

**PAGES
MISSING**

THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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animal is shipped he carries with him to the best market hide and offal. Furthermore, to ship meat to England in the best condition, the trade would have to be confined to the late summer and early fall, and the extensive abattoir and cold-storage appliances on railway and steamer would be idle most of the year, while the sudden importation of large quantities of Canadian meat into the British market would seriously lower prices there.

On the other hand, one or two ranchers met would gladly see a meat trade built up, and believed it would be practicable. One of the largest ranchers pointed out that against the disadvantage of the hide and offal being left in the poorer market, there was the substantial difference of \$14 for meat, as compared with \$30 per head on the hoof for shipment to Liverpool, these figures having been quoted by the C. P. R. when the railroad authorities had gone into the matter. The difficulty entailed by the short season might be largely overcome by detaining some of the meat for a time in cold storage on this side. To us it seems possible that too much may be made of this danger of deluging the British market with Canadian beef. As it is now, the range cattle all land within a few months, and we fail to see why the congestion should be so very much more disastrous in the case of meat than in the case of beef that has to be slaughtered promptly on arrival. The British market is big, and Canada's whole export of range beef is swallowed up without depressing values disastrously. As the West gets settled, and the beef is produced on farms rather than ranches, there would seem to be no good reason why its marketing should not be spread more evenly over the year, a development that would seem decidedly beneficial, whether the product is marketed on the hoof or in refrigerators and cans.

Many boys fancy that fluent cursing, whiskey drinking and smoking are short cuts to manhood. Would that they might see themselves as others see them.

Bring Royal Mail Service Up-to-date.

"The country moves faster than the Dominion Post Office Department," is the title of an editorial in "The Farmer's Advocate," Winnipeg, criticising the tardiness of this branch of the public service in placing its facilities within the reach of new settlers. Among the defects pointed out are insufficient accommodation at the general-delivery wickets in rapidly-growing cities; slowness in supplying post offices in newly-settled districts, and the making of long contracts for stage mail service in sections where impending construction of railways renders such long contracts unwise. The people tributary to many branch lines in the West have had to put up with a long wait for a decent mail service after the road has been giving a passenger service for months. There is need for more elasticity in the Post Office Department, and if it be short-handed, the Minister should take steps to remedy that lack. In these days settlements such as those between the main lines of the Canadian Pacific and the Canadian Northern should not have to drive twenty, thirty or more miles for mail, which, even then, can be had only weekly; nor should inhabitants of old and thickly-settled districts in Eastern Canada be limited to a semi-weekly or thrice-a-week service. Far be it from us to counsel extravagance in the Post Office or any other Department of the Government service. We commend the thrift and enterprise with which it has been operated for the past decade, but economy may be carried too far. The mails are one of the great modern conveniences, not to say luxuries, of life, and provision of the best possible service in country districts is not only a measure of justice to the nation's greatest class of wealth-producers and taxpayers, but is a highly necessary means of improving country conditions, and thus retaining on the soil a satisfied class of husbandmen. We can get along, if need be, without a postal department surplus, but an improved service in rural districts is urgently needed, and we trust the new Postmaster-General, Hon. Mr. Lemieux, will perceive and take advantage of this opportunity for a stroke of progressive statesmanship.

that the many thousands of visitors who frequent that popular agricultural gathering may have an opportunity of comparing the points of the Shire horse that have made the breed so valuable and popular with those of other breeds of heavy horses that will be present upon that occasion.

A general desire was expressed that Canadian and United States farmers should have an opportunity of inspecting high-class specimens of the breed. It has already been announced that as an incentive to agriculturists at home and abroad, and more especially to those interested as breeders or users of heavy draft horses, His Majesty the King has decided to send some typical Shires from Sandringham, and has asked Lord Rothschild to send several of his representative horses from the Tring stud. These will appear for exhibition only, and not to compete for prizes, at the following places on dates mentioned: The Canadian National Show, at Toronto, August 27th to September 6th; Canadian Central Show, at Ottawa, September 7th to 15th; Western Fair, London, Ontario, September 7th to 15th; and the United States Royal, at Kansas City.

Accompanying the breeding animals are two geldings, five and six years old, respectively, the former a dark brown, winner of first prize in his class at Peterborough the other day; the other a bay, of proportionate shape and good quality, that has not been exhibited. These horses are more representative of the propelling powers of the Shire than as show geldings for a city team, being very powerfully built and standing upon short and wearing legs.

The breeding section must be looked upon as a fairly representative collection of the improved Shire, displaying especially the desired quality of hair and bone, and with generally good pasterns and feet. They do not present any excesses, either in the way of size or weight, neither have they been forced in condition beyond the ordinary course, the brood mare having nursed her foal and the adult stallions having just concluded a very heavy service season, so that breeders on the other side will, in this importation, see the Shire as it should be.

It is to be hoped that many Canadian and United States agriculturists will visit the various exhibitions and examine for themselves the specimens of the Shire breed that will be placed before them. These notes may be helpful in calling attention to the breeding and characteristics of the animals that have been sent to represent the breed. —[Live-stock Journal.]

HORSES.

Shire Horses for Canadian Shows.

THE PROPERTY OF THE KING AND LORD ROTHSCHILD.

During the period of more than twenty years that has elapsed since the foundation of the Shire Horse Society, the breed has made more rapid strides in public favor, both at home and abroad. This is doubtless attributable to the great improvement that has taken place in the cardinal points of the breed, as well as to the fact that by greater attention devoted to it at home, higher prices have resulted, and these, coupled with the greatly-increased practical value of Shire geldings, have also attracted the foreigner from all parts of the world. Indeed, the Shire gelding has arrived at the very highest standard of excellence, both as regards his ability to propel loads and to stand the wear of the streets, and also as regards the prices paid for the animals when ready for town work. Ample evidence of these facts is found in the fact that not only are Shire geldings in the greatest demand and at the highest level of prices in our own great horse-using cities of London, Liverpool, Manchester, Leeds, and other places, but also in Dublin and Belfast, and elsewhere throughout the United Kingdom, while recently there has been a demand for these horses from several populous centers on the continent of Europe and America. Breeders there of late have become much more anxious to avail themselves of breeding Shires to give weight and value to their heavy horses. For some years the trade in Shires for breeding purposes for the western continent has been somewhat languid, but few animals of the highest improved Shire type have found their way thither up to the present. The reason for this probably is to be found in the very high prices that have prevailed for this kind of horses at home. The desire of Canadian and American breeders to become possessed of the better or improved type of Shire has now become so keen that recently a number of very useful horses have been exported to those destinations. A letter from Dr. Orr, of the Canadian National Exhibition, to Mr. Sloughgrove, the Secretary of the Shire Horse Society, expressed the desirability of Shire breeders forwarding a representative exhibit of horses of the breed for exhibition at the Canadian National Exhibition at Toronto this autumn, so

Draft-horse Registration.

Editor "The Farmer's Advocate":

With your permission I will encroach on your valuable space, with a view to catching the attention of the directors of the Clydesdale Horse Society. Some years ago I bought a filly, her dam being a registered Clyde, but having been bred to an imported Shire horse, hence I have a grand individual, that has gained a reputation for herself, both as a breeder and in the show-ring. Now, what I would like to claim, is that the dam's breeding should count for something, and I don't think the society would be making a very grievous mistake if, after a slight deviation of this sort, they would admit their progeny to registry with two or three crosses instead of four and five. Hoping this may draw attention to the matter, and lead to its discussion in your columns, I remain an interested
Bruce Co., Ont.
OLD SUBSCRIBER.

Judging Horses.

No man is more adversely criticised than the average horse-show judge. Every exhibitor thinks he owns the only "good" horse in the ring, and prejudice so blinds him that he cannot, or will not, see the better points of those owned by his competitors, and if the judge does not agree with him, he either does not know his business, or has been unduly influenced, or even "bought." He forgets that there are not enough ribbons to go around, and that it is the nicest thing in the world to accept defeat with a good grace, and also that a judge probably does not, in a majority of cases, know any of the exhibitors, and would not favor one of them if he did. "A fair field and no favor" has always been my motto, and always will be as long as I judge horses.

Do I prefer one or more judges? In answer to this, would say I prefer the single-judge system myself; then there is no other person on whom to put the responsibility, and you simply have to "face the music"; and, again, I can devote my whole attention to the matter and concentrate my mind on what is before me, with no one to "butt in" and say, "What are you going to do?" I would, however, always prefer having a referee near by, so that in case of a disputed point, or urgent necessity, he could be called in and consulted.

Very often men who have the reputation of being good judges do not merit the title, and are totally at sea when they get into a ring. To me the first two of these classes at a show are the

most difficult to judge, chiefly on account of one or other of your colleagues either being impractical, or not able to decide for himself. In either case if they find out, as they generally do, that there is one good practical fellow in the ring, they usually get around him and try to find out which animals he prefers, and act accordingly; or, again, such men may have been put there by some particular exhibitor, and will fight for his friends' entries every time. A good judge is "born, not made," and "would-be's" are the worst that "ever happened"—they only hamper a man who does know. To arrive at a satisfactory decision, it is absolutely necessary to satisfy yourself first, and then the probabilities are the bulk of reasonable exhibitors will be satisfied. We are all liable to have differences of opinion, and no judge is infallible anyhow!

I like to be in the ring when the horses come in, believing that first impressions are generally correct ones, and after marking off the numbers of those absent, keep them parading around me until I can by close comparison select the ones which, at that "stage of the game," look like the winners. Against these I make my private mark in the order I want them; then have them "lined up" to go over their conformation and see they are free from blemishes or objectionable points; after this I weed out those which are distinctly "out of it," and if I have any doubts in my own mind about the order in which those already selected should be placed, I have them paraded again, and after viewing them in front and behind, to see that their action is straight and true, I have them called in and the ribbons tied. I might mention, incidentally, that all horses should show their ability to "back" if required. In making awards close attention should be given to the way a horse is bitted and shod. I have seen many judges never get either in front of or behind a horse, and many faulty decisions are made in consequence. It makes no difference to me how handsome a horse is, or how high he can "go"—he must go straight to win, and "go" behind as well as before. I also think it very necessary to always keep in mind what the class calls for, or the use to which the animals before me have to be put, and govern my decisions accordingly.

There is at present a great call for a little "speed" in all heavy harness classes, and, other things being equal, I should always prefer a horse with it than without it, although I am no advocate of the "break-neck" style of driving all the time, but to be up-to-date you have got to have a certain amount of speed.

Another and very general cause of complaint is that a horse can win one day and the next be "turned down" in practically the same company. This is easily explained. A horse is not a machine, and one day he feels "good" and makes the best of himself, whereas on the next day he may be "clear off" and not make a "show" at all. Some men get awfully "sore" on this point, but they should ask themselves, "Do I always feel the same?" It is unpleasant to be beaten, especially by one that your horse has beaten the day before, but this will always happen as long as horse shows continue. Or, again, it may be a combination of circumstances; for instance, a case comes to my mind which occurred at one of the large Western shows last fall—it was in a class for a special prize for "gig horses." My choice was decidedly a certain gray mare, with good style, lots of action and substance, and everything that goes to make up an ideal "gig horse." My two colleagues preferred a bay gelding, owned by the scion of one of America's wealthiest families. I "hung out" for the gray as long as possible, but was finally obliged to submit (much against my will) to the ruling of the majority. Two nights afterwards the same two horses, amongst others, came in to compete in the open class for "gig horses." My colleagues approached me to see where I stood. I answered, "I am for the gray mare, and if she don't win I do no more judging at this show." She won!

Tell me where the advantage of having three judges comes in, in such a case? I proved to my own satisfaction before the end of the week that, although owner of a large stable of horses, one of my colleagues was totally impractical in a show-ring.

Close comparison and attention to details is essential in all cases. If you are judging draft horses, let them be drafty in character; if roadsters, smooth and of good style and action; if roadsters, speed is of paramount importance. Satisfy yourself that you are right, then go ahead and fear no one. There always will be kickers, although most unsportsmanlike, and if asked a judge can generally give reasons.

Horse shows have done more than anything else to show the people what is needed for certain uses, and breeders have tried to raise what is required, but there is still room for improvement, and ideals cannot be set too high. Horse shows have certainly helped breeders, and been a God-send to both them and to the dealer. Long may they continue.

R. P. STERICKER.
Orange Co., N. Y.

Light Horses.

THE STANDARD-BRED.

The Standard-bred—the American trotting or pacing horse—is purely of American production. The studbook, called the American Trotting Register, was originated by Mr. J. H. Wallace, and the first volume printed in 1868. Eligibility to registration consisted, not so much in purity of blood as in the ability of the animal or of his ancestors to trot or pace fast. There were and still are several rules under which an animal becomes eligible for registration. The standard rules for registration of trotters are somewhat as follows:

(1) The progeny of a Standard-bred stallion out of a Standard-bred mare.

(2) A stallion sired by a Standard-bred stallion, provided his dam and grandam were sired by Standard-breds, and he himself has a trotting record of 2.30 or better, and is the sire of three trotters with records of 2.30 or better out of different mares.

(3) A mare whose sire is Standard-bred, whose dam and grandam were sired by Standard-breds, provided she herself has a trotting record of 2.30 or better, or is the dam of one trotter with a record of 2.30 or better.

(4) A mare sired by a Standard-bred, provided she is the dam of two trotters with records of 2.30 or better.

(5) A mare sired by a Standard-bred, provided her first, second and third dams were each sired by a Standard-bred.

For the registration of pacers, the same rules apply, with the exception that the time limit is 2.25 instead of 2.30.

Hambletonian, to whom a very large percentage of the fastest trotters and pacers of the present day trace. Among the most noted sons of Rysdyk's Hambletonian were Alexander's Abdallah, Aberdeen, Dictator, Electioneer, George Wilkes, Happy Medium, Harold, Messenger, Sentinel and Volunteer. Mambrino Chief, another noted sire, was a grandson of Mambrino, his sire being Mambrino Paymaster. Andrew Jackson, the founder of the Clay family of trotters, was by Young Bashaw, son of Grand Bashaw, a Barb, imported from Trepole in 1820. Young Bashaw's dam was by First Consul, and his grandam was by Messenger.

Imp. Diomed and Imp. Bellfounder also had a favorable influence in the early record of trotters. The Morgans, a very old trotting family, are descended from Justin Morgan, bred in Vermont in 1793. The Pilots, from the old black pacing horse Pilot, of French-Canadian ancestry. He sired Pilot Jr., sire of Maud S. and Jay-Eye-See, two noted performers. The chief families of trotters are the Hambletonians, the Mambrino Chiefs, the Clays, the Morgans, the Bashaws and the Pilots.

The first recorded trotting performance in America was that of Yankee, at Harlem, New York, July 6th, 1806. The time recorded was 2.59, but it is said he did not go a full mile.

In August, 1810, a Boston horse trotted a mile in Philadelphia in 2.48½. In 1832 Burster trotted in 2.32, and in 1834 Edwin Forrest made a record of 2.31½. From that time to the present the records have been gradually reduced until, as before stated, a few have gone faster than two minutes. The class of horses known as roadsters

are the descendants of the Standard-bred, and in many cases are Standard-bred themselves.

CHARACTERISTICS.

The Standard-bred, being of composite breed, and having been bred for so many generations with the prime idea of producing speed, has not as yet acquired as definite a type as other breeds of horses. Extreme speed is seen in animals of all sizes, conformation, style and peculiarities of gait. Some Standard-breds, when docked, manes pulled, shod heavily and driven for action rather than speed, make high-class heavy harness horses. In the Standard-bred either the trotting or pacing gait is allowable, and the same may be said in regard to roadsters, but in the latter the trotting gait is



Oro Wilkes 30347.

Standard-bred stallion in stud of Cruickston Stock Farm, Galt, Ont.

