a piece of old-rose-colored silk in Smith's store. . . I've been thinking for a month that I'd get Debbie a dress off that piece, so that she could go to parties next winter, but—

"Yes," says I, snappishly, "I'd get my pa a dress suit, and my ma a seal-skin sack, too. Mary Hubbard, you'd never look over twenty-four in a rose-colored silk and that hat. You'd better hurry along now, or Smith's will be closed."

"Twenty minutes later she sneaked by my window there, on her way home, with a bundle under her arm. She looked as if she was running from the p'lice, but when I rapped on the window—if you'll believe me, she winked one eye. Five years just dropped right off Mary Hubbard with that wink!

"Toward the end of the month she put her head in that door there and wanted to know if I was alone. She come in laughing and blushing like a girl with her first beau, in a rose-colored dress and her new hat.

"Now, Mary Hubbard," I said, "you see it's true what I told you; the right kind of clothes was all you needed. I suppose you'll wear them to church to-morrow."

"Mercy, no!" says she, "it would upset the minister." And then she set down with her chin in her hand, and I could see there was something working on her mind. Pretty soon she says:

"Mrs. Dow, I'm going to take a vacation. I've been thinking over what you said the other night and I know you're right. I'm thirty-two and I look five years more. When I was eighteen and going to parties with the other girls, I never dreamed that I'd get to be careless about my clothes at thirty-two. It's been five years since I had an invitation to a party. I know why, now. The last party I went to I hadn't time to get anything pretty to wear, and I had to sit around with the married people most of the time. I never accepted an invitation after that. Naturally people stopped asking me after a while. The set I used to go with have got to taking my shabbiness and my dullness for granted—and it's too late now to get acquainted all over again; they'll never understand that my heart's as young as theirs. And so—I'm going away for a trip somewhere—to some place where people don't know me well enough to call me "conscientious" and where I can wear rose-colored silk in the morning if I want to! I've got an aunt in Washington who takes life like a grasshopper. I think she'll be a good one to start with; and I've told Pa that he'll have to look after the family this summer."

"And Pa did, too. All that summer and fall it done my soul good to see Alonzo Hubbard (who always hated to get up in the morning) driving a milk wagon. He didn't have much time to squander in the pool-rooms, and even Alonzo Junior, when he come home from college, accepted a position selling soda-water in the drug store. Mary's vacation seemed to be working both ways, I was glad to see. Mary herself didn't come home till most cold weather, and when she poked her head in the door there and laughed at me, I blinked twice before I knew her. She had on the friskiest little hat I ever saw, and she didn't seem to as much as give it a thought.

"Well, Mary Hubbard," says I, "I see you don't need me to make over your lace hat into something fit for winter."

"I should say not!" said she. "No one shall ever touch scissors to that hat—it's my mascot!"

"Your what?" says I.

"My mascot," says she; "a sort of lucky penny, you know. I'm going to be married next week."

"Land of love!" says I; "who to?"

"Representative Jerry Tomlinson," says she.

"With that I fairly glared at her. Why, Jerry Tomlinson was the one single man in Fowlerville it was worth any girl's time to marry—and Mary Hubbard had lashed him! Why, he had gone to school with Mary Hubbard; he had seen her as often as he had seen the hitching-posts around the square, and to my certain knowledge he had paid her just about as much attention. I said so to Mary, and she laughed.

"When I think of that brown cashmere I used to wear," said she, "I can forgive you for likening me to the hitching-posts about the square; I can forgive you anything, in fact, because of that lace hat you made me buy. Mrs. Dow, I just looked at him once from under its brim, and he began to remember the day we skipped school and went hunting for arbutus together, and the licorice and mottoes we used to exchange. He seemed to enjoy talking about our childhood so much that I didn't remind him it was Lizzie Sinclair he hunted arbutus with, and that I never could bear licorice—I just laughed and said to myself, "It's the hat!" But next day when the charm of that hat seemed still to be working, I felt myself getting younger and younger, and now, Mrs. Dow, I've come back to have you make me a heap of them—something suitable for twenty-four!"

Mrs. Dow picked up her shining, fateful shears once more. Her black eyes looked at me shrewdly.

"With your color of eyes," said she, "you ought to wear violet. Now, I've just got in some new mauve velvet. Shall I—?"

"Yes, please," said I, "anything you think is right!"—[Everybody's.

THE VOICE OF NATURE.

Nature's voice is calling, calling o'er the vale,
Listen to her telling, a wondrous happy tale;
She speaks of seasons coming, she speaks of seasons past,
Of sweetest wild birds humming, of verdant velvet grass,
Of fruit trees' scented blossoms in the gladsome spring,
Of cattle faintly lowing, of insects on the wing.

Her voice is borne in sweetness from out the rustling pines,
From every quivering leaflet that in the sun reclines.
The flowers show their faces, seeming thus to say,
"We are nature's paintings, some sober and some gay."
The wind, too, joins the chorus, with mighty voice and loud,
Sometimes in gentle sighing, again in anthems proud.

All of nature's wonders seem gifted with a voice,
Bidding us be grateful, bidding us rejoice;
It whispers to us gently of tender, loving care,
Of Peace and joyful gladness, and beauty everywhere.
It bids us love and honor, and render all our praise
To God above, our Father, Who numbereth all our days.

Quebec. JAUNTA.


Replying to a question as to the possibility for pure-bred Shropshires to throw, occasionally, a black lamb, Mr. Mortimer Levering, Secretary of the American Shropshire Association, says in an exchange: "It is not only possible, but probable that a pure-bred registered Shropshire ewe, one among five thousand ewes, may drop a black-fleeced lamb that will remain black at maturity. Such lambs are not eligible for registry, and should be slaughtered. They are sports, and sports are to be found among all animals and birds. Jet black and pure white English sparrows are not infrequent."

A clergyman who had embarked on a ship for a sea voyage came to the purser with his money and valuables on the first day out with the request that he would put them under lock and key until the voyage was over.

"You mustn't think that I wish to cast any aspersions on the character of the other man in my cabin," he said. "I wouldn't like you to think that it was because I didn't trust him that I am doing this."

"Of course not, sir," replied the purser; "besides, the other man has just deposited his money with me, and he made exactly the same remarks on speaking of you."

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1 senior show bull calf from imp. dam.

2 senior show yearling heifers, one from imp. sire and one from imp. dam.

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Headed by (Imp.) **Jin Victor -45187-**. Offerings are two bull calves, an 11-months **Miss Ramden**, from Imp. sire and dam; a 19-months **Missie**, by **Blythesome Buler**, and other bulls; also heifers of choice breeding. A few choice **Berkshire** pigs just off the sow.

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Stations: Meadowdale, C.P.R.; Brampton, G.T.R.

SHORTHORNS

One beautiful roan bull for sale, sired by Derby, Imp., the great stock bull. This is a grandly-bred bull, and will make a good show bull, and also a grand getter. We also have several first-class heifers of breeding age, also some cows in calf or calves at foot—imported and home-bred.

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Prices reasonable. Telegraph, Telephone, R. R. Sta. and P. O., Milverton.

Scotch Shorthorns A grand pair of yearling bulls, also a few heifers, bred from Imp. sire and dams. Pure Scotch and fashionably pedigreed. Will be sold right. **C. RANKIN & SONS,** Wyebridge P. O., Wyevale Station.

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QUESTIONS AND ANSWERS. Veterinary.

ACUTE INDIGESTION.

Horse became sick about 7 p. m., acting like a horse with colic, throwing his head around to his side, lying down, rolling on his back, and kicking, etc. We gave him pain-killing liniment, soda, ginger, turpentine, sweet nitre, cayenne pepper, and inflammation medicine every 20 minutes, but he died about 11.30. He had a milder attack three weeks before.

J. W.

Ans.—He suffered and died from acute indigestion. It is probable he could have been saved if attended to by a veterinarian in the early stages. He would doubtless have administered eserine or arecolin hypodermically. Not knowing the constituents of "pain-killing liniment" or "inflammation medicine," I cannot say whether their administration every 20 minutes did much harm or not; but, of course, liniments are intended solely for external application, and are harmful if given internally. When veterinary attention cannot be procured, the best dose in such cases is two ounces oil of turpentine, 1 ounce fluid extract of belladonna, and 1 pint raw linseed oil. Repeat in 1½ hours, and every two hours afterwards give 2 ounces chloral hydrate in solution.

V.

Miscellaneous.

LYMPHATIC GLANDS IN BEEF OR PORK FAT.

Kindly tell if meat, beef or pork, is fit for use when there are small dark lumps in the fat? What is the cause? The meat is not inspected in this village.

M. P.

Ans.—It would appear that the "small dark lumps in the fat," as described by M. P., are simply lymphatic glands. There would be no reason whatever that meat showing the presence of these glands should be other than fit for food.

J. G. RUTHERFORD,
Veterinary Director-General.

PICKETS TO FENCE OVER A HILL.

Does it require any more pickets to build a fence over a hill than on the level, say, for instance, there are 200 rods of level land without a hill, and immediately beside it, the same 200 rods, but a hill of 50 feet between. I argued that it would require no more pickets to build, but admitted it would take more scantling. The pickets are to be perpendicular.

ENQUIRER.

Ans.—If the pickets are set upright and spaced uniformly, the rise in the ground line in one case will make no difference in the number of pickets required, though it will, as you say, increase the length of scantling needed.

SPRAYING FOR BLIGHT.

Is there anything in spraying potatoes for blight? If there is, how often would you spray in season, and what time?