The different gaits are not transmitted with certainty; a trotting stallion and a trotting mare may produce a pacer, and vice versa, hence an animal of either gait may be standard at birth under rule 1. These rules at first were not nearly so stringent, and have been changed many times, each change making it more difficult for an animal not Standard-bred by birth to become eligible for registration. Thus it is easily seen that speed is more necessary than breeding as regards eligibility for registration, but there are few, if any, cases in which an animal not well bred, on either sire or dam's side, has earned his eligibility to appear in the register or studbook. The horse under discussion has been bred for many generations with the main idea of producing extreme speed at the trotting or pacing gait, and this trait has been so highly developed that there are many who have records little slower than two minutes, and a few have gone a few seconds faster than that.

The foundation stock for the establishment of this breed, the horse that gave stamina, courage and will power, was the English Thoroughbred. The horse that played the most important part probably was Imp. Messenger, by Mambrino, out of a mare by Turf, out of Regulus, by Starling. He was a gray horse, foaled in 1780, and imported to Philadelphia in 1788. His sire Mambrino was by Engineer (a son of Sampson), out of a mare by Old Cade. The most famous son of Messenger was Mambrino (named after his grand-sire). He was bay, foaled in 1806, and was out of a daughter of Imp. Sauerkraut. Mambrino sired Abdallah, foaled in 1823, who sired Rysdyk's

generally much more favored.

The Standard-bred should be a stylish horse, of fair size, say from 15½ to 16½ hands. In conformation he is a medium, between the Thoroughbred and the Hackney. His action is usually only fairly high when going slow, but increases in height as he goes faster. His forward action should be straight, and while a wide or sprawling action behind is allowable, most fanciers prefer closer action. While for racing purposes boots of all kinds are allowable, the roadster must not require any. He should have speed, and if he can be safely speeded without requiring any parts of his feet or legs to be protected by boots, so much the better. Speed is necessary in a high-class Standard-bred, and the more style, quality and attractive action he has the better.

In the roadster extreme speed is not demanded, but he must have sufficient substance to perform the ordinary functions of a road horse, and have at least reasonable speed. While we say extreme speed is not demanded, the more he has the more valuable he is, provided he has the size, conformation, style and attractive appearance the class demands.

"WHIP."

Summer and fall are the seasons when the weeds are plainly seen—the mustard, the wheel-of-fortune, the thistle, the crooked race-starter, the bookmakers and the wild oats.

LIVE STOCK.

Judging Sheep.

The following instructions as to the method and manner of judging sheep in the show-ring are copied from Professor John A. Craig's excellent book, entitled "Live-stock Judging." As they are founded on an extended experience and careful observation, they will appeal to the student of this class of work, and may be safely accepted as sound in principle:

METHOD OF EXAMINING SHEEP.—In examining sheep it is advisable to adopt a definite course of procedure, so that nothing may be overlooked and each motion made to disclose something in regard to the merit or demerit of the sheep. In the show-ring that contains as many as ten sheep in a class, it is easy to see that the judge must work quickly as well as accurately; and there is nothing that will contribute to both of these like examining each part of the sheep in regular order. The best course to follow is, perhaps, to begin at the head, pressing down the lower lip with the finger and thumb, so that the teeth may be seen and the age estimated; then, with the hands under the jaw, look carefully over the head, seeing that the eyes are all right, the head a good shape, and no appearance of horns in those breeds that are hornless; while in those that possess these, note that they spring clear from the head. Then pass to the neck, feeling with the hands the fullness of it, and, in addition, observing the length and the way it swells to meet the shoulder at the shoulder vein. Pass down to the brisket, putting one hand on the floor of the chest and the other at the top of the shoulder, and in this way form an idea as to the depth of the sheep through these parts. Next note the shoulder, observing how it is covered with flesh along the side and top, and also taking the girth of the spring of the ribs with the sheep. From the top of the shoulder, using one hand, follow the line of the back to the end of the body. By carefully handling these parts the fleshiness of the sheep, or the way the ribs are covered, and the straightness of the back, are determined, and at the same time the spring of the ribs is made apparent. The width of the loin should then be taken, and also its covering and thickness. The width of the hips should next be observed, and, turning to one side and using two hands, the length from the hip to the end of the hind quarter should be made apparent between the two points. Then the width of the hind quarter and the manner in which it is carried back and the fullness should also be examined. Following the joint towards the leg the development of the thigh on the outside requires examination, and then with the hand the quarters should be firmly felt.

DECEPTION DUE TO TRIMMING.—In this way the sheep has been thoroughly examined as to form, but it is to be remembered that the hands should be thoroughly relied on to discover all defects of form, and unless the sheep is carefully handled the examiner is very likely to be deceived. The wool of all show sheep and fat stock of the medium wool classes is always trimmed, and the trimmer possessing skill can give any desired form to sheep, providing the wool is long enough and the sheep approaches somewhat towards the form which is being imitated.

ESTIMATING AGE BY THE TEETH.—The order of appearance of the nippers or incisors in sheep is a fairly reliable method of telling their age. The sheep has eight permanent incisors, and these appear in regular order in supplanting the milk teeth. The milk teeth can always be told from the permanent incisors, by the fact that they are narrower. The permanent incisors are broad and wide, and widened considerably towards the top. The first or central pair of incisors appear when the sheep is slightly over one year old. The next pair—that is, one on each side of the central pair—appear the following year, and that is when the sheep is two years old; the third pair appear when the sheep is slightly over two years old, and the fourth pair when it is between four and five years old. This completes the number of incisors, and a complete set always indicates that the sheep is between four and five years old. High feeding or forcing hastens the age indications, so that the variations are often unnoticeable, especially in show sheep or those imported from Great Britain.

JUDGING SHEEP FOR MUTTON AND WOOL.

In judging fat sheep it is necessary to consider the needs of the feeder of this class of stock, the demands of the butcher for lambs and mutton, the desires of the consumer and the requirements of the manufacturer of wool. These requisites must be merged together to arrive at a correct view of the whole.

THE FEEDING TYPE THAT GIVES THE BEST GAINS.—In considering the type of sheep which gives the best results in the feed lot, we have only to have in view the type that gives us the greatest vigor, insuring an active digestion

and the most constitution, so that nothing may upset the sheep in the rapid progress desired. In this connection it will be well to report the results of an experiment made at the Wisconsin Experiment Station by the writer. Two lots of lambs were selected; the one bred by the station showing in fleece and form a high degree of merit for grade sheep. These lambs were bred from high-grade ewes, and the rams had been selected at high prices for some years to make the best blend with the ewes. The lambs were very uniform as to type, and they showed what might be called an unusual degree of merit for ordinary feeding lambs. To compare with these, some lambs native to northern Wisconsin, showing the type common to that territory, were put upon similar rations. The representatives of both these kinds of lambs, in addition to having the same kind of food, were kept under identically the same conditions, putting both lots of lambs in the fed lot at three cents a pound, and taking them out at four cents at the end of the feeding period. The well-bred lambs, of good feeding type, after paying for the feed that they ate, at current prices, yielded a profit of \$1.13 per head; while those representative of the poor type being indiscriminately bred only yielded a profit of 60 cents per head. The lambs of the best type ate more food, but they made more than a corresponding gain, and the chief point should not be lost sight of, that the profit from each one of them was just twice as much as that from those being of inferior type.

THE FEEDING TYPE BRINGING MOST AT MATURITY.—In the selection of feeding lambs the feeder has to keep in view the fact that there is

the highest value per pound, as that is quoted at ten cents. The breast and chest have the very low value of two cents per pound. It is very evident from these facts that the back, loin and the leg are the three divisions that are most prized in the lambs that would be ideal from the butcher's standpoint.

QUALITY.—After the form of the sheep has been carefully examined the quality should be noticed. This means the cleanness of the bone, fineness of the skin and the nature of the hair which covers the face and legs. These are important features in either breeding or fat sheep. It is, perhaps, the most valuable from the butcher's standpoint, because the waste is less from a sheep of good quality than it is from one that is inferior. The range in the percentage of dressed weight in lambs will vary from 50 per cent. to 60 per cent. of their live weight, so that it will be understood that quality is an important factor from the butcher's standpoint, where the profit from the carcass is largely determined by the dressed-weight returns.

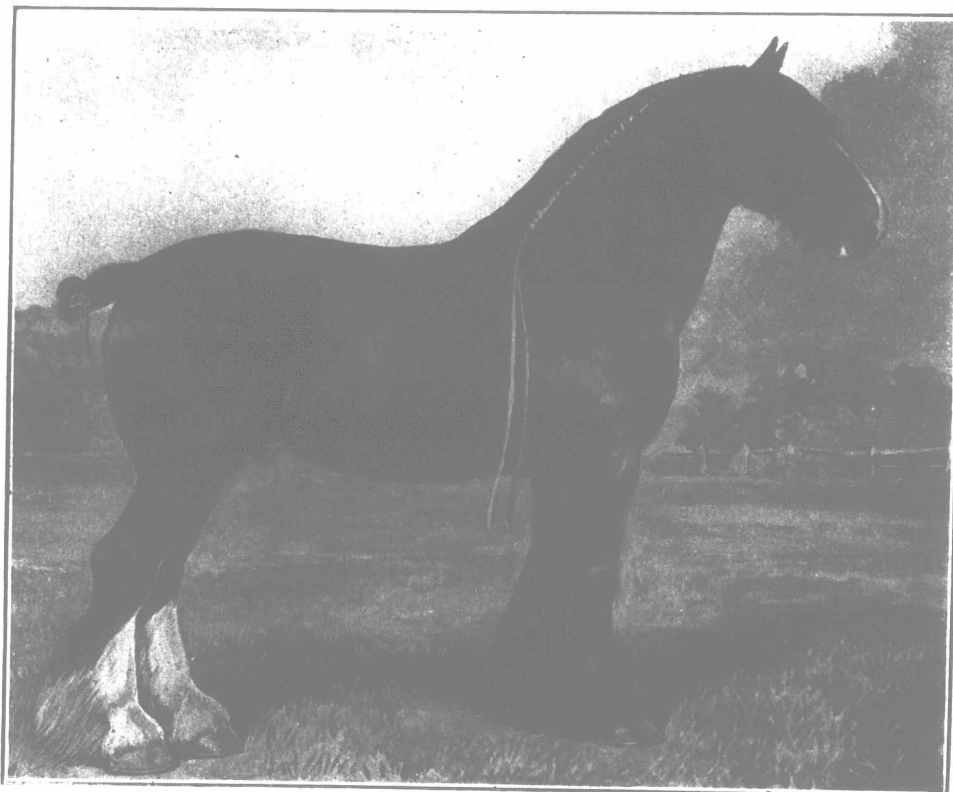
THE QUALITIES OF THE FLEECE.—In estimating the worth of a sheep or judging it, not only is it fair to consider the demands of the feeder, the butcher and the consumer, but with these we must include the qualities desired by the wool manufacturer. Though the returns from the fleece are not very large, yet the sheep-breeder must consider them so that the ultimate profit may be as great as possible. To arrive at a correct understanding in regard to this, the examiner must follow the best method of examination, and also know in detail the market requirements for wool.

EXAMINING THE FLEECE.—In examining and valuing the fleece, the chief points to consider are the quantity, quality, and the condition. In grouping the qualities under these three divisions, we can include the interests of those directly concerned on the various products coming from sheep on the market. The best method of arriving at the nature of a fleece is to open it first just over the shoulder. It is in this region that the finest and the soundest wool of the fleece is found. By using the hands in a flat position, instead of sticking the end of the fingers into the wool, the fleece may be parted in a more satisfactory manner. After looking at the wool and skin in this region, the thigh should be the next place of examination.

for here grows the poorest and coarsest wool of the whole fleece. Then the covering of the wool on the belly also demands notice, for very often sheep are quite poor in this region, making the wool light and indicating a lack of constitution. By examining the fleece in these three parts a fair estimate may be made of its qualities.

QUANTITY OF FLEECE.—The chief factors which determine the quantity are the length, density and evenness of both of these over all parts.

DENSITY.—The density of the fleece means the closeness of the fibers. Technically it means the number of fibers that grow on a square inch. Density is not only of value to secure a heavy fleece, but from a breeder's point of view its chief importance lies in the fact that it is more protection to the sheep than a fleece that is open. Not only is a sheep with a loose, open fleece more liable to contract a cold from exposure to rain or wind, but it is also more apt to yield a dirty fleece, as the loose fleece catches the dirt and dust and pieces of hay and straw. From the shepherd's point of view, the denseness of the fleece is its leading feature, for it will be found that those animals with dense, close fleeces are less subject to such diseases as catarrh, running at the nose, or scouring. When a sheep experiences a chill, it at once affects the circulation and sends the blood to the internal organs, and inflammation or scouring results. This is why sheep that have open fleeces are more subject to such diseases than those that have dense fleeces. Wool is one of the best non-conductors of heat that we have, and when it is on a sheep, in the form of a dense



Roxwell Saxon Harold (22732).

Shire stallion in stud of Messrs John Chambers & Sons, Holdenby, Northampton, England. (See Gossip.)

most demand for the lamb that when fat weighs about 100 pounds. Such a lamb has the quickest sale at the highest price per pound. This type is one that is not too heavy boned and large framed, but such as require only a medium amount of flesh to make the carcass smooth and plump at the weight indicated. It is the low-set, thick type that possesses these qualities to the highest degree. To secure the greatest profit in feeding, it is desirable to have the gain made as rapidly as possible. The younger the animal the cheaper the cost of gain, and it is that feature that makes early maturity such an important consideration in the different classes of stock. The market favors a lamb of the weight mentioned, because, as a rule, such usually dress better and the cuts are smaller.

THE TYPE DESIRED BY THE BUTCHER.—If we were to consider only the things that have the most importance in the view of the butcher we would have a very queerly-formed sheep presented to us. The butcher is very desirous of obtaining the greatest percentage of valuable cuts, consequently the different parts of a lamb from a butcher's point of view show a wide variation from the feeder's and breeder's ideal. In the lamb that is ideal from a butcher's standpoint, it would not be necessary to have any neck, chest, or digestive apparatus. The neck has a comparative value of only one cent per pound, the shoulder is two cents and the shanks the same. The rib running from the point of the shoulder to the loin has a value of nine cents per pound, and the same is true of the loin, while the leg of mutton has

fleece, it gives them the greatest possible protection from exposure. Furthermore, if the fleece is not dense, it is almost impossible for the fiber to be sound—that is, free from weak spots. When a sheep has been badly chilled, or has become sick in any way, so as to cause the pores of the skin to contract, a break or shrinkage occurs in the fiber at that point. The wool on a sheep grows from a small sac in the skin, and it passes away from the skin through a small opening which may be easily contracted or expanded, according to different influences. The influences are various, and for that reason it is important that the sheep be covered with a fleece that is so dense, as not to be affected much by external conditions.

Sheep Notes.

By Shepherd.

Size is of but little advantage, unless accompanied by quality.

Heavy sheep are sometimes leggy and coarse, and not nearly as desirable as lighter sheep.

It is not the number of pounds that you put on that makes the profit; it is the flesh they are in that makes them sell well in the market.

If the raising of early lambs for market is to be undertaken at all, plan to raise good ones.

In undertaking to raise early lambs for market, the ewes must be of good, healthy stock, fair size, and in good condition. Ewes bred first week in October should have lambs last week in February. If bred first week in September, they should produce last week in January, or 21 weeks after service. The average farmer will better have his lambs come in April.

Putting a fine lot of fleeces on the market once a year is by no means incompatible with, at the same time, having a prime lot of mutton ready to help out the income.

In raising early lambs, select at the earliest possible date the kind and number of ewes needed, and purchase in good season the right kind of ram to mate with them.

The same sheep will vary from year to year in the amount of oil secretion, and they are liable to vary, not only by a change of weather, but by a change of food as well.

In weaning the lambs, they will worry less if left in the fields they are accustomed to and the ewes removed, rather than to change the pastures of the lambs.

The sheep, of whatever breed, whether we will it or not, is a general-purpose animal. It furnishes both food and raiment to wear.

Valuable lambs will always pay for the best possible feeding and attention, and it is of the utmost importance that every detail be thoughtfully understood and attended to.