2. How much of each material would you put in a 35-gallon barrel?

3. How would it do to put in with Paris green?

4. What would you use for spraying?

W. H.

Ans.—1. Four or five thorough sprayings a season with properly-made Bordeaux mixture is in any ordinary year a very effectual means of preventing injury to potatoes by blight. One should begin, as a rule, in the fore part of July, and keep the vines coated with the mixture until they die in autumn. A single spraying, applied at the first sign of attack will prove of very material assistance in controlling the early blight, but it pays to be thorough and insure against infection with the blight fungus. In an ordinary season, this will necessitate four or five applications. The best may usually be applied at the time of the last spraying for bugs.

2. The formula for making Bordeaux mixture for spraying potatoes is: Blue-stone, 1 lb.; unslaked lime, 5 lbs.; water, one barrel of 40 to 50 gallons. For directions how to prepare, see "The

Farmer's Advocate" of July 4th, page 1094.

3. Paris green and Bordeaux may be applied together with distinct advantage. The lime in the mixture will cause the poison to adhere better than if applied separately.

4. To apply, buy a spray pump. If you have any fruit trees to speak of, or a potato acreage of half an acre or more, the pump will be a very profitable investment.

REGISTERING FRENCH-CANADIAN HORSES.

1. Kindly inform me whether there is a French-Canadian Studbook in Canada?

2. If there is a studbook, is there a horse called Tommy II. 1013 recorded there? If so, was he imported, or by whom was he bred, and who is supposed to own him now?

3. Is the form for a stud pedigree similar to the form used by the Dominion Swine Breeders' Association, or does any kind of paper do for such purpose? Should it be written in with ink and pen, that is, the name and number of the horse and his ancestors, or in type, and the same seal as the Swine Breeder's use, being Department of Agriculture, Canada, be stamped upon it to be genuine?

4. If other than described, is pedigree void?

5. Kindly inform me the origin of the pure-bred Percheron horse.

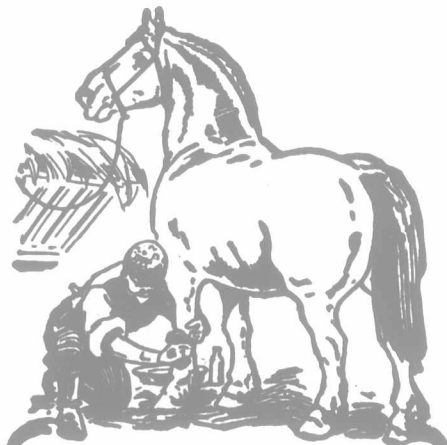
READER.

Ans.—1. The French-Canadian horse is descended from horses brought from France in the year 1665, and from further importations made in the latter end of the 17th century, and the beginning of the 18th. The exact race of these horses is not known, but from all indications a good deal of Arab blood ran in their veins. Towards 1840, some Morgan blood was introduced. In 1886, the French-Canadian Horse Breeders' Association was formed, and a record opened with the view of perpetuating the breed. Only such animals as would pass an inspection as laid down by the Association were eligible for entry as foundation stock. This inspection was found necessary on account of the introduction of blood of heavier horses, which, in some cases, had taken place since 1860. Up to the end of 1905, the time the Records of the General Breeders' Association of the Province of Quebec were nationalized, the pedigrees of 1,718 horses had been recorded. The certificate of registry issued was from the General Breeders' Association of the Province of Quebec, setting forth that the pedigree was on record in the French-Canadian Horse Studbook. After nationalization, it was decided to have a further selection made from the recorded as well as unrecorded horses for the foundation of the Canadian National Record for French-Canadian horses. Up to the present, there are on record the pedigrees of about 375 horses. The certificate issued is the Canadian National certificate, bearing the seal of the Department of Agriculture.

2. Tommy 2nd is on record as foundation stock under the number 1013. His pedigree was recorded August 19th, 1905. He is described as a black horse, with star; 5 feet high; weight, 1,250 lbs.; date of birth, 1901; sire, Tommy No. 67; breeder and owner, Arch. McIntyre, Allan's Corners, Que.

3 and 4. The certificate of registration for French-Canadian horses and that for swine, as issued by the Canadian National Records, are the same style form, each bearing the seal of the Department of Agriculture. The certificate of registry that was issued for Tommy 2nd would be written in ink on the form of the General Breeders' Association of the Province of Quebec for French-Canadian horses, and is genuine, but he would not be eligible for entry in the new record without again passing inspection as described in Ans. 1.

5. The Percheron breed originated in France, but the gray Arabian stallion, Gallipoli, is said to have been to the Percheron horse of France what the Darley Arabian was to the English Thoroughbred. Diligent enquiry and research has traced the most noted Percherons of modern times to this noted sire, imported to France about 1820.



When a Horse Gets Hurt USE Fellows' Leeming's Essence

But don't wait until an animal is injured. GET IT NOW—and you have the remedy that CURES all lameness in horses. If your dealer does not handle it, send 50c. to

National Drug & Chemical Co., Limited,
MONTREAL 13

Shorthorns, Clydesdales and Shropshires.

In Shorthorns we have 100 head to select from, of both sexes and all ages. No fancy prices asked. Several choice young Clyde mares and fillies. 75 Shrop, lambs of both sexes. Small profits and quick returns is our motto.

EDWARD E. PUGH,
Claremont P. O. and Station.
Telephone connection.

FOR SALE

8 SCOTCH SHORTHORN BULLS

Aged 6 to 14 months. Marr Beautys, Campbell Claretts, Bessies, Claras and Rosebuds, got by the Broadhooks bull, Broadhooks Prince (Imp.) 55002. Also cows and heifers in calf or with calves at foot or being bred to same bull. Prices lowest and terms easy.

DAVID MILNE, Ethel, Ont.

Shorthorns and Leicesters

Present offering: 1 extra good bull calf, 6 months old, from a grand milking young cow, and sired by Rosicrucian of Dalmeny (Imp.); also young cows with calf at foot. Leicesters of all ages.

Address: W. A. Douglas,
Galedonia Station, Tuscarora P. O.

WILLOWBANK SHORTHORN HERD

ESTABLISHED 51 YEARS.

FOR SALE: Young bulls and heifers from Imp. sires and dams, of most fashionable breeding and type; exceedingly choice. Prices to suit the times.

JAMES DOUGLAS,
Galedonia P.O. and Sta.

SHORTHORNS AND BERKSHIRES

Three young bulls fit for service; the right sort at reasonable prices and easy terms. Also heifers and cows with calves at foot by Bando-leer -40106-. In Berkshires: Sows five months old, and pigs soon ready to wean.

F. Martindale & Son,
Galedonia Sta. York P. O.
Haldimand Co.

Glen Gow Shorthorns

Our present offering is 9 bulls, from 6 to 14 months of age, sired by Imp. Ben Loman and Imp. Joy of Morning, and out of Imp. and Canadian-bred cows. Also a number of very choice heifers. No fancy prices asked. Long-distance 'phone.

WM. SMITH,
Brooklin & Myrtle Stns. Columbus P. O.

Shorthorns, Cotswolds and Berkshires.

For sale: 3 yearling bulls, also 6 bulls ranging from six to nine months; also yearling heifers and young calves. Will book orders for Cotswolds and Berkshires.

CHAS. E. BONNYCASTLE,
P. O. and Stn. Campbellford, Ont.

Young Shorthorn Bulls!

Am now offering 3 grand ones from Scottish Peer (Imp.). Will make show animals. A few Berkshire boar pigs 3 months old. Also Leicester sheep.

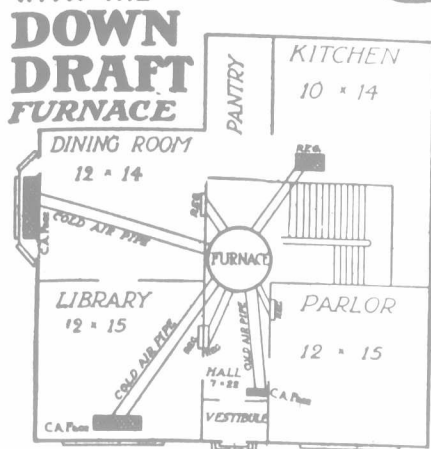
JAS. SNELL, Clinton, Ont.

Arlington Shorthorns and Leicesters.

Present offering: A few females of different ages, some from Imp. sires. No sheep for sale at present. Stock guaranteed as represented.

John Lishman, Hagersville P. O. & Stn.

Warm Air Heating WITH THE DOWN DRAFT FURNACE



We herewith submit the following estimate:

- 1 No. 9 Down Draft Furnace.
- 1 Casing complete, tin and asbestos lined.
- 1 No. 9 Monarch reg. in parlor.
- 1 No. 9 " " in library.
- 1 No. 9 " " in dining-room.
- 1 No. 9 " " in hall.
- 1 8x12 Reg and border in kitchen.
- 1 12x15 Face in hall.
- 1 12x19 Face in library.
- 1 12x19 Face in dining-room.

The above furnace, registers, cold air faces, hot air pipe, cold air pipe, and smoke pipe, installed complete for \$100.00.

We will cheerfully give you an estimate if you will let us have a plan of your house. Our catalogue describes our furnaces and the improved methods of heating. Send for a copy.

The Down Draft Furnace Company, Limited,
GALT, Ontario, Canada.

Glover Lea Stock Farm SCOTCH SHORTHORNS

Superior breeding and individual excellence. For sale: Bulls and heifers—reds and roans some from imp. sire and dam. Visitors meet at Ripley station, G. T. R.