As a gleaner of small crops, a saver of little wastes, the sheep is as necessary to the farm as the cow or hog.

Now is the time to arrange for lambs next spring, because you must select good strong breeding ewes to carry and feed them through fall and winter. It is none too soon to decide the kind of a ram you will use as a sire.

The principle of selection, "that it enables the breeder not only to modify the character of his flock, but to change it altogether, if desired."

A weakened constitution predisposes to disease of any kind, but there is no evidence that docking affects sheep in that way.

Clean, dry pastures, pure water, wholesome feed and intelligent, individual attention to the wants of the flock are the first requisites for successful flock management.

Sheep, grain-fed and well protected from the rigorous wintry storms, will furnish wool of much stronger fiber, making a more durable fabric than wool clipped from sheep with less care.

The Sheep Market Outlook.

With the present high prices for mutton, and the equally high prices for wool, there is one branch of the sheep industry that is not receiving its share of prosperity. We refer to the prices now being paid for pure-bred rams, and the prices at which they were sold last year. Good wool and good mutton cannot be grown without good rams, and under the present conditions breeders of registered bucks would be justified in asking much higher prices than they are now receiving for their sheep. The care and expense connected with the breeding and feeding of good rams is much greater than that necessary in producing ordinary ewes, and yet they sell for little more than price of the ewe. Sheep men who propose to purchase rams this year should be prepared to pay prices in proportion to those they are receiving for their wool and mutton. The present condition of the U. S. mutton and lamb markets can only be described as very encouraging to sheep owners, and both sheep salesmen and commission houses predict high prices for lambs, and grass-fattened sheep from the range this summer. The disposition to hold back the ewe lambs and as many of the ewe flock as possible will tend to keep down receipts, while the demand for feeding sheep will soon begin to cut into the packers' supply, which is now very limited. The recent packing-house investigations, which have seriously hurt the beef and pork products, have operated to the benefit of the mutton and lamb market.—(Shepherd's Bulletin.

Nova Scotia's Possibilities for Sheep Husbandry.

Editor "The Farmer's Advocate":

In view of the fact that so much has been said and written about the Western Provinces as a profitable field for investment, will you allow me some space in your widely-read journal to press the claims of the Maritime Provinces, not only for those who are seeking an outlet for their surplus capital, but also for those of small means, with strong arms and clear brains, who, with a small expenditure of money, can in a very short time make for themselves comfortable homes amid all the modern conveniences that will take nearly a lifetime to come within the reach of those who invest in a prairie home in the far West. I do not intend in this letter to touch upon all the opportunities and possibilities that are available in those provinces by the sea, but I would like to impress your readers with the splendid advantages that are here for those who are interested in sheep-raising—advantages that are not excelled in any part of the world. The climate presents neither extreme of heat or cold. The winters, though somewhat long, owing to our peninsular position, are never very cold. There are no blizzards or cyclones; the summers are delightful; the hills and valleys afford pasturage so good that at two months old lambs will dress from 40 to 50 lbs. of the very best quality of mutton; flocks have not to wander for miles in search of water, for there are living springs and running water in nearly every pasture, certainly at least on every farm. There are no long hauls and excessive railway rates to get our lambs to market, for a good market is all around us, a market that is a long way short of being supplied.

The sheep industry has steadily improved during the

participated, and while the men who attended would, no doubt, like to see the number of sheep multiply, it is not for the sake of keeping up the prices, but rather the reverse. The sheep industry in Nova Scotia is standing on its own legs, and for the reason named, viz., increased demand, short supply, and the supply will likely be short for years to come, and it is up to the farmers who are raising sheep to raise more sheep, and better sheep. There is great room for improvement. Nature has done much for us; the Government is doing much. We have a country free from the diseases that affect the flocks in other places. Scab and stomach worms are unknown. We can raise the feed in abundance that makes the best quality of mutton at the lowest cost. Clover, when given any kind of a chance, does finely where conditions are right. Two and a half to three tons to the acre may be obtained. In turnips we can beat the world—at least, that part of the world known as America. Oats, vetches and rape do well, and in feeds what more do we want? All these are within the reach of the average farmer. It is not to be inferred, from anything written in this letter, that we believe that sheep-raising could be gone into on anything like the large scale they do on the great Western plains, but we certainly do think there should be a flock of 40 or 50 breeding ewes on every farm in the Maritime Provinces, where it is possible to keep sheep at all; that, with the ordinary care and attention exercised in the other affairs of farm life, such a flock would pay a higher dividend than any other live stock, and with less work to the owner. We hear a good deal nowadays of the scarcity of farm help. Does not the sheep industry solve that problem to some extent, and can we not, with the lighter work and increased profits, keep our boys on the farm, and induce

those who have already left to return, until every vacant farm will be occupied by a happy, contented people, engaged in a lucrative business? Now, as we have tried to show, we have the climate, the hills and valleys, the best of water, we can raise the best sheep fodder, and the markets are practically unlimited; let us now choose the breed, or breeds, best suited to our environments and success will follow.

Other things being equal, the Blackfaces, or Down breeds, seem to furnish the best combination of wool and mutton. Of these, the Shropshire easily leads in point of numbers and in popularity. The Oxford are a good second, and are preferred in some quarters for their larger size, but these qualities are offset by the earlier-maturing qualities of the Shropshire. The Hampshires are comparatively a new breed here, and when

the pasture is abundant and winter fodder plentiful, give very good returns. The Southdown and Cheviots also have their admirers, and do exceedingly well, and a half-bred Southdown lamb is in great favor with the butcher. Leicesters and Lincolns among the long-wools have been tried, with the advantage in favor of the latter; although, in fact, neither are in great demand as breeders. This is probably owing to the fact that woolen dealers discriminate as much as two cents per pound in favor of medium or Down wool, and also that they are more liable to catch colds during stormy weather than the thick-wooled breeds. As far as breeds are concerned, however, all do fairly well, but on rough, hilly land, where sheep have to rustle, the lighter-weight breeds should be chosen, such as Shropshire, Southdown and Cheviot; while on the richer pastures of the valleys, the Oxfords, Hampshires and Lincolns would, possibly, give better returns, but as this is a matter of choice, the breeder could not make a very great mistake in choosing what he liked best. Having trespassed already so much space, without exhausting the subject, I will come again if this proves of any interest to your readers.

ANDREW McPHERSON.

Flies, heat and short commons reduce flesh more easily and quickly than good feed and liberal care can possibly restore it. Every year thousands of tons of meat, put on animal frames at heavy expenditure of feed and time, are thus sacrificed in this country by mismanagement. The feeder who does not provide plenty of pure water, shade, fly protection and green feed when pastures are short, has no right to expect to make money out of stock.



Holdenby Daisy (48222).

Shire mare, owned by Messrs. John Chambers & Sons, Holdenby, Northampton, England. Foal by Northgate Prince (15762).

last ten years, and the boom is perfectly legitimate. The increased activity in mining and manufacturing circles; the great inrush of people to the cities and towns, where the demand for labor is so brisk, and wages so high, afforded a chance for so many farmers to go into dairying that they sold out their sheep, and turned their whole attention to the work of the dairy, thus lessening the number of sheep. The increased consumption of mutton by our people is an evidence that the boom is not to be short-lived. In conversing with a leading butcher in the city of Sydney lately, he told me that he could sell ten pounds of lamb or mutton now for one he could sell five or six years ago, and as he bought all his meat, he has had to pay 15 cents per pound wholesale for lamb this summer. Is not that a paying proposition for the shepherd who raises the lambs, and can get 30 cents per pound for wool? I am quite well aware that these high prices are attributed by some men to the persistent advertising of the breeders of pure-bred stock, in order to boom the sale of breeding stock; others, again, think it is the result of the efforts of a convention held in the city of Halifax early in the spring. None of these contentions are right, however, for, as to the first, no doubt the breeders of pure-bred stock are alive to their opportunities, and have faith in the industry; still, comparing the prices of pure-bred stock here with those obtained in Ontario, we can see that their part of the business is the least remunerative of any, and cannot be compared with that of the man who handles an up-to-date grade flock for its wool and mutton. As to the part played by the convention in bringing about the satisfactory state of the sheep industry, the less said the better. As far as known, not a single farmer

Lice on Hogs.

It is a fact well known to many hog-breeders that the presence of insects on hogs is not a matter to be ignored. It is not, however, generally understood that few hogs are free from lice. If this were more generally recognized, more attention would be given to keeping the hogs free. The thick skin of the hog makes his owner think that it is a complete protection against parasites. This is not the case, for the skin, though thick, is soft enough to be easily penetrated by the sucking instruments of the insects that live on the hog.

The lice naturally go to those parts of the hogs that give them the best protection from the hog as he tries to get rid of them. They gather back of the ears, along the back where the bristles are long and heavy, and under the breast. These parasites are blood-suckers, and the amount of blood they can take out of a hog is surprising. Very often there are many hundreds of them on a single hog. It does not take them long to produce a weak, debilitated condition of the animal, making him not only unprofitable, but bringing him down to a condition where he is susceptible to other diseases.

Fortunately, hog lice are large in size, and can be detected on the hog before they have become very numerous. If they are taken in time it is easy to exterminate them, but too often they are allowed to remain undisturbed, when they multiply. So far as we know hog lice do not cause the death of the animals, but they reduce their thrift and also help along any disease that comes. Many a hog that would be able to resist disease, is unable to resist both that disease and lice.

Professor A. T. Peters, State Veterinarian of Nebraska, says that he has found that where animals affected with cholera were free from lice there was much smaller percentage of loss sustained than where the herds were largely affected with lice. This observation was impressed upon him during a period of five years, when he was examining the herds of the State. He says that his first rule, where there is an outbreak of cholera, is to hunt for lice, and if they are found have them thoroughly destroyed before proceeding to other measures.

It has been suggested before that all of the contagious diseases among live stock may be spread largely by lice. We do not know it, but it is reasonable to suppose that the lice pass quite freely from one animal to another, and that they suck infected blood from one and do not always insert clean sucking instruments into the bodies of healthy hogs. We believe that war should be waged on lice till all are exterminated.

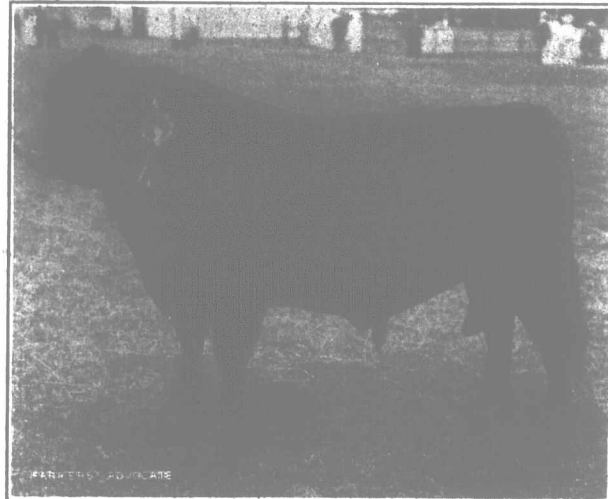
This preachment, by the Farmers' Review, of Chicago, should arrest the attention of all who keep hogs in any number, and should lead them to examine their stock for this pest. Hog lice are not difficult to destroy or get rid of, as spraying or washing with any of the sheep dips will quickly do the work, or the application of any kind of oil or grease will kill them. Perhaps the surest and simplest cure is a mixture of coal oil and lard, or other oil, as coal oil alone is apt to blister the skin. The application should be repeated, as the nits will develop into life.

"Pigs is Pigs."

In the best sense of the axiom the above heading, which is the unique title of the latest humorous production in book form, is at the present time a truism, as applied to the market for live pigs, with prices hovering around the eight dollars a hundredweight mark, and more wanted at these figures than are available. If there ever was a time when farmers found no excuse for grumbling about market prices for hogs it is surely now. If there was even a remote possibility of profit in raising hogs in the past, as was the case, within the memory of the writer, when they were generally kept till twelve to eighteen months old before being fattened, and were finished on peas worth nearly a dollar a bushel, the market for the product open for only about four of the winter months, the price seldom up to eight dollars a hundred dressed weight, and often down to less than one-half that figure, there surely must be good money in selling at present prices, pigs six to eight months old that have been mainly raised upon pasture and by-products of the dairy which would otherwise go to waste. It is, we believe, proverbial in some countries, though, perhaps, not in Canada, that farmers as a class are not happy unless they have something to complain of, a statement which reminds us of the English tenant whose crops were so good that when questioned as to whether he had any "kick coming" in that regard, replied, "Such heavy crops were very hard on the land." If Canadians have a complaint regarding the hog market of the present time, we presume it is that they have not enough porkers to part with in order to reap to a satisfactory extent the benefit from the booming prices that are going; and, if in a complaining mood, they probably lay the blame on the buyers, the perverse packers, for "bearing" the market last year by bringing in hogs from the "States,"

where they could buy them cheaper than here, though not of as good a class as ours. Whether the ground for the grumble was well founded or not, there is nothing to be gained now by reflection or recrimination on that score, and the question of interest for the future is how best to prepare to benefit from present and prospective market prices. We are not informed as to the probable number of early autumn litters to be counted on, and to be prepared for the spring market, but we should hope that many have provided for that contingency by breeding to have a good share of pigs farrowed early in September, as later litters are apt to become stunted in winter, and prove unprofitable feeders.

Pigs born early in the fall, if given liberty to run out on grass, grow strong in their limbs and lungs, laying a good foundation of healthy muscle, which goes a long way towards carrying them successfully through the often enforced confinement of the winter months, while later litters often prove unprofitable, becoming crippled from confinement, or a lack of balance in the food supplied, causing indigestion and attendant ills. And right here is room for study and experimentation, in order to arriving at a more satisfactory conclusion as to the best method of winter feeding, with a view to avoiding those checks in the growth of pigs so often experienced in that season in this country. The question of "dry-mash" feeding of poultry in winter is being freely discussed, and is seemingly growing in favor, and it may be worth considering whether the too free feeding of sloppy rations to pigs in cold weather is not largely responsible for the unthrifty condition found among so many lots of pigs during the winter months. Food swallowed in a sloppy form, without mastication, is unmixed with saliva from the glands of the mouth, which serves to make the food more fitted for digestion, and, if fed cold, it must have an injurious effect on the circulation of the blood, tending to indigestion and general debility. It would appear to be worth while to try the experiment of feeding the grains or meals dry, or, at least, mixed with pulped roots or ensilage, with the addition of chaffed clover, supplying



Chancellor of Balyboly.

Three-year-old Galloway bull. First and champion at the Royal Show, 1906.

liquids in a separate trough to be taken at will, and in such quantity as the demands of nature call for. This system of feeding we know has been successfully adopted by some feeders; some of the most thrifty winter-fed hogs we have ever seen were fed by this method, and the wonder is that it has not been more generally tried. The pig is too important a factor in the farmer's operations nowadays to be neglected, and every point in his breeding and management should be studied, in order to bringing out the best that is in him financially.

Recommended for Calf Scours.

Editor "The Farmer's Advocate":

Having seen an inquiry for cure of scours or diarrhoea in calves, I send you the following cure, which I have never known to fail, I care not in what stage the disease may be: Take from one to two tablespoonfuls of spirits of turpentine, one-half cup raw linseed oil, and one egg, and put it in a bottle, with a pint of new milk. Shake so as to mix; give to the calf from the bottle (the milk should be quite warm); afterwards feed sparingly a pint of new milk twice a day for two days; then increase the quantity of milk to a quart twice a day for a week. One dose is generally sufficient to effect a cure. The cause of scours is over-feeding—that is, giving too much milk at a time—or calves being kept where water drips on them from leaky roofs, or mixing chopped feed along with the milk. The best way I have found to feed the latter is to throw a handful of chop in the pail just as the calf is about finished drinking; they soon learn to eat it dry.

Crossfield, Alta.

CHAS. GRANLEY.

THE FARM.

Preparation for Wheat Sowing.