R. H. REID, PINE RIVER, ONTARIO.

A. EDWARD MEYER,
Box 378, Guelph, Ont.,

Breeds SCOTCH SHORTHORNS of the following families: Cruickshank Bellonas, Mysies, Brawley Buds, Villages, Broadhooks, Campbell Claretas, Minas, Urys, Bessies, Bruce Mayflowers, Augustas, Marr Missies and Lovelaces, and others. Herd bulls: Scottish Hero (imp.) =55048= (90065), Sittyton Lad =67214= Correspondence solicited. Visitors welcome. Long distance 'phone in house.

SHORTHORNS

Six superior yearling bulls, some of them out of great milch cows; heifers of all ages. A lot of very big yearlings and a few heifer calves cheap.

CLYDESDALES

Two mares 5 years old, one an extra good one and a pair of geldings 4 years old.

JAS. McARTHUR, Gobles, Ont.

Maple Grove Shorthorns

Herd headed by the grand show bull, Starry Morning. Present offering: Imported and home-bred cows and heifers, also a few young bulls. Terms and prices to suit the times. C. D. WAGAR, Enterprise Stn. and P. O. Addington Co.

MAPLE GROVE SHORTHORNS

Scotch and dairy bred; up-to-date in type; prize-winners at the local shows. A number of 1 and year old heifers 1 year old bull, and one 5 mos. old—the last will make a show bull. Flora bred—will be sold easy. L. S. POWELL, Wallenstein P. O. and Stn. G. P. R.

SHORTHORNS, YORKSHIRES and S.-C. WHITE LEGHORNS.

I have sold all my young bulls advertised, but can offer straight Scotch-bred heifers of the noted \$2,000 bull, Joy of Morning (imp.) =32070=, and young cows bred to him. Also choice Yorkshires, 5 months old, imp. sire and dam. Leghorn eggs supplied at 75c. per 13. Geo. D. Fletcher, Binkham, Ont., Erin Station, C. P. R.

Scotch Shorthorns

Claretas, Stanfords, English Ladys, Mildreds, Nonpareils. Present offerings by Springhurst 4484 and Mildred's Royal. Prices moderate. F. W. EWING, Salem P. O., Elora Station.

Blm Park Shorthorns, Clydesdales & Berkshires

Herd headed by the choicely-bred bull, British Flag (imp.) 50016 Stock of all ages for sale. JOHN M. BECKTON, Glencoe, Ontario. G.T.R., C.P.R. & Wabash Farm adjoins town limits.

MAPLE HILL STOCK FARM—High-class Scotch Shorthorns.

Herd headed by Rose Victor =6435= and Victor of Maple Hill =65480=, both sons of the Duthie-bred bull, Sittyton Victor (imp.) =50093=, and from richly-bred imported cows. W. R. Elliott & Sons, Box 426, Guelph.

GOSSIP.

Bishop Sanford Olmsted, of Colorado, at a dinner in Denver, said apropos of Sabbath breaking: "I was talking to an Eastern clergyman the other day about his church attendance. 'I suppose,' I said, 'that in your district rain affects the attendance considerably.' He smiled faintly. 'Indeed, yes,' he said, 'I hardly have a vacant seat when it is too wet for golf or motoring.'"

An old farmer who lived by himself sent for the parish grave-digger and explained to him where he wished to be buried. "And here, Sandy," said he, "are ten shillings for digging my grave. Ye see, ye wadna, meybe, be sae sure o' the pay efter I'm awa'."

"'Deed, sir," replied Sandy, overcome at such unwonted liberality, "it wad be a pleasure tae me tae dig yer grave for naething at any time."

W. R. Elliott & Sons, Guelph, Ont., write: "Our Shorthorns are on the pasture, and looking well. Our present crop of calves, sired by Wanderer's Star =48585=, are the most promising lot ever bred at Haple Hill, and among them are several young bulls that are worthy of the attention of anyone requiring a right good calf. Their breeding is good, being sired by Wanderer's Star, he by the \$2,000 bull, Wanderer's Last (imp.), dam Sittyton Lavender 9th (imp.), by Silver Plate, and their dams are imported and home-bred cows of good breeding, and are also mostly heavy milkers. We would also sell some one- and two-year-old heifers, and some young cows at very moderate prices. Anyone wanting a young bull will do well to look them up early, as we have been entirely sold out of bull calves of our own breeding very early in the season the last two years, and this season's crop will also be sold very reasonably. Visitors will be met by appointment at Guelph, two miles from the farm."

WESTERN FAIR, LONDON.

The "Western Fair," of London, Ont., is again to the front with great preparations for 1907. The dates this year are Sept. 6th to 14th. A large amount of money has been expended upon the grounds and buildings this year, and everything will be in a first-class condition for the comfort and convenience of visitors and exhibitors.

Several thousand prize lists have already been mailed, and hangers and large posters are being sent out. Several new classes have been added to the prize list. There will be a class for ponies. There will also be a dog show this year in connection with the exhibition. The interest of the exhibitors has been carefully considered in arranging the prize lists.

The Attraction Committee will provide a very interesting and entertaining programme. Knabenshue with his airship will be seen daily.

The Secretary, Mr. A. M. Hunt, London, Ont., will be pleased to mail a prize list, or give any information regarding the exhibition, on application.

CLYDESDALES FOR CANADA.

Mr. R. Ness, of Howick, Que., has purchased from Messrs. A. & W. Montgomery a couple of two-year-old colts, a two-year-old filly, a yearling colt, and a yearling filly. The two-year-old colts were Pickle Baron (13474) and Fusilier (13482), both bred by Messrs. Montgomery, and got by Baron's Pride, out of full sisters, which were by Macgregor, grandam by Cedric, great-grandam by Knight of Lothian, while the great-grandam was the famous Barlae Doll. These colts are, therefore, of the most illustrious breeding, and individually they are a credit to their excellent lineage. The two-year-old filly was got by a son of Sir Everard, and won second at the Kirkcudbright and Dalbeattie shows when in the hands of Mr. John Montgomery. The yearling colt and filly are both got by the Highland champion horse, Benedict, which the Messrs. Montgomery repatriated after he had been sent to America. The colt won second at the recent Castle-Douglas Show, and the filly was bred by Mr. Phillips, Dildawn, and is out of a Lord Lothian mare. Mr. Ness, says a Scottish exchange, is not taking out such a large lot as usual this time, but he was very particular about them being extra good.

COW-TESTING ASSOCIATIONS.

Following are some of the recent results of thirty-day periods of testing in the co-operative cow-testing associations in Quebec:

- Ormistown.—83 cows, June 7. Average: 885 lbs. milk, 3.3 test, 30.0 lbs. fat. Best yield, 1,280 lbs. milk; testing 3.3.
- St. Marc.—116 cows, June 14. Average: 516 lbs. milk, 3.7 test, 22.6 lbs. fat. Best yield of any one cow, 1,120 lbs. milk; testing 3.1.
- St. Jerome.—156 cows, June 13th. Average: 549 lbs. milk, 3.5 test, 19.5 lbs. fat. Best yield, 990 lbs. milk; testing 4.0.
- Henryville.—186 cows, June 14. Average: 632 lbs. milk; 3.7 test, 23.4 lbs. fat. Highest yield of milk, 1,080 lbs.; testing 4.0.
- Dixville.—207 cows, June 17th. Average: 605 lbs. milk, 3.6 test, 24.1 lbs. fat. Best yield, 1,230 lbs. milk; testing, 3.8. C. F. W.

"It requires a vast deal of courage and charity to be a philanthropist," Sir Thomas Lipton was saying the other day, apropos of one of Andrew Carnegie's book-bounties. "I remember when I was just starting in business. I was very poor, and making every sacrifice to enlarge my little shop. My only assistant was a boy of fourteen, faithful and willing and honest. One day I heard him complaining, and with justice, that his clothes were so shabby that he was ashamed to go to chapel.

"There's no chance of my getting a new suit this year," he told me. 'Dad's out of work, and it takes all of my wages to pay the rent.'

"I thought the matter over, and then took a sovereign from my carefully-hoarded savings and bought the boy a stout warm suit of blue cloth. He was so grateful that I felt repaid for my sacrifice. But the next day he didn't come to work. I met his mother in the street and asked her the reason.

"Why, Mr. Lipton," she said, curtseying, 'Jimmie looks so respectable, thanks to you, sir, that I thought I would send him round town to-day to see if he couldn't get a better job.'

Mr. A. C. Hallman, Breslau, Ont., writes: "Business and sales have been good the last year, in both Holsteins and Tamworths, and numerous sales have been made. My herd of Holsteins now consists of some 35 head of very choice animals. My herd bull, Nanuet Pietertje Paul, first prize at Toronto in the two-year-old class, has developed very nicely, and is leaving splendid stock. For individual excellence and uniformity of type, I consider my herd is hard to equal. In Tamworths, business has been exceedingly good. Numerous sales have been made all over Canada and to many parts of the United States. I have just made a very valuable addition to my herd by a recent importation direct from England. I secured an exceedingly handsome pair of pigs from the famous herd of R. Ibbotson, Knowle, Warwickshire, England. The boar, Knowle King David, farrowed July 13th, 1906, is just the type I was looking for. He is very smooth and strong in every point, great length, very even, nice bone and beautiful color. His breeding is right in the purple, his sire having won many first prizes at leading English shows. I believe he will make one of the best boars ever brought to Canada. In the sow, Knowle Sultana, I was equally fortunate in getting a prize. She is ten months old and a regular beauty, wonderfully even, great depth of side, standing on excellent legs and feet. Her breeding is gilt-edged. Her dam, Knowle Beauty II., won five first prizes and three cups in 1906, competing against all breeds. She was bred to Knowle Surprise, whose dam, Cholderton Buzzard, won gold medal at R. A. S., in 1906, and his sire, Knowle Bouncer, also first prize at same show. She farrowed a litter of 12 pigs, July 1st, eleven of which are living. They are a very fine, strong, even litter, without a spot or swirl. I feel that I have one of the best sows in Canada for her age. The pair will make a very valuable addition to Spring Brook herd."

Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be limited. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

FLEMING BROS., Chemists,
75 Church Street, Toronto, Ontario



Pleasant Valley Shorthorns

Herd headed by Imp. Ben Lemon =46160=, assisted by Bud's Emblem, 2nd-prize senior bull at Toronto, 1906, son of Old Lancaster 60068. Correspondence solicited. Inspection invited.

GEO. AMOS & SON, Moffat St. & P.O., C.P.R.
Farm 11 miles east of City of Guelph.

Shorthorns and Clydesdales

I am now offering 6 young bulls from 8 to 30 months old, all Scotch-bred, two of them from extra good milking families, and a few registered fillies of good quality.

JOHN MILLER, Brougham, Ont.
Clarendon St., C.P.R.; Pickering, G.T.R.

Glenora Shorthorns and Lincolns.

Imp. Marr Boan Ladys, Missies, Urys, and Miss Ramedens. All bulls of breeding age sold but the grand young bull, Lord Missie, Rich roan. Show bull anywhere. Fifteen months old. Will sell at a bargain. Lincolns and Shorthorns all ages for sale. Correspondence invited.

A. D. McGugan, Rodney, Ontario.

DOMINION SHORTHORN HERDBOOK WANTED.

The Dominion Shorthorn Breeders' Association will pay \$1 each for the following volumes of their herdbooks: Volumes 8, 9, 13, 14, 15, 16, 17 and 18. Parties having these volumes to part with, write for wrappers and mailing instructions to

W. G. Pettit, Sec.-Treas., Freeman, Ont.

JOHN LEE & SONS, Highgate, Ont.

SHORTHORNS & LINCOLNS

The champion herd of High Kent and Essex counties. For Sale: 6 choice young bulls, 3 reds and 3 roans, of grand type and quality; also good selection of young cows and heifers. Visitors welcome.

Queenston Heights Shorthorns

Two high-class Cruickshank herd bulls. Show animals in bull and heifer calves. Straight Scotch, Canadian and American registration. Easy prices.

HUDSON USHER, Queenston, Ontario.

The Salem Herd of Shorthorns

IS HEADED BY JILT VICTOR (IMP.). It contains a number of the most noted matrons of the breed. Write for what you want.

R. A. & J. A. Watt, Salem, Ont.
Elora station, G.T.R. and C.P.R.

John Gardhouse & Sons

Importers and breeders of Scotch Shorthorn cattle, Shire and Clydesdale horses, and Lincoln sheep. Call and see us.

Highfield P. O., Weston Station 3 1/2 Miles. Telephone.

SCOTCH SHORTHORNS

For sale: 7 young bulls, also my stock bull, Royal Prince =81241= (roan), sire of the two noted females, Fair Queen and Queen Ideal, World's Fair champion. H. K. FAIRBAIRN, Thedford, Ont.

Western Fair

LONDON, ONT.,

Sept. 6 to 14,
1907.

THE 40TH EXHIBITION WITHOUT A BREAK.

Stockmen will do well to attend, as the prizes are liberal.

The best interests of exhibitors and visitors will be looked after by the management.

Send for prize list and make your entry early.

W. J. Reid,
President.

A. M. Hunt,
Secretary.

Pure Scotch Shorthorns

We are offering 10 young bul's, fit for service, all from imported sires and dams, among them some choice herd bulls. Cows and heifers of all ages, including some excellent show heifers. One imported Clydesdale mare, four years old, with an extra good foal at her side. Young Yorkshires of both sexes. Long-distance telephone.

W. G. PETTIT & SONS, Freeman, Ont., Burlington Jct. Stn.

Shorthorns!

BELMAR PARC.

John Douglas,
Manager.

Peter White,
Pembroke, Ont.

Calves for sale by our grand quartette of breeding and show bulls:

Nonpareil Archer, Imp. Proud Gift, Imp.
Marigold Sailer. Nonpareil Eclipse.

Females. Imported and from imported stock in calf to these bulls.

An unsurpassed lot of yearling heifers.

AT "MAPLE SHADE"

Our young bulls are the best that our herd has ever produced. We can furnish Cruickshank bulls of high quality to head the best herds, and some that should produce the best prime steers. We have a bull catalogue. Send for one.

JOHN DRYDEN & SON, Brooklin, Ont.
Stations: Brooklin, G.T.R. Myrtle, C.P.R. Long-distance telephone.



Special Offering of Scotch SHORTHORN BULLS

9 just past two years old; 15 just over one year old; 7 just under one year old.
The best lot we ever had to offer in individuality and breeding, and prices are right. Catalogue.

John Clancy, H. GARGILL & SON,
Manager. Cargill, Ont.

PLEASE MENTION THIS PAPER.

QUESTIONS AND ANSWERS. Miscellaneous.

FARMING ON SHARES.

A works B's farm on shares. B finds everything, put in the wheat crop, and did all the plowing. A does all the other work. What share of hay, wheat, barley and oats would B be entitled to? Who should pay the threshing, and would A be supposed to leave the land plowed? Neither A nor B has any experience in sharing, and both agree to abide by decision of "The Farmer's Advocate."

Ans.—A properly-executed agreement covering all these points should have been drawn up at the outset, but since that was not done, the best we can do is to suggest one now, and without knowing the conditions of farm, etc., that is not easy. In working farms on shares, the division of expenses and proceeds between owner and tenant varies from one-third to forty per cent., so that 35 might be deemed a fair average. In other words, the owner, besides furnishing land, buildings, live stock and implements, pays 65 per cent. of taxes, repairs, etc. (tenant paying 35 per cent.), and owner receives 65 per cent. of all the proceeds. The tenant does all the work, including paying for hired help, and receives 35 per cent. of all proceeds. We should say that in this case the tenant should do the plowing, and put in an equal amount of wheat.

THE COST OF PLUMBING.

Re your article on bath-room fittings, in issue of June 27th, I have an estimate from a firm of plumbers of almost identical specifications at more than double the approximate figure you quote. Will you please advise me how the cost can be materially reduced? NEMO.

Ans.—The plumbing described in our issue of June 27th is not, by any means, the most expensive that could be installed, but is a good serviceable system, such as is put in many houses being erected to-day, a system that will give entire satisfaction if properly installed. But it would be an easy matter to double the cost without much apparent difference (to a lay reader) in the specifications, e. g., by using "extra heavy" instead of "medium" in describing the soil pipe, the cost would be materially increased; or, again, a bath of larger size, different style and finish can be put in costing more than double that described, a change of two or three words and the catalogue number being the only difference in specifications. You may be using a septic tank, which would cost twice as much as a cess pool; or, again, your plumber may be charging a higher rate of profit. Probably you cannot make a safe comparison unless you have your plumber figure on the specifications given in "The Farmer's Advocate" of June 27th.

FAILING TO FURNISH PEDIGREE.

I bought a pig from a breeder of Yorkshires the first of May, by mail. In due time, I received my pig, but no pedigree, nor have I received it yet. I have called his attention to it once. When ordering, I just said "one Yorkshire sow," and said nothing about the pedigree, supposing as a breeder and large advertiser he would send it to me just the same. What shall I do to get a pedigree for my pig? You may answer through the columns of your valuable paper. SUBSCRIBER.

Ans.—The breeder who does business in this style has little claim to being a business man in the best sense of the term. He not only does an injustice to the buyer who trusts him to deal fairly, but by giving cause for such complaint injures his own business and that of other breeders who advertise. We shall hope to hear of this case being made satisfactory, and wish to state here that where we receive reliable evidence of unjust or unfair treatment of customers by our advertisers, we shall refuse to continue their advertisements in our columns. In this case, we advise you to write the breeder again, demanding a pedigree eligible to registration within a reasonable time, and failing a satisfactory response, put the case in the hands of a solicitor. The man who advertises pure-bred stock is bound to furnish such a pedigree, and if he promises a registered pedigree, he is bound to furnish a certificate of registration.

MEAL WET OR DRY FOR PIGS.

Which is the most profitable to feed pigs meal, wet or dry? Would it be better to feed them the dry meal, and give them all they want to drink afterwards? If you had milk to give them, which would be the best way to give it, on the meal or separate?

SUBSCRIBER.

Ans.—Many prefer dry feeding of meal, claiming, with good show of reason, that the grain is more thoroughly digested. Sometimes there is a certain waste of feed, due to the hogs accidentally rooting a portion of it out when feeding. When the meal is fed wet, it should be in the form of a thick slop, and we believe it is better to soak it in the water or milk for a few hours ahead. What has been the experience of readers on these points.

THE SPICE OF LIFE.

Dr. Stalker, the well-known Scottish preacher, tells a good story of Sir John Steel, the famous sculptor. When he had the Duke of Wellington sitting for a statue, he wanted to get him to look warlike. All his efforts were in vain, however, for Wellington seemed, judging by his face, never to have heard of Waterloo or Talavera. At last, Sir John lost patience somewhat, and this scene followed:

"As I am going to make the statue of your Grace, can you not tell me what you were doing before, say, the battle of Salamanca? Were you not galloping about the fields, cheering on your men to deeds of valor by word and action?"

"Bah," said the Duke, in evident scorn. "If you really want to model me as I was on the morning of Salamanca, then do me crawling along a ditch on my stomach, with a telescope in my hand."