There are large areas in Ontario in which fall wheat can be successfully grown with comparatively little expense in the preparation of the land. Crops of this cereal have been harvested this year which are reported as averaging thirty bushels per acre, and some as high as forty bushels, which is a considerably better yield than the new lands of the boasted West can show in the most favorable of seasons; and the expense of preparation of the seed-bed here need not be greater than in the newer provinces. A clover sod plowed once in July or August, rolled immediately after plowing, and well harrowed, makes an ideal preparation, and the sowing should, as a rule, be not later than the first week in September, unless the Hessian fly has been working in the neighborhood, in which case it is well to continue surface cultivation, especially after each rain, to conserve moisture, and delay the sowing a week or two longer. A pea field or barley stubble, provided the land is in good heart, or a corn field after the crop has been siloed, may, in some cases, be prepared in time to be sown to wheat, especially if the season in respect to rainfall is favorable. Pea or corn stubble may not require plowing at all, but by disking or cultivating may be prepared in good condition for seeding early in September, and with good prospects for a successful crop. The success of wheat-growing depends very largely upon the proper preparation of the seed-bed, which should be fine, firm and moist, so as to encourage rapid and vigorous growth, giving the roots a strong hold on the ground, and the top sufficient bulk to afford some protection from the frost of winter, and hold the snow as a covering, though there may be danger of the top growth becoming excessive in the case of early sowing in a moist season, causing smothering of the plants when covered with snow. In this, as in most cropping, the farmer must use his judgment and act in accordance with the circumstances and the weather conditions. No cast-iron rule can be laid down or followed successfully in all seasons, or under varying conditions, but in a general way, and in average cases, the course indicated in this article may be safely adopted with fair prospects for success in fall-wheat growing, which may be profitably prosecuted to a limited extent in many districts of Ontario, and some of the more eastern provinces.

The Gasoline Engine for Farm Use.

The modern farmer of to-day, who is abreast of the times, realizes that in order to carry on his daily routine work, such as exists on every up-to-date farm, it is necessary to have power; and as he has read and studied the different classes of power, he is forcibly impressed with the advantages of the farm engines as a means for assisting with the work on the farm. Perhaps the class of power which is best suited for farm use is the gasoline or kerosene engine; or, perhaps at no far distant date, an engine burning alcohol.

Some of the kerosene engines now being manufactured will, without any alteration, also burn alcohol. This puts the manufacturing of fuel almost in the hands of the farmer, as cheap alcohol is made from potatoes, sugar beets, as well as cereals; in fact, potatoes produce a greater amount of alcohol per bushel than any of the other farm products, and since the passing of the free alcohol bill, alcohol can be made and sold at approximately 10 cents per gallon; and as the farmer produces the products from which alcohol is made, there is no reason why he could not make his own fuel, should the day ever come when gasoline or kerosene was too high for power purposes.

The amount of power necessary for the farm depends entirely upon the purpose for which it is to be used. There are thousands of farms to-day which are using from 2 to 6 h.-p. Power of this size would be used for pumping water, the grinding of feed for the stock, sawing wood, running cream separators, and the like; in fact, doing all the work that was previously done by hand, and up to the capacity of 4 to 5 h.-p. sweep. They, again, there are farms which require a much larger amount of power, wishing to run a baling press, ensilage cutter, separator, large corn sheller and feed mill—the sizes ranging from 8 to 32 h.-p.

Either stationary, semi-portable or portable engines may be purchased, according to the use to be made of them. Many modern farms of to-day have a portion of the barn or granary equipped with an engine, belted to a line shaft, and from this shaft numerous machines are operated. Creameries are also fitted up with a gasoline engine, belted to a line shaft, from which is driven cream separators, churns, washing machines, pumps, butter workers, etc.—all of which can be operated at the same time at a very small cost, probably not to exceed $\frac{1}{4}$ of a gallon of gasoline per hour per h.-p.

The life of a gasoline engine is about four

times that of a steam engine, and the first cost is but a trifle more; and when one stops to consider that no attendant is required after the engine is started, it will be realized at once that the cost of power is very much less than for steam power, even though wood could be obtained and used for fuel at no expense, as it would require a man to fire it at least, and a man's time would be worth more than the cost of fuel to run a 10 h.-p. engine all day under full load.

With a gasoline engine there is not a possible chance for fire—nothing to blow sparks into a nearby stack, and thereby burn down an expensive barn or house. The farmers are appreciating this more and more each day. Where there were formerly only a few portable engines used for threshing in the field, there are to-day, perhaps, more gasoline engines used than steam, on account of their safety. We frequently hear of a steam plant blowing up, and the engineer and a number of innocent bystanders being blown to pieces—with a gasoline engine an explosion is absolutely impossible.

On a smaller plant, where they are not used continuously, they have the great advantage over steam or any other power, of being able to be started immediately, and give out full power, and when they are ready to be shut down all expense ceases immediately as soon as the valve is closed. There is no water or coal to be cared for, and a five-gallon can of gasoline will run a moderate size engine for a period of from 10 to 20 hours. Therefore, the item of fuel for gasoline engine is so small, and can be transported so easily by hand or by buggy, that it is not worth mentioning; while, on the other hand, for a steam engine it would require a team, wagon and man to haul fuel and water, and all of this would be charged up to the item of expense.—[J. A. Charter, in Jersey Bulletin.]

Encourage the Increase of Bumblebees.

Editor "The Farmer's Advocate":

An important reason why our red clover is often disappointing in the yield of seed is the lack of fertilization of the flowers. Entomologists tell us that the bumblebee is the only insect that fertilizes the red clover, and without fertilization there can be no seed. Lack of bumblebees appears to me to be the greatest cause of failure of any that we have in the production of red clover seed. And why is it so? Notwithstanding their weapon of defence (and who has not felt the sharpness of it?) their enemies have prevailed against them. There is not now one bumble for twenty there were thirty years ago—mice or boys have played havoc with them. Who is there who cannot remember how, when a boy, he used to go hunting bees' nests; how he used to kick old logs and stumps, and listen to hear the buzz of bees—if any were there—and how, if the sound were heard, the log was torn to pieces and the battle raged? Straw hats were dilapidated, and sometimes boys' faces too bore marks of the conflict. It was fun for the boys, but death to the bees. It is not indulged in to the same extent to-day; one reason being that there are no old stumps in which the bees can nest. The wire fences afford poor shelter for the bees, so they are fast becoming extinct, and we suffer the penalty of poor crops of clover seed.

New Zealand had to import bumblebees before they could get clover seed at all. Mr. C. W. Nash, of Toronto, tells us he had an order this year from New Zealand for Canadian bumblebees, as they think they are more active than those they have from Europe. Now, Mr. Editor, are we to make no effort to restore former conditions? We cannot replace old stumps, logs, etc., but we may provide other shelters for these invaluable helpers of ours. We notice their fondness for nesting in wool. Everyone knows that if a bundle of wool is left any time in any of our outbuildings, it is soon inhabited by bumblebees. An old buffalo robe, laid away for a time, is often found to contain a nest of bees, and if we were to put boxes in out-of-the-way places—about our buildings or about our fields—in which were put a few ounces of wool, and so fixed that they were protected from wet and field mice, we would be doing something towards increasing the number of bumblebees. Many keep the honeybee at considerable cost, and with profit, too; yet a good colony of bumblebees on a farm on which red clover seed is grown may be ten times more profitable than a colony of honeybees, and the cost of affording them a home a mere trifle.

Your valuable paper may do great work in teaching the people the necessity and value of putting forth some effort to afford them the protection necessary. School teachers should be informed of their great value, that they might instruct the school children; and if each and all do something to help protect in place of destroy bumblebees, it will add largely to the country's wealth. W. S. FRASER.

North York, Ont.

What Variety of Wheat to Sow.

A subject that will never be exhausted is varieties of farm crops. At this season, when a considerable acreage is about to be put under the drill for fall wheat seeding, we probably cannot do better than give the results of the variety tests at the Experimental Department of the Ontario Agricultural College, Guelph. We quote as follows from Prof. Zavitz's 1905 annual report:

According to most authorities, there are in all seven types of wheat, and to one or the other of these types, or species, all varieties belong. The seven types of wheat are as follows:

- (1) Common, fine, or soft wheat (*Triticum vulgare*).
- (2) Turgid, or toulard wheat (*T. turgidum*).
- (3) Hard, or flinty wheat (*T. durum*).
- (4) Polish wheat (*T. polanicum*).
- (5) Spelt (*T. spelta*).
- (6) Emmer, or starch wheat (*T. dicoccum*).
- (7) One-grained wheat (*T. monococcum*).

Nearly all of the varieties of spring and winter wheat which are grown in Ontario belong to the common wheat (*Triticum vulgare*). Some of the best-known representatives of other types are as follows: Wild goose spring wheat, Medeah spring wheat, Algiers spring wheat, Polish spring wheat, Miracle winter wheat, etc. Practically nothing is known throughout the Province regarding either the turgid or the one-grained wheats, as they have never been under general cultivation.

WINTER WHEAT FOR FLOUR PRODUCTION.—Two hundred and forty-five varieties of winter wheat have been grown at the Agricultural College within the past sixteen years. Of this number, about two hundred have been tested in each of five seasons, and fifteen in each of ten seasons. All varieties of winter wheat are tested for a period of five years, after which the inferior kinds are dropped and the most promising sorts are continued in future tests. The following table gives the average of ten years' results of each of fifteen varieties regarding the color and the weight per measured bushel of the wheat, and the yield per acre of both the straw and the grain:

VARIETIES.	Color of grain.	Lbs. per bushel (9 years).	Tons of straw (10 years).	Bush. per acre (10 years).
Dawson's Golden Chaff.....	White	59.7	3.6	57.3
Imperial Amber	Red	60.2	4.0	54.3
Early Genesee Giant.....	White	59.5	3.7	52.8
Russian Amber.....	Red	60.6	3.8	51.8
Early Red Clawson.....	Red	58.7	3.5	51.6
Egyptian Amber.....	Red	61.1	3.9	50.9
Rudy	Red	60.6	3.2	48.8
Tasmania Red.....	Red	61.5	3.5	48.4
Tuscan Island.....	Red	60.9	3.5	48.2
Bulgarian	White	60.3	3.3	47.3
Geneva	Red	62.1	3.5	47.1
McPherson	Red	61.8	3.2	46.7
Turkey Red.....	Red	61.1	3.2	46.1
Kentucky Giant.....	Red	60.5	3.3	46.0
Treadwell	White	60.2	3.3	45.9

Sixty-one varieties of winter wheat were grown in the Experimental Department during the past year. The five highest yielding kinds were of the Dawson's Golden Chaff class, having beardless heads, red chaff, and white grain. The yields in bushels of grain per acre of these varieties were as follows: Abundance, 62.7; No. 6 White, 61.0; Superlative, 60.1; Dawson's Golden Chaff, 59.5; and American Wonder, 58.7. In weight of grain per measured bushel, all the five varieties went over the standard of 60 pounds, the Dawson's Golden Chaff and the Abundance reaching 61½ pounds. These varieties are all softer in the grain, but yield more bushels per acre than such sorts as Tasmania Red, No. 5 Red, Turkey Red, Crimean Red, and Buda Peth. Those varieties of red wheat which gave the highest yields of grain in the past year were as follows: Imperial Amber, 58.2 bushels; Auburn, 57.7 bushels; Genesee Reliable, 57.1 bushels; Early Ontario, 56.8 bushels; and Prosperity, 55.9 bushels per acre. The average yield of grain per acre in 1905 was 56.7 bushels for the eighteen varieties of white wheat, and 51.7 bushels for the forty-three varieties of red wheat. Generally speaking, the white wheats yield more grain per acre, possess stronger straw, weigh a little less per measured bushel, and are slightly softer in the grain than the red varieties.

Weeds.

Wordsworth says:

"To me the meanest flower that grows can give Thoughts that do often lie too deep for tears."

How expressive of the feelings of the average farmer, as he yearly does battle with the plague of weeds! The old saying is that "Nature abhors a vacuum." It seems to be true, for no void and desert place is seen which does not harbor a weed of some sort. The lawn is covered with dandelions, the garden is full of pigweed, and over the fields the yellow heads of mustard snell trouble without end. Should not our teachers in

the public schools teach something of the common weeds of farm and field? Not long ago, a farmer was found cultivating ball-mustard, and preserving it in his garden patch, because he thought it a valuable food for cattle. It is actual knowledge that is needed. Every man, woman or child living in a country district should know the common weeds, and until they do we shall continue to be cursed by the plague of weeds.

The Hessian Fly.

During the summer complaints have reached us from several sections of damage to fall wheat by that old enemy, the Hessian fly, and it will be well for farmers in infested districts to take reasonable precautions that the crop now about to be sown may be not unnecessarily ravaged. The Hessian fly, as most of us are aware, hatches two distinct broods in the fall-wheat area of Canada. In the Northwest there is usually only one. In Ontario the mature flies develop and become active in August and September, and lay their eggs on the young blades of new-sown fall wheat. From these eggs minute grubs hatch and make their way down the stem to the base, where they embed themselves and feed upon the sap of the plant. By winter they have entered the pupa stage, becoming what are popularly known as "flaxseeds." In May and June flies will emerge from the "flaxseeds" and lay eggs on the wheat blades for another brood. Again grubs hatch from the eggs and make their way down the stalks, this time embedding themselves at one of the lower joints of the stem. It is these maggots which do the harm noticeable at the time of ripening. They pass the summer as "flaxseeds," in the stubble as a rule, and the flies appear in August and September, as above stated. The immediate effect of the larvæ or grubs in the young wheat is to either kill the plants outright or to so weaken them that they make a poor growth, and in all probability succumb to winter-killing. Then again in the following spring the flies from the hibernating flaxseeds lay their eggs, from which hatch the spring brood, which causes the crinkling of the grain and prevents the kernels from filling. The fly is thus a double scourge. In Manitoba, where the spring brood is the only one, the flies are carried over winter in the pupa stage of the early-summer brood.

With us, the appearance of the fall brood of adults is believed to vary somewhat, according to weather conditions. Cool, damp weather during the breeding season is believed to be favorable to the development of these insects. If during the last week of August the weather were cool and moist, the flies would come on rapidly, and be at work depositing their eggs during the first week of September, whereas, if the weather continued hot and dry till well into September, the appearance of the laying flies would be deferred somewhat, and wheat sown much before September 20th would be in danger of being affected. The opinion of investigators is that wheat may be sown with comparative safety in any locality a week or ten days after the fall brood have emerged and commenced laying their eggs. To attempt to formulate a rule prescribing a date at which it is safe to sow fall wheat in all seasons is unsatisfactory, although the consensus of opinion is that wheat sown after September 20th is pretty sure in the ordinary season to miss the attentions of the egg-layers, and in some years it is comparatively safe to sow almost any time after September 10th. There is this in favor of deferring seeding till, say, the middle of September; by cultivating the ground frequently until that date more weed seeds are germinated and destroyed, while the tillage puts the ground in the best possible condition to insure prompt germination and thrifty growth of the wheat, thus enabling it often to get as good a top as it would do sown earlier in a less perfectly prepared seed-bed. The brood comes on a little earlier in northern than in southern latitudes, a fact which is fortunate for farmers in districts where wheat must be sown in the fore part of September in order to secure enough top to stand the winter.

There are sometimes apparent anomalies in connection with attacks of Hessian fly, which, to the uninformed, tend to discredit the recommendations of investigators. In some cases wheat sown very early has been known to come on ahead of the fly, and when the latter appeared it seemed to prefer the more tender blades of the later-sown crop. This, however, should be regarded as an exceptional circumstance, and one hardly to be depended on. Some varieties of wheat are more resistant than others. Varieties with large, coarse, strong straw are less liable to injury than weak-stawed, slow-growing varieties. Wheat sown on a stubble field where the fly had been bad on the previous crop would run a much graver chance of injury than that sown on ground where wheat had not been grown for a year or so. Wheat on dryish, poor land is much more susceptible to injury than that on rich, moist but well-drained soil. Thick seeding and vigorous growth tend to ward

off injury by the fly. A method that is frequently recommended but not very often practiced, is to sow "decoy" strips of wheat late in August. Many of the flies will be induced to lay their eggs on these strips, which may then be plowed under and the eggs destroyed. Do not let the strips stand more than four weeks, or but a few days after sowing the main crop.