Herbert Parsons, President of the New York County Republican Committee, was talking in Albany against self-confidence in politics.

"To win," he said, "a man should never be sure of winning. Confidence and boasting, to my mind, always imply defeat. I'll tell you a story."

A man came shooting from a brightly-lighted window one night and landed with a crash on the sidewalk.

"It's all right," he said to the crowd that had gathered, as he stiffly arose. "That's my club, the Eighth precinct. I'm a Smith man and there's ten Jones men in there. I'm going back to them. You stay here and count them as they come out of that window."

He limped back into the club. There was a great uproar. Then a figure crashed through the window and struck the sidewalk with a grunt.

"That's one," said the crowd.
"No," said the figure, rising. "Don't start counting yet. It's me again."

THE POWER OF HABIT.

C. C. Hallinger, the famous tobacco planter, of Lancaster, Pa., said recently of the tobacco habit:

"It is a good thing that tobacco, used in moderation, is quite harmless, for I think it is one of the strongest habits in the world. Many a man can stop drinking who can't for his life stop smoking. Indeed, I have known men to throw over good positions only because they could not smoke in them."

Mr. Hallinger smiled.
"That is a good deal like the Irish diver, isn't it?" he said.

Down in Philadelphia one day a young Irishman applied at the wharves for a diver's post. He knew nothing of diving, but the strangeness of the work attracted him; and since he was a likely-looking chap, a firm took him on.

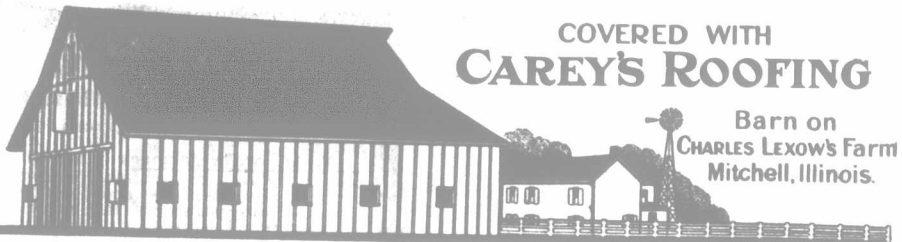
The next morning he was incased in a diving suit, the helmet was screwed on his head, and he was lowered down some thirty or forty feet to examine a sunken boat.

He went down well and bravely. He remained on the bottom some minutes, doing a lot of hard work. Then he signalled impatiently to be drawn up.

They drew him up, and he motioned to them to remove the helmet. As they started to do this, the foreman said:

"What's the matter, Mike?"
"Take this lid off me," he replied. "I'm done wid divin'."

"Why?" said the foreman.
"I'll never worruk," was the excited answer. "at any job where I can't spit on me hands."



The CAREY Idea: ONE Roof is Enough

DON'T YOU THINK one roof ought to be enough for any building? Charles Lexow, of Mitchell, Ills., recently became a convert to this **Carey Idea**. In 20 years or so, doubtless he will pay the sort of tribute to Carey's Roofing that H. L. Bonta, of Harrodsburg, Mercer Co., Ky., does, when he wrote us, April 23rd last:—"Some 15 or 18 years ago, I bought Carey's Roofing to cover a large barn. The Roofing is still doing good service."

CAREY'S FLEXIBLE CEMENT ROOFING

Is fire-resisting, wind and waterproof; will not Rot, Rust, Melt, Break or Dry Out. It is equally adapted to flat or steep surfaces; is easily laid on new buildings or over leaky shingles or metal roofs, with but knife and hammer as tools.

CAREY'S ROOFING is composed of the highest grade of woolen felt of our own manufacture, strong East Indian burlap and our own highly tempered asphalt cement compound, all compressed into compact, always flexible sheets. The Carey Patent Lap covers and permanently protects nail-heads.

Sold and shipped direct from our warehouses, conveniently located. Write for sample and our ROOF-BOOK—both FREE.

THE PHILIP CAREY MFG. CO., Toronto, Ont.; London, Ont.; Montreal, Que.

HOLSTEINS FOR SALE



Four imported and one home-bred bulls, from 8 to 13 months old; also our entire crop of spring bull calves, from week old up, sired by the grandly-bred imp. bull, Sir Howijie B. Pietertje, whose dam's record is over 82 lbs. milk in one day, and from great-producing cows of the most fashionable strains. Can spare a few cows and heifers from one year up; 75 head to select from. Cheese 13c. Don't delay if you want one from this herd.

H. E. GEORGE, Crampton, Ont.

RECORD OF MERIT HOLSTEINS

Herd 110 strong. Over 40 head now in the Record of Merit Two of the richest-bred bulls in Canada's head of the herd. For sale: 18 bulls, from 2 months to 1 year of age, all out of Record of Merit cows and sired by the stock bulls.

P. D. EDM, Oxford Centre P.O. Woodstock Station.

Fairview Herd Holsteins

Home of Pontiac Rag Apple, the cow that sold a few days ago for \$8,000. Highest price ever paid for an A. R. O. cow. I have her sire, Pontiac Korndyke, the greatest living sire of the breed, and also over 40 of his daughters, sisters to the one that brought the top price, and they are all good ones. Also bull calves by the best sires in the States. Write me, or come and look the herd over. Only seven miles from Prescott, Ont.

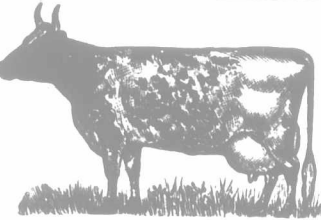
E. H. DOLLAR, Hevelton, St. Lawrence County, N. Y.

SPRING BROOK HOLSTEINS & TAMWORTHS

Have just decided to reduce my herd of Holsteins, and am offering 10 choice females of different ages, of rich breeding and high quality. Also 2 bulls 12 mos. old. Will make winners. Tamworths of different ages to offer. Come and see them. Don't depend only on writing. Notify when coming. **A. G. HALLMAN, Breslau, Waterloo Co., Ont.**

Holsteins and Yorkshires

R. HONEY, Brickley, Ont., offers a very choice lot of young bulls, also boars and sows to mate.



Ayrshires and Yorkshires

Our imported Ayrshires are now safely in our own stables. Three young bulls, balance females of different ages. Any for sale. We can now offer imported or Canadian-bred animals of any age, of the choicest dairy breeding, at lowest living prices. Write us. A few pigs only on hand. Information cheerfully given.

ALEX. HUME & CO., MENIE, ONT. Long-distance 'Phone Campbellford.

SPRINGBURN STOCK FARM, North Williamsburg, Ont., Ayrshires, both sexes and all ages; Berkshires, both sexes and all ages; Oxford Down sheep, a few choice ones left; Buff Orpington fowls, eggs \$1.00 per setting, \$4 per hundred. **H. J. Whittaker & Sons, Props.**

SHANNON BANK STOCK FARM FOR AYRSHIRES AND YORKSHIRES Young stock of both sexes for sale from imported stock.

W. H. TRAN, Cedar Grove, Ont.

AYRSHIRES FROM A PRIZEWINNING HERD

Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to **WM. STEWART & SON, Campbellford Stn. o. Menie P.O., Ont.**

When Writing Please Mention this Paper

ANNANDALE FINE STOCK FARM TILLSONBURG, ONT.

Premier sire, Prince Posch Calamity, whose dam and sire's dam average in official test 86 lbs. milk in 1 day and 26 lbs. butter in 7 days.

No stock for sale at present.

GEO. RICE, Tillsonburg, Ont.

"THE MAPLES" HOLSTEIN HERD

Is made up of Record of Merit cows and heifers with large records, and headed by Lord Wayne Mechtulde Calamity. Bull calves from one to five months old for sale.

Walburn Rivers, Falden's, Ont.

Lyndale Holsteins

Two bulls fit for service, sired by a son of De Kol 2nd's Butter Boy 3rd; also a number of bull calves, out of Record of Merit cows.

BROWN BROS, LYN. ONTARIO.

"GLENARCHY" HOLSTEINS!

43 head of big, deep-flanked, heavy-producing Holsteins, many of them milking from 50 to 60 lbs. a day on grass. Have only bull calves for sale now. A straight, smooth lot.

G. MAGINTYRE, Renfrew P.O. and Stn.

Maple Hill Holstein-Friesians

Bull calves from No. 1 dams, sired by bulls with great official backing. Write for prices.

G. W. Clemons, St. George, Ont.

QUEEN CITY HOLSTEINS

If you would like to purchase a young Holstein bull whose sire's dam has an official record of 60 pounds of milk and 26 pounds of butter in seven days, write to **R. F. HICKS, Newton Brook P.O., York Co.**

Hillview Herd of Prizewinning AYRSHIRE CATTLE.

All animals bred and carefully selected for size, constitution, long teats and deep-milking qualities. Select animals of both sexes for sale at reasonable prices. For further information and prices write

A. KENNEDY & SON, Hillview Stock Farm, Vernon, Ont. Winchester Station, C. P. R.

STOCKWOOD AYRSHIRES FOR SALE

All ages, from imp. and Canadian bred stock. Prices and terms to suit purchaser.

D. M. WATT, St. Louis Sta., Que.

Ayrshires 3 prizewinning bulls fit for service at reasonable prices, also younger ones for quick buyers.

N. DYMENT, Hickory Hill Stock Farm, Dundas Stn. and Tel. Clappison, Ont.

always does when I explode. That's a woman for you. She will goad a man till he can't refrain from saying the only comforting thing he knows to say; and then she is insulted, and leaves the room, and, likely as not, goes off, and wonders whether any man is really good enough for any woman, and all that kind of rot.