In combating Hessian fly, great stress is laid by entomologists on cultural practice. Anything which tends to increase the vigor of the crop helps to ward off the fly, or, at least, to minimize its effects. A noted authority, Prof. Webster, of Ohio, who has studied the Hessian fly for many years, believes that four-fifths of its ravages may be prevented by a better system of agriculture.

THE DAIRY.

A Day in a Cheese Factory.

Though cheese has for years been Canada's leading dairy product; though the factories where it is made may be counted by the dozen in nearly every county of Ontario and Quebec, while some are also operated in the Maritime Provinces; though it is with us a more or less common article of diet, and though many thousands of our farmers rely chiefly on their monthly cheese-factory checks as a source of income, there are millions of Canadians, and among them, no doubt, a number of "The Farmer's Advocate" readers, who lack even a general idea of the processes by which this staple food is manufactured. For such, a description of a day's work in a cheese factory, as witnessed by a member of our editorial staff, may be of interest.

Typical of the better class of factories is the North Oxford factory, in the famous Western Ontario dairying County of Oxford. This is the district where one of the first cow-testing associations in Canada was organized last winter. The factory, which is situated about two and one-half miles north of Ingersoll, is a neat brick structure, surrounded with maple trees. A row of them line the driveway which passes the weighstand of the factory, and here a whole string of milk wagons may stand in the shade waiting their turn to unload. This is far better for the milk than keeping the cans in a blazing hot sun. It does not sour so quickly, it makes better cheese, besides which is the comfort of the men and horses, not to mention the esthetic value of the trees themselves, or their wholesome influence on makers and patrons. Not all factories are brick, by any means, and not many have shade trees, but the tendency is towards better buildings and nicer surroundings.

The history of this factory is like that of many others. Built originally as a private enterprise, it was afterwards taken over by a joint-stock company, but has now passed back again into private control. Mr. G. M. McKenzie is the modest but capable proprietor and maker, being assisted by his two sons and a hired hand. There are 76 patrons on the books, and the make has annually increased to last year's respectable output of 215 tons of cheese. June, 1906, was the record month, \$8,000 worth of cheese being made. From this, one patron's net proceeds, deducting the cost of making, figured out a check for \$262, besides which he received pay for a portion of his milk which he sold in town. Last year the cows in the herd of Peter Dunne, who used to be a cheesemaker, but is now farming, averaged 7,000 pounds of milk apiece during the cheese season, April 1st to December 1st. Holsteins and their grades are the favorite breed in this district.

FROM FARM TO FACTORY.

We need not pause to describe a dairy farm. The sight is familiar to all our readers. The rising at 4.30 or 5 a.m. to get the milking done, the arrival of the milk hauler at any time from 6 to 7, according to the distance of the farm from his starting point; the trip of the flat-topped milk wagon along the road, with its one to two dozen milk cans, hauled by a usually rather rakish-looking team; the arrival of the hauler at the factory weighstand, after having waited in a procession, perhaps, for half an hour behind other haulers who got in ahead of him; the lifting, weighing and emptying of each can, with the cheesemaker there to sniff as the lid is pulled off the can, to see if there is evidence of sourness, dirt or bad flavor of any kind that might cause trouble afterwards in the vat of milk; the driving a few yards away to the elevated whey tank, where the recently-emptied milk cans are filled with whey from the previous day's make of cheese; the return trip in the blazing forenoon sun, and the delivery of the cans at the milk stands along the route, whence they had been picked up a few hours earlier—all these things are common-place sights in the dairy sections. One of our illustrations shows the last driver of the day just ready to start back with his load of whey. His team, though not one of the best in this particular section, is stouter looking and better fed than a good many that may be seen elsewhere. Milk hauling is a sort of dog's life for man and beast, and it is rather the exception to find a really thrifty farmer undertaking it.

Some patrons prefer to haul their own milk. These get their cheese made for \$1.00 a cwt., whereas the others pay \$1.50. It is hard to get haulers nowadays, and the maker at North Oxford has to pay them more than he makes out of the extra 50 cents a hundred pounds of cheese that he charges patrons for the service. From the standpoint of the patron, however, there can

be no question of the economy of having his milk hauled on the above terms, excepting, perhaps, a few large patrons, who are situated near the factory, or who have an old man or a boy to make the daily trip.

MAKING THE CHEESE.

Perhaps it will conduce to a clearer idea of the process of manufacture to preface the description with a brief outline of cheddar cheesemaking. [Cheddar cheese is practically the only kind made commercially in

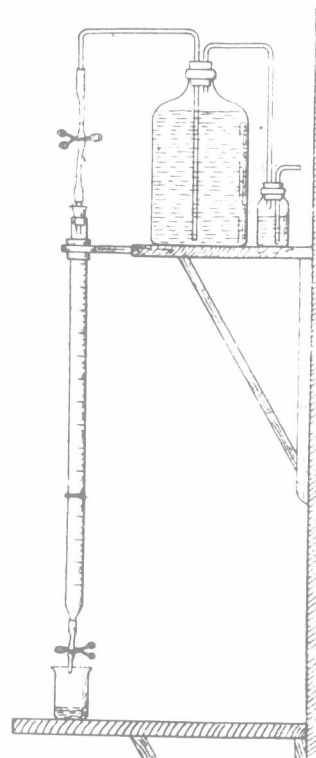
lactic acid. The object is to produce a uniform quality of cheese. It is accomplished by adding to each vat a pailful of "starter," which is milk of the previous day soured by inoculation with a pure commercial lactic-acid culture. Either of two tests may be used to determine the proper degree of ripeness. The old test was what is known as the rennet test, and this is still used in many cases. Of late years an apparatus called the acidimeter has been used for this purpose, as well as to determine the percentage of acid at various successive stages of the process of manufacture.

The acidimeter is an apparatus for measuring the percentage of acid, or, that is to say, the degree of sourness in milk. Its principle is very simple. It is a well-known fact in chemistry that acids and alkalis have the power to neutralize each other's properties. Moreover, it is known that the act of neutralization is a definite one; that is, for a certain quantity of an acid a certain quantity of an alkali (also called a "base") is required to effect neutralization. The acidimeter is a means of measuring the amount of a standard alkaline solution required to exactly neutralize the acid in a given quantity—say 10 cubic centimeters—of milk or whey. The liquid to be tested is measured into a beaker, and the neutralizer slowly added from a graduated burette, with a pinch cock at the lower end. To indicate when the point of neutralization has been reached, a "color indicator" is put into the milk before adding the alkaline solution. The indicator consists of three or four drops of phenolphthalein, a substance which shows no color when the liquid is acid, but changes promptly to a pink when the neutral point is reached. Just enough alkali is added to the milk to produce a permanent color. Note is then taken of the amount of the alkaline solution that has been used, and the percentage of acid in the milk is methodically calculated.

After the starter has been added the coloring matter is put in, unless it is desired to make white or uncolored cheese, as is done in the North Oxford factory. Cheese coloring is made from annatto seed dissolved in an alkali; also from coal tar and from saphron. Coloring matter adds no food value; it is rank-smelling stuff, and an educated consumer's taste will ultimately cease to demand it. A large quantity of uncolored cheese is now manufactured. The usual amount of coloring added is one to one and a half ounces per 1,000 lbs. of milk.

When the acidimeter indicates that there is .19 per cent. of acid in the milk, it is "set" (temperature, 86 degrees Fahr.), by the addition of three to five ounces of rennet per 1,000 pounds of milk. Rennet is an extract from a calf's stomach, but it is now also obtained from plants, such as figwort, mallowwort, etc. It is sold in two forms, liquid and powder. The powdered form is seldom used in Ontario. Rennet acts on the casein of milk, splitting it up into two compounds, soluble and insoluble. It will not work properly on milk which has been boiled, or which is alkaline. Its visible effect is to thicken the milk into a smooth, white, jelly-like consistency, like the familiar thick milk which everyone knows.

The coagulation is normally complete in about half an hour from the time of adding the rennet. At this stage the "cutting" begins. The first is horizontal cutting. A curd knife is used, with a number of horizontal blades, spaced about $\frac{1}{2}$ of an inch in a steel frame. Running this through the vat lengthwise cuts the curd into layers. A similar knife, with the blades vertical, used to be employed for the vertical cuttings, but now a vertical knife is made with wires instead of blades. The new style is handier to use, and disturbs the curd less, resulting in a more evenly cut curd. Curd is cut so that the whey may be readily expelled while heating or cooking is being done. Careless cutting and rough handling of the curd causes loss of fat and injures the texture of the cheese. Unless agitated soon after cutting, the curd tends to mat together again. Agitation or stirring used to be done by hand, but nowadays automatic agitators (run by an engine) are used, several being in one vat. It is better than hand



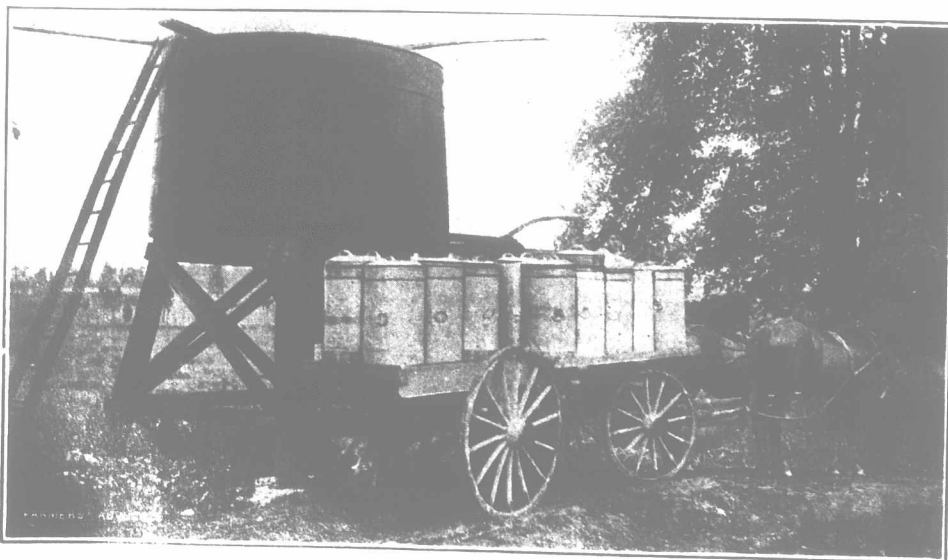
Diagrammatic sketch of an acidimeter.

Canada.] After being received at the stand the milk was run into five long vats, holding 5,000 or 6,000 pounds of milk each, one being filled after another. Here operations begin. To enumerate, they are: Ripening the milk, coloring (optional), renneting, cutting (once horizontally and twice perpendicularly, as a rule), cooking, dipping, matting, milling, salting, hooping, pressing (lightly at first, about one hour), dressing, pressing again, putting the cheese into the curing room, turning them on the shelves, boxing and shipping.

Ripening the milk consists in the development of



The North Oxford Cheese Factory, near Ingersoll, Ont.



Starting Back with a Load of Whey.

stirring, and much cheaper. A number of these agitators (momentarily stopped so that a photograph might be taken) are shown in one of our illustrations. While the agitation is in progress the cooking proceeds. By steam connections under the vats (a distinctive feature of Canadian cheddar-cheese making) the temperature of the vat is gradually raised from 86 to 98, or even 102 degrees, the aim being to get it to this temperature in an hour to an hour and a half. The steam is then turned off, and in one and a half to two hours the curd is ready to "dip." Sometimes, however, a certain vat containing some overripe (sour) milk will be "fast-working," and be ready to dip in an hour. The philosophy of cooking is this: The heating causes contraction of the curds, and, consequently, expulsion of moisture, notwithstanding that the pieces of curd are floating in a bath of whey. This contraction of the curd is brought about by the action of the rennet and development of lactic acid, which takes place very rapidly at this stage. A membrane forms over each piece of curd, which retains the fat that has been incorporated with the casein, but allows the moisture to pass through. Pieces of a well-cooked curd should not stick together when pressed in the hand.

"Dipping" consists, practically, in drawing off the whey by either a siphon or a tap. The whey runs into a gutter, which passes along the end of each vat, and leads to a cistern-like tank just outside the building, whence it is afterwards pumped to an elevated tank that should be, though sometimes is not, situated several rods away from the factory. When preliminary tests with the acidimeter show the curd is about ready to dip, most of the whey is drawn off, and the operation is completed quickly when the right amount of acid has been reached at this stage. The acidimeter is displacing the time-honored hot-iron test. The hot-iron test consisted in touching a piece of curd gently against a hot iron, and then drawing it out. The greater the amount of acid the more ductile the curd becomes. When it draws out about an eighth of an inch the curd is ready to be separated from the whey—i. e., it is technically ready for "dipping." If the acidimeter be used it will indicate from .17 to .2 per cent. of acid in the whey. This, it will be remembered, is about the same percentage as was indicated at the time of setting.

The explanation why the whey at dipping shows no more acid than the milk did at setting is, that immediately after cutting the curd, the whey will test only about two-thirds as much as the milk did. The balance is contained in the cubes of curd. As the cooking goes on the acid develops principally in the cubes of curd, and is expelled by the action of the rennet and heat into the whey. This is allowed to go on until the proper dipping point is reached.

As soon as the whey is well run off, a curd sink or "drainer" is wheeled up to the end of the vat and the curd quickly bailed into it with flat-sided pails. A "drainer" is something like a vat in shape and size, but it has no provision for steam connections underneath, and on its bottom is a slatted rack, through which drips the whey that is subsequently stirred out of the still-moist curd. A large piece of cheese cloth

is thrown over the bottom and sides of the drainer—this holds the curd, while allowing the moisture to drain away. The curds are then stirred about by hand until they are drained comparatively dry.

The curd is then allowed to settle together or "mat." In about half an hour it is ready to cut into strips about six inches wide, four inches thick, and fourteen to sixteen inches long. These are turned over, and, subsequently, reversed several times. About two hours after dipping the curd is ready for "milling," an operation that may usually be deferred till after noon. The drainer is wheeled under the mill, and the chunks of matted curd are fed into it by hand, the milled curd dropping in the other end of the drainer. There are several makes of mills, but all are now usually run by steam power. The mill cuts the curd into short, square strips, about three-eighths of an inch in diameter. The more uniform the size of the pieces the better.

When the curd becomes velvety, and has a nice buttery flavor, it is ready for salting. About two to two and three-quarter pounds of salt per hundred pounds of curd are sprinkled over the lot. The lighter rate of salting is now commonly preferred. In the North Oxford factory the salt was first lightly brushed into the

surface and then mixed through it with a special tool, resembling a fork with the end of each tine bent into an O-shape. This obviates the disagreeable job of mixing with the hands, which, if they happen to have any abrasions on them, are so affected by daily contact with salted curd that they get extremely sore.

When the curd in all the drainers has been salted it is filled into the hoops. Wooden hoops have given place to steel ones, of the kind shown in our illustration. The hoops are filled with a pail, which is hung on a spring balance and weighed. In the North Oxford factory the rule is 96 pounds of curd for each hoop, and this will make about an 84-pound cheese.

When all the hoops in one press are full, they are laid end to end, and screw pressure by means of a lever applied at one end, crowding all the hoops together and expressing the remaining whey. After being pressed for rather less than an hour, they are taken out and the "banding" (with cheese cloth) is "finished" neatly. They are then put back in the press and left till morning, when they are once more taken out, each cheese turned end for end in its hoop, and pressed again for a time. They are then taken out for the last time, and put on the shelves of the curing-room, where they are supposed to remain about two weeks. The last four seasons—1903, 1904, 1905 and 1906—the North Oxford factory is sending its cheese daily to the Government cool-curing room at Woodstock.