Now, I am a man, and to such the ways of woman are past all understanding. I had watched my Sallie, among our intimates, scintillating and witty, and, best of all, appreciated, liked, and listened to. Then, on the few occasions that we had in some unaccountable way broken into "that set," I had seen her sitting, expectant, eager to add a sparkler of thought to the frothy talk—I will not call it conversation. Her efforts usually were unavailing. They had no time for her. I, being on a salary, and not a princely one, and she attired in last year's gowns, were social mistakes—mistakes, it is true, to be overlooked.

If, in some lapse, Sallie wedged in the remark she had patiently and pathetically nursed, no one heard it. She could say nothing which could possibly interest "that set." But every gaze was intent, all ears opened wide, so not to miss any of the toads which hopped from the mouth of the dough-faced lady whose husband had made millions in speculation. Her choicest epigrams were encrusted with such verbiage that the shade of Daniel Webster would have hidden his diminished head, could he have heard.

And yet my Sallie tingled with joy at every chance which threw her into the company of "that set."

Well, the morning of the eventful day "dawned bright and fair," just as it does in novels. There was an excitement in our happy home which did not make for peace and contentment.

Our hired girl (nothing makes Sallie so provoked as for me to call our "maid" a hired girl) got impertinent, and threatened to quit, and nothing short of a raise in her wages would hold her.

Sallie fidgeted around, dusting the furniture after the maid had finished, running to the refrigerator to make sure that there was plenty of ice, and doing sundry other unnecessary stunts.

At noon the caterer came with his corps of assistants, and even I was impressed by his grand manner, and found myself saying, "No, sir," and "Yes, sir," to him.

Just as Sallie finally left the kitchen, with flushed cheeks and a victorious air, the telephone rang. Sallie, being summoned, was lightly informed by Mrs. Worthing that she was awfully sorry, but that she and Mr. Worthing were just about to take the train for the city. They had had a telegram, she condescended farther to explain, from the Appletons, inviting them to join them, and go with them that night to the opera, etc.

I have been married ten years, and I trust that I have learned to be loyal to the woman I promised to love and cherish. Therefore, I draw a veil over the thirty minutes following the telephone conversation. And let no man, unless he be a married man similarly situated, fancy that he can see behind that veil!

It ended by our inviting the Sextons and Wilsons to dine with us that night.

"My!" commented Mame over the 'phone when I talked to her—for it was I who did the talking—"seventy-three, you say; you must be dead swell!"

I could not explain to her that to have told that major-domo in the kitchen to serve dinner an hour earlier, to suit the exigencies of the occasion, was as impossible a feat as to inform him that two of our guests had gone off on the train at the summons of the other two, who had even forgotten they were invited!

"He must never know!" Sallie had whispered, in her final gasp of despair. And I had assured her he should never know.

"They must never know—the Sextons and Wilsons," she had managed to articulate, and had been told to trust all to me.

Never before had I risen superior to my Sallie. But, in justice to her, I must explain that my courage, in the face of her weakness, was due to the fact that, if I had to go in debt for a function, I much preferred to have Luke Sexton and Jim Wilson eating it up than those creatures for whom it was planned.

By evening Sallie had braced up, and begun to take notice. She wore her new gown, and presided with grace and dignity at the elaborate course dinner, faultlessly served by the major-domo's trained waiters.

It was evident that the Sextons and Wilsons were simply dumbfounded at the elegance of the affair. "Say, Charley, this is what I call a function, sure enough," Louise whispered to me, with a glance over her shoulder to make sure that one of the factotums didn't hear her.

Never in that little old house was there so pompous and dignified an occasion. It began with Sallie, and finally infected us all. We rose above the gay gabble which ordinarily prevailed at that board, with that "crowd" (not "set").

We spoke in hushed tones of high ideals with the oysters. With the soup we toyed with Carlyle's "French Revolution." The fish, by a sequence of ideas, suggested the evolution of man. With the game, we discussed Lucullus and his gorgeous feasts. The salad provoked us to airy persiflage, which, somehow or other, was not airy. Even the wines, which followed the courses in the proper manner, laid down by the fellows who know, instead of lightening, only deepened the solemnity.

We ate, we drank, but we did not make merry. It was too much to ask with all those American Beauty roses staring us in the face and the waiters staring us in the back.

Of course, the women withdrew and left us men to our wine and walnuts. Sallie had insisted upon that. She was not willing to alter her original plans in any particular, for fear that cook fellow would think it strange.

A gloom like the pall of death fell on us three old chums after the women left us. I rehearsed to myself that formula used in dismissing servants: "Henry, you may withdraw. I will ring if we need anything." But when I cleared my throat and opened my mouth to speak, all I said was, "Mr. Sexton, have another cigar."

"Mr. Sexton! My old pal, Luke! Well, well, it's queer how the microscope of snobbishness gets into a fellow's blood! And it's alarming that the presence of a dumb waiter can make old friends act like new!"

Jim Wilson had heard traditions about the witty after-dinner stories men tell to each other after the women withdraw, so he essayed one. It was so pathetic that I surreptitiously wiped my eyes with my silk handkerchief.

But as all things, good and bad, come to an end in time, so did that dinner. After a respectable and what I deemed usual lapse of time, I rose and said, dignifiedly, "Gentlemen, shall we rejoin the ladies?"

After our guests had departed, with proper decorum, and the hired servants had been paid, I looked at Sallie.

And, upon my word, even though there was nothing left to jingle in my pockets but my night key and my Chinese pocket-piece, I felt pity for her. So I said, cheerfully: "Well, old girl, I'm glad we had those people here to eat up the truck. I fancy we surprised them with our style. But what I've been thinking is—this is a conundrum—if it was stiff with intelligent people like the Sextons and Wilsons, how stiff would it have been with the Appletons—"

"Never mention that name to me again," vehemently commanded my wife.

"Amen!" I fervently responded—**IM. W. Jarrell, in Boston Cooking-school Magazine.**

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GOSSIP.

A New Yorker, who is accustomed each year to pass a few weeks with a farmer in Dutchess County, says that once, in notifying the latter of his intention to make the usual visit, he wrote as follows:

"There are several little matters that I should like to see changed if my family and I decide to spend our vacation at your house. We don't like the girl Martha. And in the second place, we do not think that it is sanitary to have a pig-sty so near the house."

In reply, the farmer said: "Martha went last week. We ain't had no hogs since you were here last September."

Before a great fire of logs in Helicon Hall, the seat of his Utopian colony, Upton Sinclair one snowy night talked of the injustice of the private ownership of land:

"A tramp was one day strolling through a wood that belonged to the Duke of Norfolk. The Duke happened to meet him, and said:

"Do you know you're walking on my land?"

"Your land?" said the tramp. "Well, I've got no land of my own, so I'm obliged to walk on somebody's. Where, though, did you get this land?"

"I got it from my ancestors," said the duke.

"And where did they get it from?" went on the tramp.

"From their ancestors," said the duke.

"And where did their ancestors get it from?"

"They fought for it."

"Come on, then," said the tramp, fiercely, as he pulled off his coat, "and I'll fight you for it."

"But the duke, retreating hastily, declined to accept this fair offer."

PERILOUS INDORSEMENT.

My savings, aside from real-estate holdings, were invested in a bunch of cattle ready for the market. I owned a small farm, well improved and unencumbered by mortgage. I enjoyed a reputation for thrift and honesty.

I valued my cattle at one thousand dollars. One day Martin G— came to see the cattle. Mart dealt a little in live stock as well as many other kinds of property.

"I have a few notes here," said he, "that I got in trade. They are from fifty dollars to one hundred and fifty dollars apiece. They will aggregate, figuring in the accrued interest, a few dollars more than a thousand, but, as I'm going to move away soon and don't want to bother collecting them, I'll just give you the bunch for the cattle."

Upon examining his stock-in-trade, I replied that I was not informed as to the financial standing of the men whose signatures appeared thereon.

Mart seemed to hit a plan. "I'll tell you what I'll do," said he. "I'll sign the notes over to you and we'll call it a trade, provided you find the paper good. You just keep the cattle in your possession until day after to-morrow. That will give you time to-morrow to drive to town and see your banker about the notes."

Next day, as my banker carefully examined the notes, he occasionally shook his head. He considered a few of them doubtful, and the remainder worthless. "And," he added, "I don't know as Mart's indorsement helps them very much."

The morning following, Mart was on hand bright and early. Of course, I assured him at once that I could not trade.

"All right," he replied, "the stuff's off; you keep the cattle, and I'll take back the notes. But say," he added, "let's see. Oh, yes; I signed the notes over to you, so to keep the thing straight, it will be necessary for you to sign them over to me."

Some affairs outdoors were demanding my immediate attention, and, not stopping to think of the consequences, I hurriedly scrawled my signature beneath that of the trader.

Mart drove to town, cashed the notes at a bank, and departed, for aught I know, to a far country beyond Jordan. My indorsement had made the paper negotiable.

I have not quite finished paying off those notes yet.—T. C. M., in Saturday Evening Post.

Sir George Reid, R. S. A., is going to paint the portrait of Mr. Wm. Duthie, Collynie, the noted Shorthorn breeder, to be presented to him by his friends, the breeders of Great Britain and other countries.

The good old gentleman was engaged in the, to him, always pleasant duty of bringing the light of rational enjoyment into the dark lives of the poor, and as he went through the ranks of the working girls he was entertaining this Yuletide his kindly smile shone on all sides. His tactful remarks were not for the few and favored, they were for all. His wish was that every guest should be at her ease, and he attained his end. This was made plain in a somewhat embarrassing manner, for presently a shrill voice was heard above the conversation:

"My word," said the girl the voice belonged to, "ain't the bishop a shocking flirt!"

William Waldie, Stratford, Ont., writes: "I have recently sold the following Shorthorns: To Chas. Fryfogal, North Easthope, one bull; to Jacob Neeb, Brocksden, a bull; to Fred McIntosh & Jas. McGregor, St. Mary's, a bull; to Patrick Kelly, Fairview, a bull. These, I think, are about as good a lot as is generally found in one man's barn. To Adam Smith, St. Mary's, a three-year-old cow and her bull calf, an extra nice pair for a man to start off with. And last, but not least, the stock bull, Star Prince, to John Gibson, Denfield. This is the kind of bull that generally does a man some good, he being a very low, thick bull, carrying a wonderful amount of natural flesh, also being an extra well-bred bull, his dam, Imp. Sunny Princess, a Bruce Mayflower, being almost a full sister to Prince Sunbeam (imp.), a Toronto champion, his sire, Lavender Star, a pure Cruickshank Lavender, being used for some time in the Bruce herd before being imported to Canada, then doing good service in the Cargill herd. Mr. Gibson started out to buy one of the best bulls he could find, and it is needless to say he travelled a good many miles, and after he bought him, he said, 'Well, I have bought one of the best bulls I have seen, any way.' And Mr. Gibson generally knows a good thing when he sees it. I think by the way his calves are coming along he has made no mistake. I still have a number of nice heifers for sale, which will be priced right to immediate purchasers. As I am now out of a stock bull, I would be pleased to hear from anyone having an imported bull to sell."

"I got it from my ancestors," said the duke.

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I Will Import for Showing and Breeding SHROPSHIRE, COTSWOLDS, HAMPSHIRE, OXFORDS, SOUTH DOWNS, or any other of the English breeds of Sheep, Cattle, or Horses, for those wishing to make an importation, large or small, this season. The best of care in selecting and delivering will be exercised, and the commission will be reasonable. Write me at once for what you want. ROBERT MILLER, STOUFFVILLE, ONTARIO.

250,000,000 Sheep Every Year Dipped in COOPER DIP Has no equal. One dipping kills ticks, lice and mites. Increases quantity and quality of wool. Improves appearance and condition of flock. If dealer can't supply you, send \$1.75 for \$2.00 (100 gallons) packet to National Drug and Chemical Co., Limited, Toronto and Montreal.

South-downs ROBT. McEWEN, Byron, Ont. Long-distance 'phone.

SHIP US YOUR WOOL Or write: E. T. CARTER & CO., Toronto, Ont.

Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live-stock organization in the world. G. Howard Davidson, Pres., Millbrook, N. Y. Address correspondence to MORTIMER LEV BRING, Secretary, Lafayette, Indiana. OR

SHROPSHIRE Can sell about 80 Ram Lambs. Mostly by an Imp. Buttar-bred ram. GEO. HINDMARSH, Altona Craig, Ont.

THE only medium which conveys weekly to the farmers of Canada the advertiser's place of business is the Farmer's Advocate and Home Magazine.

Farnham Farm Oxford Downs

We are now offering a number of select yearling rams and ram lambs, sired by imported ram, for flock headers; also yearling ewes and ewe lambs. Price reasonable.

Henry Arkell & Sons, Arkell, Ontario. Arkell, C. P. R.; Guelph, G. T. R.

Fairview Shropshires

Orders now booked for shearing and lambs of both sexes, fitted for showing or sold condition. Don't forget that this flock has produced more winners than any other flock in all America, and stock sold are producers of winners. J. & D. J. CAMPBELL, Fairview Farm, Woodville, Ont.

Dunrobin Stock Farm Clydesdales, YORKSHIRES, Shorthorns We are booking orders for breeding stock from our grandly-bred Yorkshire sows. Twenty-five sows to farrow in the next few weeks. Unrelated pairs a specialty. Write for prices and particulars. DONALD GUNN & SON, Beaverton, Ontario. G. T. R., C. N. O. E. stations 1 1/2 miles from farm. Customers met on notification.

LARGE ENGLISH YORKSHIRES

Pigs of the most approved type of both sexes all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and Bacon prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both the champion and grand champions. Prices reasonable.

D. G. FLATT & SON, Millgrove, Ont.

Maple Grove Yorkshires

Boars and sows of the best possible breeding, with lots of size and full of quality, comprise our herd. We are winning at the leading shows in Canada. We have a fine lot of sows and boars ready for service, also both sexes of all ages—yearlings. We guarantee everything as represented. Prices always reasonable. Write at once. H. S. McDiarmid, Fingal P. O., Sheddin Stn.

LARGE ENGLISH BERKSHIRES

Choice young pigs from March and April litters. A few fall pigs and two young Shorthorn Bulls.

JOHN RACEY, Lennoxville, Quebec. When Writing Please Mention Advocate

OAKDALE BERKSHIRES Largest Berkshire herd in Ontario. Imported. For sale: Sows bred and ready to breed, boars ready for service, and younger ones, all ages, richly bred on prize-winning lines and true to type. Everything guaranteed as represented. Long distance 'phone. L. E. MORGAN, Milliken P. O., Co. of York.

Elmhurst Berkshires With our recent importation, personally selected from the best herds in England (some of them prizewinners), we have the most select herd of Berkshires in Canada. A grand group of breeding and show matrons. Our new imported boar, Stall Pitts Middy won 1st year at Oxford, 1907, and also Compton Duke, Imp., and Compton Swell, Imp., head of the herd. Mail orders receive careful attention. Brantford shipping station. H. W. VANDERLIP, Gainsville P. O., Brant Co., Ont.

NEWCASTLE Herd of Tamworths and Shorthorns. We have for quick sale a choice lot of boars and sows from 2 to 6 months old, the produce of sows sired by Colwill's Choice and Newcastle Warrior, both our own breeding, and winners of sweepstakes and silver medal at Toronto, 1901-02-03-05. Several very choice sows bred to our imported boar. Pedigree furnished with every pig. Several choice heifer calves and heifers in calf to our present stock bull. All of high show quality. Prices right. Daily mail at our door. Colwill Bros., Newcastle, Ont.

PINE GROVE BERKSHIRES! Bred on aristocratic lines and from high-class show stuff, sired by the Toronto winner, Willow Lodge Leader. For sale are young animals of both sexes—4 and 6 months of age; of choice-bacon type and showing form. W. W. BROWN, RIDGE, Ashgrove P. O., Milton Sta.

Mount Pleasant Tamworths and Holsteins. For Sale: Pigs of either sexes, from 6 weeks to 7 months; pairs not akin; also bull and heifer calves under 5 months. 'Phone in residence. BERTRAM HOSKIN, The Gully P. O.

CHESTER WHITE SWINE and SHROPSHIRE SHEEP. Right in quality; right in price. Come and see, or apply by letter to W. E. WRIGHT, Stanworth, Ont.

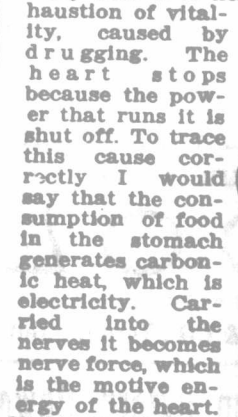
Elmfield Yorkshires! 40 pigs 2 to 5 mos. Boars ready for service. Sows by S. H. Chester, Aug. 1st; also sows ready to breed. Pairs not akin. Prices right. G. B. MUMA, Ayr, Ont.

Mention Advocate

HOW DRUGS WEAKEN THE HEART

So many people are doping their stomachs with drugs and never stop to think of the harm that will come of it. Constant drugging always weakens the heart.

You hear of a great many deaths due to heart failure, but you never hear of what makes the heart fail. The heart never fails without a reason. Find a reason and you will find the actual cause of death. I say that it is nearly always exhaustion of vitality, caused by drugging. The heart stops because the power that runs it is shut off. To trace this cause correctly I would say that the consumption of food in the stomach generates carbonic heat, which is electricity. Carried into the nerves it becomes nerve force, which is the motive energy of the heart.



Naturally, if the heart does not receive a sufficient quantity of this nerve force its action will become weaker, and, like the engine whose steam is run down will stop altogether. That is heart failure.

Now, strong drugs weaken the stomach so that it cannot generate enough of this force, and a weakening of the heart's action results.

The reason any organ fails to do its work is because it lacks strength. If there was any nourishment in drugs they might bring about a healthy change, but you know there is not. Drugs are drugs, stimulants, narcotics, antidotes, poisons, not food. Food is needed to build up new strength. Electricity is nerve food—nerve life. It soaks into your nerves and vitals just like water soaks into a sponge. It warms and strengthens the parts which drugs cannot reach.

Electricity is a relief from the old system of drugging. It does by natural means what you expect drugs to do by unnatural means. It is Nature's way of curing disease, for it gives back to the nerves and organs the power they have lost, which is their life.

I believe in finding the cause of every ailment and removing it. If it is in the stomach, I restore the power there; if in the nervous system, I build up the nerve force; in the kidneys, the blood or the organs of generation, I find the cause and supply to the body the needed help, and after I have removed the cause Nature will cure the disease.

Dr. McLaughlin's Electric Belt is easily and comfortably worn next to the body during the night, and gives out a continuous stream of that strength-building, nerve-feeding force which is the basis of all health.

Dear Sir,—The trouble for which I purchased your Belt has entirely disappeared. It was only after a great deal of hesitancy and enquiry from patients that I bought one of your Belts, and I am now glad that I did. My back is perfectly well, and I never was so strong or felt as well as I do now.

Geo. A. Stark, Owen Sound, Ont.
FREE TO YOU.