The high prices this season result in haste to ship the cheese, even from the Government curing-room, where the loss in weight during curing is not so great as in an ordinary over-heated curing-room. In many factories the cheese are being bought and shipped within a day or two after leaving the hoops.

The curing must be done some place, however, for a new-made cheese is about as digestible as India rubber. It is only when bacteria have broken down the insoluble casein into soluble digestible forms that cheese becomes the wholesome, nutritious article of diet that constitutes alike the staple food of the English poor and the delicacy of the rich.

Cow Testing.

The table giving the result of the first test at Chicoutimi, Lake St. John district, shows that the 154 cows averaged, in the 30 days ending July 23rd, 718 lbs. of milk; thus the milk record of the best cow in herd 22, namely, 1,170 lbs., is an object lesson. If a few more cows gave 452 pounds above the average, what a general improvement would be made. That same 1,170-lb. cow is just 400 pounds better than the highest producer in herd 31. The lowest individual yield was 420 lbs., or 750 lbs. less than the highest.

This first test in another of the Lake St. John district associations, Riviere a l'Ours, opens with 112 cows, and a rather low average production of milk and fat per cow, about three hundred pounds of milk per cow less than it should be. The highest individual yield of milk is 820 pounds in herd 14, nearly double the best yield in herd 8, which is 388 pounds. What room for improvement! The lowest individual milk yield was 200 pounds.

The table giving the result of the seventh test at Cowansville, Que., shows a slight decrease of 2 pounds of fat on the average from the June test.

With an average production of 582 lbs. milk for all the 391 cows tested, there are four conspicuous herds with individual cows giving over 1,000 lbs. There is plenty of room for more such individuals. The highest average yield of milk by a herd was 786 lbs., the lowest 445 lbs. Highest individual yield, 1,060 lbs; lowest, 200 lbs.

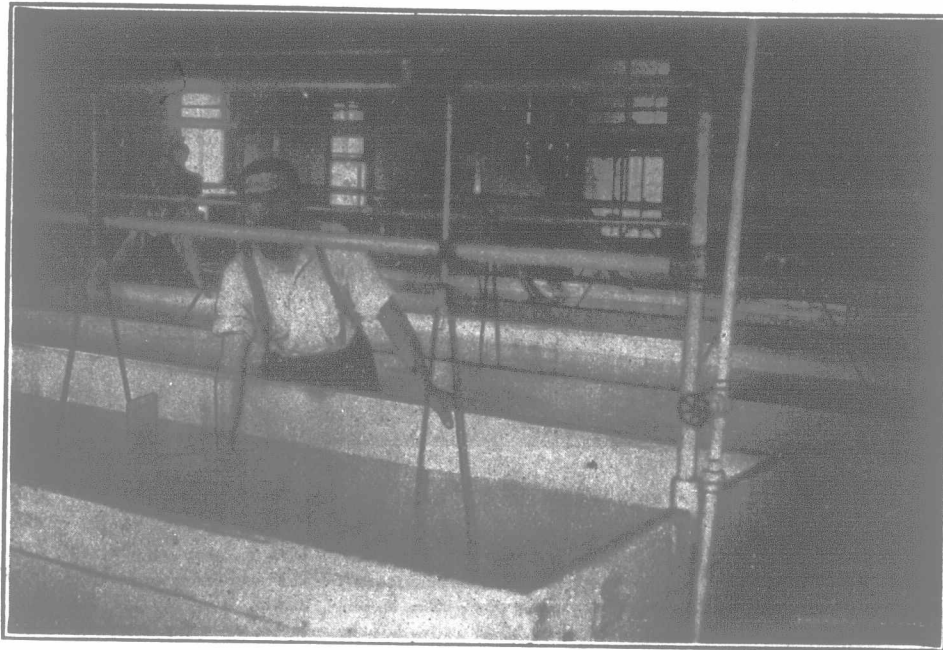
The fifth test at St. Armand, Que., ending July 23rd, gives a decrease of 2 lbs. of fat per cow from the June test. Herd No. 15 has the excellent record for an eight-year-old common grade cow of 1,610 lbs. milk. She calved in May. The ten-year-old common grade cow in herd 27, calved in March, also shows up well, with 1,220 lbs. milk. The highest herd average for the 30 days was 760 lbs. milk; the lowest, 236 lbs. Highest individual yield, 1,610 lbs.; lowest, 190 lbs.

The figures giving the result of the fourth test at North Oxford, Ont., for the 30 days ending July 23rd, show a shrinkage from June of 137 lbs. milk per cow. Probably, if the heat of July had been prepared for in May by everyone in the test sowing a supplementary soiling crop of peas and oats, the 1,000-lb. average of last month might have been repeated. The highest average for a herd was 1,083 lbs.; lowest, 719 lbs.; highest individual yield, 1,420 lbs.; lowest, 145 lbs.; highest test, 4.2; lowest, 2.4.

Feeding Fat into Milk.

Bulletin No. 222, of the Cornell University, is entitled, "Record of an attempt to increase the fat in milk by means of liberal feeding." The following is a summary of this bulletin:

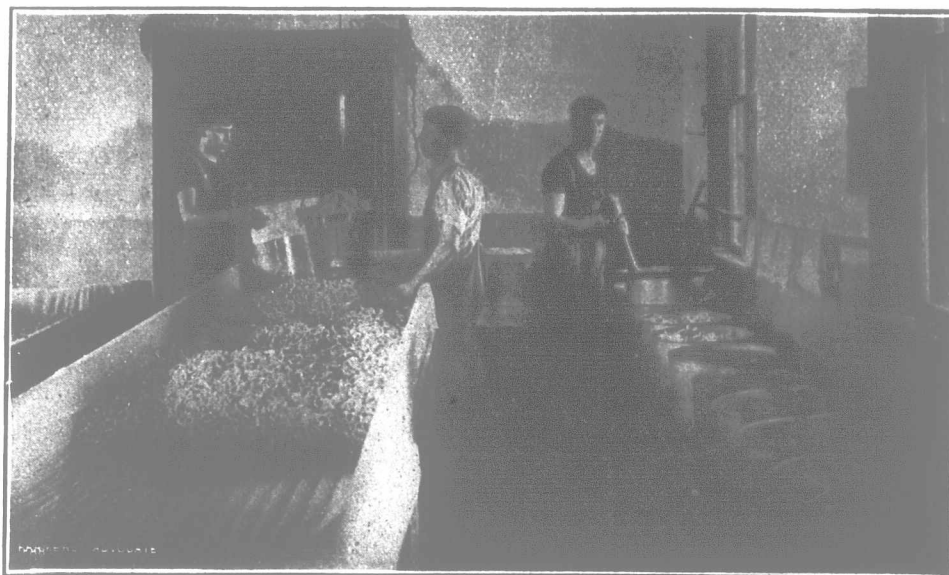
In a herd of poorly-fed cows an abundant ration, easily digestible and rather nitrogenous in character, and continued through two years, resulted in an average increase of one-fourth of one per cent. of fat in the milk. This was accomplished by an increase of about 50 per cent. in total amount of milk and fat produced. The increased production was secured economically, so far as the food cost of milk and fat is concerned. Whether the experiment was comprehensive enough to be really conclusive is open to question.



Cooking the Curd. Note the Automatic Revolving Agitators.



Stirring the Moisture Out of the Curd, Just After Dipping.



Putting the Curd in the Hoops.

English Butter Test and Milking Trials.

In the one-day butter test for cows of any breed or cross, at the Tunbridge Wells Show, July 26th, the averages of the 12 cows in the competition were as follows:

	Days in milk.	—Yields—				Ratio.	Points.
		Milk. lb.	Butter. oz.	lb.	oz.		
12 Cows	120	33	13	1	14½	17.68	38.55

The first prize of £10 went to Dr. Watney's Jersey cow, Guenon's White Thorn, 10 years old, whose yield of milk, 61 days after calving, was 45 lbs. 6 ozs., and of butter, 2 lbs. 13 ozs.; ratio, pounds of milk to pounds of butter, 16.13. All the other cash prizes and five certificates of merit also went to Jersey cows, the record of the second winner being 34 lbs. 12 ozs. milk, and 2 lbs. 2½ ozs. butter, 155 days after calving.

In the milking trial, open to cows of any breed or cross, the first prize went to a dairy Shorthorn, Mr. D. Kelly's Minit 2nd, five years old; her milk record, 115 days after calving, being 64.5 lbs. The second prize also went to a dairy Shorthorn, 8 years old, her yield 144 days after calving being 59.9 lbs.

In the Guernsey butter test, the five-year-old, Lady Russel, gave, 95 days after calving, 41.6 lbs. milk, 2 lbs. 4½ ozs. butter, and won the first prize.

Cow-testing in Alberta.

Under the guidance of C. Marker, formerly of the Dairy Branch, Department of Agriculture, Ottawa, but now Dairy Superintendent in the Province of Alberta, the Agricultural Department at Edmonton has interested farmers of that Province in forming District Dairy Record Associations, the scope and purpose of which are similar to those of the cow-testing associations recently organized in Ontario and Quebec.

GARDEN  ORCHARD.**Fruit-growing in British Columbia.**

Fruit-growing in British Columbia, like the climatic and soil conditions in its various districts, is so diversified in character, and of such importance, that it is hardly possible to do the industry anything like justice in the space at our command, and when the reader has perused this article to the end, he must bear in mind that there still remains much to be said.

Less than sixteen years ago the first full carload of fruit was shipped out of British Columbia. In the season of 1904 the fruit crop was valued at \$600,000, and the area under cultivation estimated at 14,000 acres. In 1905 the area under fruit had been increased to 20,000 acres, and the total revenue derived therefrom was nearly one million dollars. In the same year something like \$500,000 was expended in the purchase and improvement of fruit lands, and the average price received for grade No. 1 apples, from October 1st, 1905, to March 31st, 1906, was \$1.27 per 40-lb. box, f.o.b. shipping point. The early varieties started out at \$1 net, and during the latter part of February and March as high as \$2 per box was being paid for strictly No. 1 in carload lots. The average price of other fruits for the season of 1905 were: Pears, \$1.38 per 40-lb. box; prunes and plums, 75 cents per 20-lb. box; peaches, \$1.15 per 20-lb. box; strawberries, \$2.30 per 24-basket crate; raspberries, \$2.19 per 24-basket crate; blackberries, \$2.40 per 24-basket crate; gooseberries, 5½ cents per pound; crab apples, 2½ cents per pound; tomatoes, 5½ cents per pound; currants, 7 cents per pound; cherries, 9 cents per pound.

Outside of the quantities consumed in our own cities, the chief market for British Columbia fruit is the Prairie Provinces, a market which will always demand the best that the fruit-grower can produce, and in ever-increasing quantities, so that British Columbia need have no fear, no matter how rapidly the industry develops, of an over-production of good, clean, commercial varieties. On the vast plains to the east, fruit-growing on a commercial basis is not likely ever to be a success. That territory is bound to increase rapidly in population, and the consumption of fruit will be enormous. It is a curious fact that the average family on the prairies of the Northwest consumes more fruit than do those of British Columbia, and it is quite natural also to expect that as the farmers of the prairies succeed within a comparatively few years in laying by sufficient to keep them in comfort for the rest of their lives, they should look to British Columbia, with its congenial climate, magnificent scenery and tremendous unexplored and undeveloped natural resources, as a place in which to spend their declining years.

The best immigration work that British Columbia can do is to develop the fruit-growing industry, and to send large quantities of first-class fruit, properly grown, harvested, packed and shipped, into the Northwest. This will judiciously advertise the Province, and bring our own people here as soon as they become tired of the more rigorous climate of the prairies.

The geological formations and climatic conditions render it necessary to divide the fruit-growing area of the Province into nine general divisions.

No. 1 might be called the south-western coast district, which includes the southern half of Vancouver Island, adjacent islands, and what is usually called the

lower mainland. Here the production of small fruits may be said to be more successful, and, consequently, more profitable than that of the tree fruits. Nevertheless, there are a number of very excellent varieties of apples, pears, plums, prunes and cherries, which grow to perfection in this district, besides many different varieties of nuts, and, in especially favored spots, peaches, grapes, nectarines, apricots and other tender fruits.

In most parts of this district, the mild character of the climate and the excessive moisture during the winter season are very favorable to the development of fungous diseases, and it is, therefore, necessary to practice persistent and systematic spraying of the orchards, clean

Spallumcheen river. Here the natural rainfall is sufficient, and splendid apples, pears, plums and cherries are successfully grown. The climatic conditions in this district resemble very much those of southern Ontario, and a fruit-grower with fixed ideas from the latter Province might be more successful in this district than he would on irrigated lands. The timber is, generally speaking, light, and the land rich.

No. 5 is the great Okanagan valley, stretching from Larkin southward to the international boundary. The vicinity of Kelowna in this valley contains the largest area of fruit lands of any one place in the Province. Peaches are now being shipped in large quantities from the Okanagan, and all other northern fruits are successfully grown by the irrigation system. Improved modern methods are in general use by the growers in this district, and the industry is, perhaps, more advanced than in any other part of British Columbia.

No. 6 is usually called the Boundary or Kettle River country, and though the smallest of all the districts named, the quality of the land is excellent, and the climatic conditions all that could be desired. Where a sufficient water supply is obtainable there is no trouble in producing fruit of the highest quality.

No. 7 is west Kootenay, an enormous fruit-growing district,

where only a little progress has been made on the southern portion, but sufficient to indicate the possibilities and the superior quality of the fruit which may be raised along those lakes and streams. The neighborhood of Nelson and Kaslo has accomplished wonders in the last few years, but the shores of the Arrow lakes are practically untouched by the hand of the fruit-grower, and the valley of the Columbia, from the Big Bend south to Arrowhead, affords opportunities little dreamed of by many of those in search of fruit lands. In the greater part of this district, irrigation is only necessary in the very dry seasons.

District No. 8 is the country known as East Kootenay, and is separated from No. 7 by the Dog-tooth range of mountains. It is traversed by the Upper Kootenay river from Thunder Hill southward to Phillips' range, on the international boundary, and from Thunder Hill northward, by the Upper Columbia river, to the Big Bend. In the southern portion of this district there are immense stretches of thinly-wooded lands, suitable for fruit-growing purposes, and the valley of the Upper Columbia has many choice locations for the enterprising fruit-grower. The lack of transportation facilities is a great hindrance to the development of the fruit lands of the Upper Columbia.

District No. 9 comprises the coast region, from Jervis Inlet to Skeena river. There is little known of



Frank Richter's Orchard, Keremeos, B. C.

cultivation of the soil, and a thorough system of under-drainage in order to get the most profitable results.

District No. 2 includes the valleys of the upper Fraser, the main Thompson, the North Thompson, the Nicola and Bonaparte rivers. Here there are practically none of the above-named difficulties to contend with, but the question of water to irrigate the lands is one requiring serious consideration, as without an abundant supply of water in the dry belt it is impossible to be sure of a crop every year. The prospective fruit-grower, however, does not have to contend with the heavy forests along the Thompson river that have to be encountered on the coast. The fruits grown are of the very highest quality, and include all the varieties mentioned in connection with district No. 1.

The largest quantities of grapes shipped annually from any one point in the Province are produced near the junction of the Fraser and the Thompson rivers.

District No. 3 may be briefly described as the valleys of the Similkameen and its tributaries, portions of which are, perhaps, the most tropical in climatic conditions of any part of British Columbia, and most favorable locations for the cultivation of grapes, peaches and other delicate fruits, wherever sufficient water for irrigation purposes is available.

No. 4 includes the districts surrounding Adams, Shuswap and Maple lakes, and the valley of the



Apple Trees, Coldstream Ranch, Vernon, B. C.



British Columbia Cherries.

its capabilities, but, undoubtedly it has a few surprises in store for the future. Though in small quantities as yet, apples, peaches and grapes have been successfully grown on the Skeena. The first apple trees were planted at Hazelton in the spring of 1901, and fruited in the fall of 1904.