Get my \$4 page book describing my Electric Belt, with illustrations of fully developed men and women, showing how it is applied.

This book tells in plain language many things you want to know, and gives a lot of good, wholesome advice for men.

If you can't call, I'll send this book, prepaid free, if you will enclose this coupon.

Consultation free. Office hours—9 a.m. to 5.30 p.m.

Dr. M. S. McLaughlin,
112 Yonge St., Toronto, Can.

Please send me your Book free.

Name

Address

19-6 07

YORKSHIRES of Choicest Type and Breeding.



I have on hand 75 brood sows of Princess Fame, Cinderella, Clara, Minnie, Lady Frost and Queen Bess strains. My stock boars are true to type and richest breeding. For sale are a large number of sows bred and ready to breed, boars fit for service, and younger ones of both sexes. Pairs and trios not akin. J. W. BOYLE, P. O. Box 563, Woodstock, Ont.

Large White Yorkshires



Am offering at the present time a number of choice boars and sows of breeding age, also some imported sows in pig. Also young pigs of spring farrow direct from imported stock. Pairs and trios supplied not akin. Write for what you want.

H. J. Davis, Woodstock, Ont.
Breeder of Shorthorns & Yorkshires



MONKLAND Yorkshires

Imported & Canadian-bred

We keep 35 brood sows, and have constantly on hand between 100 and 200 to choose from. Our supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

JAS. WILSON & SONS,
FERGUS, ONT.
G. T. R. and C. P. R. Long-distance Phone

Woodstock Herd of Large English Berkshires

For sale: Boars fit for service. Sows ready to breed. March and April pigs supplied in pairs and trios not akin; bred from my imported and home-bred sows. My pigs are all bred on prizewinning lines, and true to type. Come and see, or write for prices. DOUGLAS THOMSON, Box 1, Woodstock, Ontario. C. P. R. and G. T. R. stations.

Glenburn Herd of Yorkshires.

Winner of gold medal three years in succession. Young boars and sows of different ages. Also a grand good Shorthorn bull (roan) 7 months old. fit to head any herd.

David Barr, Jr., Box 3, Renfrew, Ont.

Willowdale Berkshires

Young boars and sows, 3 and 6 months of age, out of imp. sows, and sired by imp. Polgate Doctor, Royal Masterpiece, a son of the \$2,500 boar, Masterpiece, and some of them imp. in Jam. Satisfaction guaranteed.

J. J. WILSON, Milton P.O. and Sta.

ROSEBANK BERKSHIRES

Present offering: Boars fit for service. Sows ready to breed. Choice young stock ready to wean, sired by Maple Leaf Doctor and Sallie's Sambo (imp.), a Toronto winner.

Lefroy, G.T.R. JOHN BOYES, JR., Churchill Ont. Long distance phone

GOSSIP.

Chairman—I'm sure we be all very sorry our secretary is not here to-night. I cannot say we miss 'is vacant chair; but I do say we miss 'is vacant face.

A remarkable breeding record of a Belgian mare, owned in Iowa, is vouched for by a correspondent of Wallace's Farmer: She is eight years old, and has given birth to eight live colts. When she was four years old she gave birth to her first colt, in the spring following (spring of 1904) she gave birth to another, in 1905 a pair of mule colts, in 1906 a pair of horse colts, and the present spring of 1907 another pair of mule colts. The twins were all well matched.

On one occasion when he was busy, President Lincoln received a delegation of men who were endeavoring to hurry the passing of some petty bill. When they entered, Lincoln looked up gravely and said:

"If you call the tail of a sheep a leg, how many legs will the sheep have?"

"Five," said the spokesman.

"No," replied Lincoln, "it would only have four. Calling the tail a leg wouldn't make it one." The delegation departed in discomfiture.

G. B. Muma, breeder of Yorkshires, ordering a change of advertisement, writes: "I have a few sows, sired by Summer Hill Chester (imp. in dam), bred to Summer Hill Edward 2nd (imp. in dam), due to farrow about first of August, also some young sows ready to breed. I also have some young boars from imported-in-dam sow and Duke Charles boar, also a couple of boars from imported sow and boar. I also have young pigs nursing that will be ready to wean in a couple of weeks, some sired by Duke Charles, from Duchess of York and Elmfield Duchess, some from Maud and Summer Hill Edward 2nd. All choicely-bred hogs, and prices will be right."

The first shipment of Western grass lambs of the season reached Chicago July 1st, being the earliest in many years past; in fact, old traders do not recall a season when the vanguard of the Westerners reached the Yards so early. This initial shipment included some 1,700 very choice lambs, averaging around 60 lbs., which sold at \$7.60, with some culls out at \$6.25. The good condition of these lambs forecasts an excellent grade of grass mutton from the West this season, and this is also borne out by the very favorable reports from practically all sections of the range country, indicating an abundance of feed and water. The first Idaho range lambs to reach Chicago last year came on July 15th, and sold at \$7.85.

H. S. McDiarmid, Fingal, Ont., writes: "Our trade in Yorkshire pigs is developing beyond our expectation. We are shipping out boars and sows of different ages right along, and the satisfaction of it all is to have our customers say they have received good stock, and are well pleased. We are trying to please everybody, because we believe a satisfied customer our best advertisement. We have added to our herd lately a young stock boar to which we are breeding our young sows. He is a fine large hog, possessing strong character and of showing merit, and is a most promising sire. We have recently imported a large sow from England, which has a show-ring record. She is raising a fine litter of imported pigs. Anyone wanting Yorkshires of high feeding qualities should write us."

W. G. Milson, Goring, Ont., advertises for sale the Shorthorn bull, Royal Prince (imp.) =36092-, and writes: "His breeding cannot be surpassed. He is of the Kilblean Beauty family that produced Geo. Harrison's famous Royal winner, Count Beauty, and Deane Willis' Royal champion, White Heather. He was got by the Missie bull, Mystic Archer (75123); he by the great Scottish Archer, dam by William of Orange, second dam by Athabasca. The three greatest sires of their day in Scotland. He was used successfully in the herd of H. Smith, Exeter, previous to mine, and not only proved himself a successful getter, but is the sire of many prizewinners. He is still as smart as a yearling, and as useful as ever."

Kidney Disease And Its Danger.

Kidney disease comes on quietly—may have been in the system for years, before you suspected the real cause of your trouble. There may have been backaches, neuralgia, sciatica, rheumatism, etc. Perhaps you did not know these were symptoms of kidney disease, so the trouble kept on growing worse, until disturbances of the water appeared, or there was gravel or retention of urine, or some such sign of kidney trouble.

Doan's Kidney Pills should be taken at the first sign of anything wrong; they strengthen the kidneys and help them to filter the blood properly—help them to flush off, and carry away with the surplus water, all those impurities which the blood gathers up in its circuit of the body.

Mrs. Alfred LeBlanc, Black Cape, Que., writes: "I feel it my duty to say a word about DOAN'S KIDNEY PILLS. I suffered dreadful pains across my back—so bad I could not stoop or bend. After having used two boxes I now feel most completely cured. I highly recommend DOAN'S KIDNEY PILLS."

SUNNYMOUNT BERKSHIRES.

Sunnymount Berkshires are unsurpassed for ideal bacon type and superior breeding. For immediate sale: A few choice boars from 5 mos. up to 15 mos. old.

JOHN McLEOD Milton P.O. and Sta., C.P.R. & G.T.R.

Fairview Berkshires

Bred from imported and Canadian-bred sires and dams, and bred on prizewinning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boar.

HENRY MASON, SCARBORO P. O. Street cars pass the door.

MAPLE LEAF BERKSHIRES!

Large English breed. Now offering King of the Castle sows, and Polgate Doctor sows, bred to British Duke (imp.). Also young boars and sows for sale, 10 and 12 weeks old. Joshua Lawrence, Oxford Centre P. O. Woodstock Station.

Glenhodson Yorkshires!

A few choice young sows in farrow; also young pigs from three to six months old. Satisfaction guaranteed. Long-distance phone at farm.

GLENHODSON COMPANY, Lorne Foster, Mgr. Myrtle Station, Ont.

Fairview Berkshires

Are second to none. My herd has won high honors wherever shown. Am now offering sows bred and ready to breed, and younger ones of both sexes, the get of Masterpiece and Just the Thing. An exceptionally choice lot.

JOHN S. COWAN, Donegal P. O., Milverton Sta.

Meadowbrook Yorkshires

Young stock of both sexes. A number of sows old enough to breed, all sired by Imp. Dalmeny Topman. Everything guaranteed as represented.

J. H. SNELL, HAGERSVILLE P. O. & STATION.

Duroc Jerseys.

Sows ready to breed. Young pigs, either sex, ready to ship. Canada Boy (imp.) 19997 heads our herd. MAC CAMPBELL & SON, Harwich, Ont.

IMPROVED LARGE YORKSHIRES—Herd headed by the famous Summer Hill Gladiator 9th and Dalmeny Topman 2nd (imp.), and some imported sows of good breeding and quality. Stock for sale at all times. GEO. W. SMITH, Haysville, Ont. New Hamburg, G.T.R., or Bright on Buffalo & Lake Huron R.R.

For Sale—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old, pairs not akin; express charges prepaid; ped. grees and safe delivery guaranteed. Address E. D. GEORGE, Putnam, Ont.

Yorkshires and Tamworths—Either breed any age, both sexes; sows bred and ready to breed. Yorkshires bred from imp. sire and dam. Tamworths from Toronto winners. Pairs not akin. As good as the breeds produce. CHAS. CURRIE, Schaw Sta., C.P.R. Morrison P.O.