For a considerable distance inland, from the west coast, there are a number of valleys and plateaus, which are well adapted to growing many of the hardier varieties, though fewer in number than those capable of being developed in the first-named district.

Notwithstanding the conditions and adaptabilities which may be, in a general way, characteristic of the large districts above mentioned, there are always peculiarities of soil and climate, soil moisture, atmospheric currents, etc., which must be taken into consideration, and intelligently utilized in a common-sense way by the individual settler when choosing varieties to plant or deciding on methods of cultivation.

That the supply of water from mountain streams for irrigation purposes is limited, should always be borne in mind, and in those portions of the Province where irrigation is necessary, the prospective settler or investor should be exceedingly careful that a proper supply of water is available, and that he secures a legal right to use it when purchasing fruit lands. There are many of the so-called dry districts where the soil moisture, with proper cultivation, is quite sufficient to produce a full crop in an ordinary year, but there comes, periodically, the extraordinary year when, without any artificial supply of water at hand at the critical time, the whole crop may be lost. In the arid districts it must be seen to that the right to a sufficient supply of irrigation water is obtained, whether needed every year or not.

There are immense fertile table-lands along the Thompson, Columbia, Kootenay and Similkameen rivers, and the Kamloops, Okanagan, Upper and Lower Arrow and Kootenay lakes, which cannot be irrigated from the available mountain streams, but it may safely be predicted that some day, in the not distant future, a genius will arrive who will contrive to invent a comparatively cheap method of pumping the water from these large reservoirs up to the higher levels, and who then will venture to estimate the quantity of rare and luscious fruits which this Province may be capable of producing, or the gratitude that future generations will lavish on the memory of the man who shall make the cultivation of these beautiful plateaus possible? Then will the glittering Okanagan Lake become a magnificent water highway, through the midst of densely-populated stretches of orchard lands. On either shore will be one continuous line of superb villa homes, and all up and down those scenic galleries of luxurious gardens will dwell the kings and queens of husbandry in the happy performance of the first duties allotted to mankind.

By establishing high standards and the practice of high ideals, both in the quality of their products and business methods, fruit-growers of British Columbia should have a large share in building up the commercial character of the Province, which, like the golden beams of the summer twilight, shall shed its benign influence eastward over the great Dominion of Canada.—[Maxwell Smith, in B. C. Review.]

What is pluck? Pluck is the unconquerable spirit which enables one to defy discouragement, persevere, prevail, and turn defeat into victory.

Exhibition Fruit and Fruit Exhibitions.

For some reason or other, or, perhaps, I should say for several reasons, fruit exhibitions are not, as a rule, so instructive as live stock and other shows. Certainly they are not as instructive as they ought to be. Of course, in a way, the live-stock men have the advantage of the fruit men, from the fact that when they bring a cow to a show, for example, they are bringing the whole thing, while the fruit men are only bringing the final, finished product. Fruit men are about on a par with a hog-raiser who should exhibit sausages. The sausages might be most excellent, and to the mere consumer might be all that could be desired, yet they wouldn't be as instructive to the man who wanted to learn as the live animals.

But while we fruit men may be handicapped, I think we are like most other people in most situations, we don't do, as well as we might, nor even as well as we know how very often; and it is in the hope of helping somewhat to improve fruit exhibitions that this article is undertaken.

The first requisite, of course, is good fruit, well grown and well colored, but with that we shall not concern ourselves, but assume that the intending exhibitor has done everything in growing his crop to assure fine fruit. Having done this, a great many exhibitors make serious mistakes in the time and manner in which fruit is selected. Fruit should be fully matured and well colored before it is gathered, but avoid overripe specimens too. The "golden mean" is extremely important just here; and by all means select the fruit in the orchard. No man can make a proper selection of exhibition fruit digging about in a barrel or a basket for his specimens, nor even (in the writer's opinion) from the packing table, though this is much better. I believe that fruit for exhibition purposes should be taken directly from the tree; and with apples and pears, one of the long-handled "pickers" will be found invaluable, as the best specimens usually grow out of reach; and don't be satisfied with anything short of perfection. Don't imagine because you didn't see the little scar or scab or wormhole when the fruit was hanging on the tree, that the judge will not see it when he comes to examine the fruit on the plates. There will be enough blemishes creep in if you aim at perfection.

Then handle the fruit carefully—very carefully! Any fruit which has a bloom on it naturally ought still to have that bloom on it when the judge gives his decision on it; and the longer fruit must stand on the tables, the more important does careful handling become. An excellent way is to take ordinary grape baskets to the orchard or vineyard, and lay the fruit directly into these as it is picked, and then take it to the packing-house to cool and be packed later on. This matter of careful selection and careful handling cannot be emphasized too strongly, for no one who has not acted as a judge of fruit can realize on how small a point the decision sometimes turns.

Then, again, don't be afraid to select plenty of fruit. If the prize-list calls for five apples to a plate, select at least twice that number, from

which later on to choose the final sample which shall represent your judgment in the competition. Many an exhibitor has been disappointed when he came to put out his fruit and has lost the prize, because some little blemish escaped his notice when the fruit was packed, or has developed since, and he hasn't an extra fruit to take the place of the damaged one.

In putting fruits up in acids, as must sometimes be done with early, perishable stuff, one needs experience to be sure of success; yet a few rules, carefully observed, will usually give good results. It is a big subject by itself, and I shall only attempt a few brief suggestions here. My general remarks as to the selection of fruits will apply with special force here. Choose fully-matured, highly-colored, ripe specimens, perfect in every respect, but not overripe. Handle by the stem, if possible, and place directly in the jars in which they are to be preserved, which ought to be clear white glass, not greenish, as this latter prevents the colors of the fruits from showing in their natural tints. Arrange the fruits carefully in the jars, so that they make the best appearance, and then put the jars away, either in a refrigerator or some other very cool place, until they are well cooled down; then pour over the liquid and seal. For a preserving liquid various chemicals are recommended, but in the writer's experience and observation, nothing is better than a 2% solution of boric or boracic, dissolved in water. The percentage, of course, is figured on weight.

In taking fresh fruit to the place of exhibition, I have found barrels for the larger fruits and baskets for the smaller ones to be the most satisfactory method where shipment is made by train. Apples and pears should be packed with layers of excelsior, and the more tender fruits with cotton batting.

We come next to the question of putting up the exhibit. In the ordinary single-plate entries there is no chance for the display of artistic ability in arranging them, but there is a chance for a good deal of judgment in choosing out of the ten fruits brought to the show room the five (if it be pears or apples) which shall stand the best show of taking the prize. No doubt the choice will depend somewhat on the judge, for different men have different ideas as to what constitutes excellence in fruit, but, in general, the points would be the same, and would include size; form, whether typical for the variety or not; color, freedom from blemishes, and uniformity. The latter point is, perhaps, more often overlooked than any other, yet, in my opinion, it is one of the most important. A plate of apples, even though they may not be of the largest size nor of the highest color, if they are perfectly uniform in every way, color, size, shape and even ripeness, is very attractive.

I shall not touch upon the question of what might be called display or advertising exhibits, because that is quite a different matter from ordinary fruit exhibits, and one which would interest not five readers of "The Farmer's Advocate." I may say in passing, however, that I believe massing varieties—that is, having a number of plates

of one variety—is more effective than almost any other method.

I said in the beginning that I did not think our fruit shows were ordinarily so instructive as they ought to be. May I suggest in closing a few ways in which it seems to me they might be improved in this respect. One of the most important deficiencies is poor labelling. If a visitor takes any sort of critical interest in the show he wants to know what he is looking at. Doubtless there are many to whom an apple is an apple, and if it is big and red, that is all which is required to excite their unbounded admiration. But the man who is going to get any lasting good from the fruit show wants to know whether he is looking at Wolfe River or Alexander, or a small red pumpkin, and he may have to depend on the labels for that information; consequently, the labels should be large enough to be easily read, and there should be no question where one variety ends and another begins.

Secondly, I believe that greater prominence should be given to collections of fruits—that is, to commercial sorts. There is nothing more instructive, not only to the intending planter, but to the outsider (or insider) who is studying the fruit industry of any locality, than these collections of the "best five, eight or ten commercial varieties."

Thirdly, the commercial side in another way should be brought into prominence, by offering good prizes for "fruit packed for export" in all the various packages used for the different fruits.

And, lastly, I should like to see an opportunity given for the judge to discuss with the exhibitors his reasons for deciding as he has done. I am sure, from my experience as a judge, that if the exhibitors could go over the different plates as carefully as the judge does, they would very much oftener agree with his decisions. It so often happens that the plate of large, finely-colored apples, which at first sight would be easily entitled to first place, is found on more careful examination to have a big spot of "scab" or a wormhole, or some other defect, neatly concealed from the casual observer.

F. C. SEARS.

APIARY.

Only the Bees Themselves Can Ripen Honey Properly.

Annually we are impelled to ring the changes on the unwisdom of extracting frames of combs before they are capped. Following is a sensible argument on this subject by Alpine McGregor, of Peel Co., Ont., in Gleanings in Bee Culture:

I remember very well when D. A. Jones was "King" in Canada. He practiced and advised extracting before the combs were capped, and ripening the honey in tanks holding about 375 lbs. All the beekeepers with whom I was acquainted, and I think I may say the majority in Canada, followed this plan. The result was that the honey market for years was such that it was more difficult to sell the honey than to produce it. Many went out of the business; and those who remained, the writer among the number, decreased their stock. I will mention just one case in point.

A man, less than two miles from here, about twenty years ago extracted over 200 lbs. per colony. Being short of ripening-tanks, he ran it into cans too soon; and the consequence was that every pound fermented, bulged out the cans, and forced itself out at the top. It was all sold within twelve miles from here, and I need not enlarge on the effect it had on the demand for honey in this locality.

I will not say that good, thick honey cannot be produced by artificial ripening, provided there is plenty of ripening-tank capacity and the weather is hot and dry; but take any one of the last three summers—last summer especially—when almost every second day there was rain, a damp atmosphere, cloudy and cool day and night—will anyone say that honey could be properly ripened in such an atmosphere and at such a temperature?

About twenty years ago the writer was present at a convention in the City Hall, Toronto. The Rev. L. L. Langstroth, Mr. A. I. Root, Prof. Cook, Mr. D. A. Jones, and many other prominent beekeepers from the United States and Canada were there. In the course of a discussion, Prof. Cook arose and asserted, with all the dogmatism of a fifteenth-century Calvinist, that honey extracted before it is sealed and artificially ripened is just as good as that fully ripened in the hive. He had tested it—with some of his students, I think he said—and they could not tell any difference. He further stated that we could not afford the time to let the honey ripen inside the hive. Mr. A. I. Root took the opposite view, and maintained that honey which is fully capped before extracting is superior—a position which I believe is endorsed by nine-tenths of the beekeepers throughout the United States and Canada to-day.

Right here I may say that I do not consider

an extracted-honey producer fully prepared for his business unless he has three supers for each colony of drawn combs. Thus equipped we can afford the time to allow our honey to become fully ripened in the hive.

I shall not presume to question the Alexander method of extracting honey in his locality, especially buckwheat honey. I rather fancy that exposing it in large tanks for a week or so would improve it, as it might dissipate some of the aroma (?). But I do not want to see that system revived and reintroduced through the medium of Gleanings.

Wintering Bees.

It may seem a little premature to bring up at this time the matter of plenty of well-sealed stores for bees in winter, writes Grant Stanley, in American Bee Journal, but I believe that just now is the proper time to discuss it. If we wait until frost has cut off every vestige of bloom it is entirely too late to say much about it, as by this time cool weather is in evidence, and robbing will be started with a very small amount of tampering with the bees, unless great care is exercised. It is of as much importance that we look into the question of well-sealed stores for winter somewhat in advance of their needs, as it is for the householder to see that he has sufficient fuel provided for the winter, and as honey is "fuel" to bees during their winter's repose, and as many beekeepers purchase their fuel with the proceeds from the bees, is it not equally important with our bees? We would not think much of a man who would not supply fuel somewhat in advance of his needs, and yet when it comes to the wintering of our bees the matter takes on an entirely different attitude with too many beekeepers. It is a poor way of living, either with man or bees, to live "from hand to mouth."

The fall of the year is the "harvest time," in which all humanity "lay in" for the coming year, and it is just when the bees should have a good portion of what they have struggled hard to bring home. It has been the opinion of the writer that more bees perish from the rigors of winter from an insufficient quantity of well-sealed stores, than from other causes combined, even including the dreaded diseases of black and foul brood; and the sulphur pit may also be included. If we will but watch the bee papers closely each spring, we will be surprised at the vast number of colonies that "go over" on account of a scant supply of stores; and then when we take into consideration that only about one beekeeper in ten reads the papers in this country, how many hundreds of colonies perish, the reports of which never reach the press. This and other causes have led me to write thus early, in an effort to awaken an interest.

There is a large class of beekeepers who will not feed their bees in the fall, even if they know they have an insufficient supply for the winter, preferring to trust, as some men do in all business, to "luck," and the chances of a moderate winter, with occasional days sufficiently warm for inspection. If the winter in this case turns out severe, and the bees run out of stores and die, it is, of course, termed "bad luck." Such beekeepers as this would benefit the industry and themselves far more if they would stay out of it.

He is also not much of a beekeeper who will have his bees toil all summer, and then, in his greed for gain, take honey from them so close in the fall that they have an insufficient amount for winter. But there is a class of beekeepers that desire to have their bees so well supplied with stores at the approach of winter that no uneasiness need be felt until warm weather has arrived the following spring; in fact, so well supplied that he need not "jockey" his bees in spring with daily applications of syrup to get them up for the honey-flow. To tamper with bees early in spring results in far more harm than good.

I have put a great deal of thought into this subject, as I want my bees to have plenty of well-ripened stores of the same quality I take myself. With the invention of the modern hive, some of them with shallow brood-chambers, compel the bees to store all honey gathered above the frames, or in the sections, and this is just where we want it during all the honey-flow; but if the sections are allowed to remain on the hives until frost, there is sure to be a small amount of honey stored in the brood-chamber for winter—possibly an inch or two below the top-bars. I use those shallow frames, for I believe they possess many points of merit not found in other frames; but the question of such colonies having plenty of well-sealed stores at the approach of winter, and not feed them, caused me no small thought, as feeding is a mussy job, to make the best of it, and always attended with more or less risk. I would discourage it as far as possible, especially with the beginner; yet I would far sooner feed the bees than take any chance whatever on the bees not having plenty of stores. But where plenty of stores can be secured from the fall bloom, and as this fall honey is dark and not nearly as salable as light honey, yet equally good for wintering, I doubt if it will pay to take such stores from the bees, buy sugar, and take the risk and labor necessary to feed them.

The fall of 1905 I removed all supers containing sections, just seven days before the first frost, compelling the bees to store every drop of honey gathered in the brood-chambers, and I was surprised at the results. So, last fall, I removed the supers on the same date, but

as we did not have our first frost so early, they certainly gathered a rich "larder." I had nothing to fear or worry about my bees running short of stores, and, more than this, they began brood-rearing last spring with a vim that was little short of marvelous.

Right here let me say that it is well to remember that bees breed only according to the amount of stores in sight. I did not disturb these bees until warm weather arrived, and when I opened the hives they were fairly boiling over with bees, with new white wax at the tops of the frames, and plenty of sealed stores in sight. I had sections sealed during apple-bloom the past spring, something I never had before.

Now, in conclusion, I want to say this: Formerly I had about an inch, or an inch and a half, of honey sealed in the tops of the frames for winter, where last fall the hives, when being raised to estimate their weight, seemed like lifting an immense stone. I suppose each hive contained 50 or 60 pounds of honey, all sealed and compactly arranged in the shallow brood-frames.

By all means, see that your bees have plenty of well-sealed stores at the approach of winter; pack them well with good, porous material, and let them alone until warm weather arrives, and when you open the hives in spring you will readily admit that it pays, and pays well. These colonies will come out ahead in spring, and be ahead all through the season.

POULTRY.

Fleshing Poultry.

If chickens should be fat before they are marketed, how should this flesh be put on? The three best methods used in the Province are: feeding in pens, feeding in crates, and the use of the crammer. Though the crammer will probably make the best product, which on a fancy market will bring a cent a pound more, it will never come into general use, owing to the additional work entailed. Of the other two methods there may be a difference of opinion as to which is better. At the Poultry Institute, held at Guelph last February, where there were probably a greater percentage of men interested in feeding poultry than have ever been brought together in Ontario before, the unanimous opinion was in favor of the crates, because it was less trouble, cost less, and produced a better quality of flesh. There is a marked difference in the quality of the flesh and appearance of the chick fed in the crate. With a little practice one can tell the crate-fed chick from the pen-fed. It has, as A. F. Hunter says, "A kid-glove feel." The flesh is finer and tenderer, the lot will be more uniformly fleshed, as the stronger ones do not drive away the weaker and take their feed; all get their share, and all they can eat. That the trouble is less will be admitted after a good trial. They are easily kept clean; the fat ones are easily selected; no chasing after and getting the others excited. According to Prof. W. R. Graham's experiments, it takes nearly 2c. worth of grain more to put a pound of flesh on a chick running in a pen than it does when fed in a crate. The individuality of the bird can be watched in the crate, and it is remarkable what a difference there is in birds. Some will stand feeding for weeks and make satisfactory gains; others will gain for a week or two and then stand still or go behind; while others, again, have not constitution enough to stand forcing at all. I remember getting some pure-bred Barred Rocks, fine, big, rangy fellows. They were "pure," because the man that sold them had taken a prize at the Toronto Fair, but that's all could be said in their favor. They were certainly big and rangy—they could almost look over a high-board fence—but they could not eat; they couldn't even stand up straight. Not 10 per cent. of them lived to be fat enough to kill; they had no constitution whatever; they had frames enough to carry ten pounds of flesh, but after a few days' feeding they would be found with their great long legs sticking down through the slats of the crate. Though a good frame is necessary to hold the flesh, as a rule the medium-sized, compact-framed bird will flesh more rapidly, and at less cost, than the over-sized bird. The good feeder learns a great deal of detail in feeding chicks. He finds out the type to select and the type to avoid; there are those that he knows he could not feed at a profit if he had them for nothing; he can tell at a glance if his birds are doing well, and he knows just what to do with those that are not. He knows when a chick is fit to kill, or when it requires another week to finish; when to change the feed, and when to leave without food for a time. These, and many other things, the observant feeder learns. An intelligent farmer can feed his own cockerels and old hens and make very satisfactory profits, but close observation of the details is especially advisable when buying and feeding quantities. If chicks are bought to feed, the very first thing is to treat them for lice; no lousy birds will fatten. Dry sulphur, well dusted into the feathers, will be found as effective as anything. Never mind if the feelings of the woman who delivers the chicks are hurt; take no chances, but sulphur every chick before it goes in-

to the crate. I have seen women very indignant because their chickens were dusted the same as others.

In starting to feed, it is a good plan to starve for a day and then commence gradually, feeding less than they will eat clean. After two or three days they can be fed all they will eat up twice a day. Never leave anything in the trough to sour. In reference to the feed no hard-and-fast rules can be laid down. It must be borne in mind that it is not fat but flesh that is required, and in order to obtain a superior grade a flesh-forming food must be given. Two more conditions will govern the food fed—palatability and price. Birds will not make flesh if fed feed they do not like, or if it is fed too coarse, or with too much or too little salt. Mixed grains are the more palatable; or, at least, birds do not tire of a mixture as quickly as they do of a single grain. The price of the various grains composing the mixture must always be taken into consideration. In short, the cheapest, palatable, flesh-forming mixture is the one that will give best results. If it is mixed with buttermilk or skim milk so much the better; if water is used, some animal food will be advisable. This may be conveniently given in the form of blood meal, about one part of the meal to 16 of the grain mixture. Of course, grit must be supplied. So much has been said about the crates and preparing for market that it is getting old; still, if one takes the trouble to observe in what condition much of the poultry is marketed, it would be evident that there was something to learn by some even yet. Bulletin No. 7, issued by the Poultry Division, Ottawa, contains very full information along these lines, and can be had for the asking. Though an old box will answer very well to fatten a few birds in, a few good crates are easily made, and will be found cheaper in the long run. Be sure the chicks are thoroughly fasted before being killed; see also that the bowels, as well as the crop, are empty.

In marketing, I believe the sooner we co-operate the better. Form a poultry co-operative circle, and have from 10 to 50, or those who are convenient, ship together. If possible, let one man do the killing and packing, produce a good article, and put it unto the market in the best-known condition, and see that there is uniformity in every package. There is always a good demand for a fat, well-dressed chick, and for car-loads of the same chickens if they are uniform.

F. C. ELFORD.

Macdonald College, St. Anne de Bellevue, Que.

Fattening Chickens.

"We receive a number of inquiries as to how we feed birds that are being fattened," says W. R. Graham, Poultry Manager, O. A. C., Guelph, in his 1905 annual report. "Most inquirers wish to know the exact amounts fed each day.

"In our experiments we fed very lightly at the beginning—a very important point—and the amount was gradually increased until such times as the birds refused to eat all that was given them. No feed was left in front of them longer than ten minutes after it was placed in the trough. Any food left after such time was removed.

"Whether it is better to fatten birds in crates or pens depends largely upon surrounding conditions, and upon who is feeding the birds. We have had, during the last six years, plenty of opportunities of testing many feeders, and, from careful observation, I think more do better work with crates than when feeding birds in pens.

NOTES ON THE EXPERIMENTS.

"Sour skim milk, i.e., milk that is thickened, is, without doubt, the best liquid to mix with grain rations where a uniform product is wanted, and more so where white-fleshed chickens are in demand.

"Sweet skim milk has not a feeding value for grown chickens equal to sour milk.

"Whey is a better food than is generally considered. The results appear to indicate that it aids digestion.

"Whey and pork scrap have not given the results expected, and I would not recommend this combination.

"Where pork scrap and beef scrap can be procured at reasonable cost, say two cents or less per pound, they are good value, especially where a yellowish flesh is in demand.

"Grain mixtures only, mixed with water, are not economical considering this test."

Ducks are best killed by cutting into the base of the brain at the roof of the mouth. Before killing, the feet of the bird should be caught in a loop, and the latter fastened to a nail, with head hanging downwards. The picking, which should commence immediately after killing, requires to be carefully done, so as to prevent injury to the carcass. Duck-raising is carried on extensively by many breeders, principally in the United States.—A. G. Gilbert.

Vermicide and Germicide.

A remedy for lice-infested premises and disease germs is frequently asked for, says A. G. Gilbert, Poultry Manager, Experimental Farm, Ottawa, in his recently-published bulletin on breeding, feeding and general management of poultry. The following, he says, will be found effective: Corrosive sublimate, 4 ounces; common salt, 4 ounces; dissolve in two to four quarts of water. When completely dissolved, dilute to 25 gallons. With this carefully spray every crevice, nook and corner of the house. As the solution is highly poisonous, care should be observed in handling it.

Follow by whitewashing the premises. Before returning the fowls to the poultry-house, see that they are entirely free from vermin. Insect powder dusted about the heads, on the backs and shanks, and under the wings, will make short work of any lice about the fowls' bodies.

THE FARM BULLETIN.

Cool-curing Cheese.

At the call of the Dominion Dairy Commissioner, Prof. J. A. Ruddick, about one hundred dairymen, prominent in the interests of the cheese trade in Eastern Ontario, assembled at Brockville, August 17th, to discuss three matters of interest to the trade, namely, the grading of cheese, the appointment of an official referee, and the establishment of cool curing in the factories. Among others present were President Derbyshire and Secretary Murphy, of the Eastern Association; A. Racine, M.P.P., of Casselman; Edward Kidd, ex-M.P.; G. A. Putnam, Superintendent of Farmers' Institutes; J. W. Mitchell, of the Kingston Dairy School; G. H. Barr, Instructor for Western Ontario, and G. G. Publow, of Eastern Ontario.

Mr. Ruddick, in his address, stated that the cool-curing rooms at Woodstock, Ont.; Brockville, Ont., and Cowansville, Que., would not be operated by the Government after this year. He said that if he had to build the rooms again the only change he would make, he would not make the cool-curing room quite so expensive, as the insulation in the present ones was a little better than really necessary. He thought the object for which the rooms had been erected had been accomplished, as it had been plainly demonstrated that to secure the fine flavor and silky texture so much desired, the temperature should never go above 60 degrees. The saving in shrinkage during the time the cheese are in the cool-curing room was from 1½ to 1¼ per cent.

There have not been so many cool-curing rooms erected by factory owners in Eastern Ontario as there are in Western and Central Ontario. Mr. Ruddick stated, in his opinion, the reason why there were not more cool-curing rooms put up by the factory men was that where the factory is owned by a private individual, the cost of improvement is usually borne by the proprietor, and he does not get any returns from the effect of cool-curing. He thought that patrons should bear some of the expense of improving the curing rooms. The delegates present were of the unanimous opinion that a cool-curing room was the proper thing.

In regard to the appointment of an official referee at Montreal, Mr. Ruddick made the statement: If a referee is appointed, he will not examine any cheese or butter unless requested to do so by both seller and buyer. This arrangement seemed to meet with the approval of most of the delegates present. A number expressed themselves as opposed to a referee if his work was upon the same lines as were adopted in 1905.

In regard to the question of having three grades of cheese as formerly, there was a difference of opinion; several of the delegates thought the standard for No. 1 grade was too high. There was not much opposition to the suggestion of Mr. Ruddick, that the referee use three grades when examining cheese. A number of those present thought that the work of the referee should be along educational lines, with a view to improving the quality of the cheese, rather than settling disputes between the buyer and seller as to price.

GEO. H. BARR.

Farmers' Institute Convention at Toronto Exhibition.

In accordance with the expressed wish of the Farmers' Institute convention, at the Toronto Exhibition of 1905, provision has been made for a similar gathering this year, on the 5th and 6th of September. It will be held at the special tent of the Ontario Department of Agriculture, on the exhibition grounds. It has been thought well to announce a few topics to be dealt with at stated hours, and to leave the balance of the time for the discussion of such subjects as may be suggested by those present.

PROGRAMME.

Wednesday, Sept. 5th.

Chairman, Hon. Nelson Monteith.

2.00 p.m.—Roll call.

2.15 p.m.—Chairman's address.

2.45 p.m.—Report of the year's work, and plans for the coming series of meetings, including special features of work.

3.15 p.m.—Farmers' Institute Clubs—Their work and relation to co-operation in purchasing, production, and marketing.

4.00 p.m.—General discussion.

Thursday, Sept. 6th.

10.00 a.m.—The encouragement of special lines of agriculture for various sections of the Province.

10.45 a.m.—The weed problem—Present legislation, and the enforcement of the same; desirable amendments.

11.30 a.m.—Advertising of meetings; charges for supplementary meetings.

2.00 p.m.—Roll call and paying of delegates' expenses.

2.30 p.m.—Expenditure of surplus funds. Work which the officers should plan for and carry out.

3.00 p.m.—General discussion.

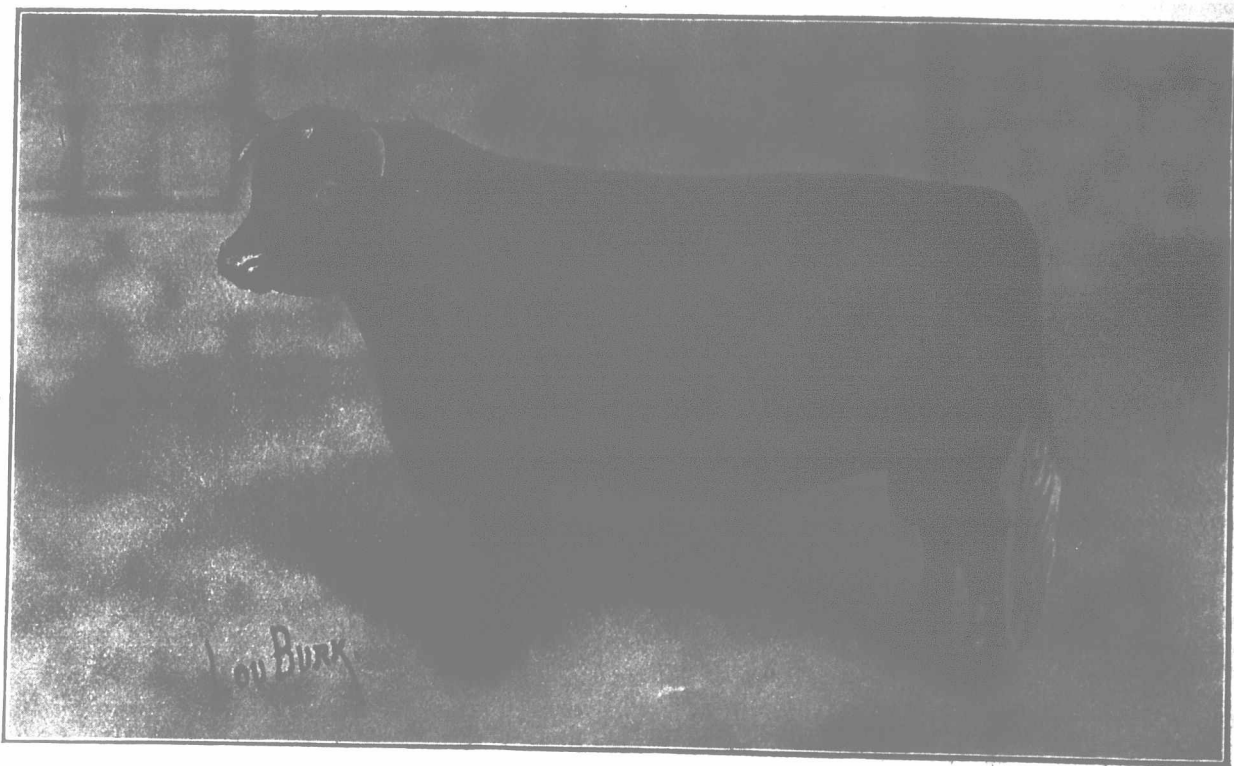
In addition to the topics mentioned above, there are a number of questions of general interest to Institute workers. These will be dealt with at times indicated by "general discussion." Officers of Institutes and delegates are requested to submit additional topics, not later than Sept. 1st, which they would recommend for discussion.

GEO. A. PUTNAM.

Superintendent of Farmers' Institutes for Ontario.

Protection of Railway Crossings.

Last week, at the sixth annual convention of the Union of Canadian Municipalities, held at Halifax, N. S., a resolution was passed, to the effect that, in the opinion of the Union, when gates, subways or elevated tracks are required for the protection of the public at the intersection of tracks and highways, the cost of the same should be borne by the railway companies exclusively; and, further, that no level crossings should be permitted to remain in closely populated districts, and that the Executive urge this matter on the attention of the public authorities.



Golden Carol = 58704.

Yearling Shorthorn bull, at head of Hillhurst herd, property of Jas. A. Cochrane, Compton, Que., to be sold at Sherbrooke, Que., Sept. 7th. See Gossip, page 1384.

Western Crop Estimates Modified.

Intelligent agricultural opinion in the Canadian West has been protesting against the dissemination of exaggerated predictions of crop yield, calculated to bear prices and thus adversely affect the farmers' interests. Recent forecasts place the average yield at slightly under twenty bushels per acre, thus considerably discounting the estimate of 100,000,000 bushels ventured by Premier Roblin, of Manitoba. The Northwest Grain-dealers' Association, in their first circular this season, place the average wheat yield at 19.4 bushels, and cast up an aggregate of a little better than 77,000,000 bushels. Oats they estimate at 41.2 bushels per acre, multiplied to a total of 75,725,600. Of barley they count on 16,980,600 bushels, and of flax, 690,184 bushels.

The Winnipeg Branch of the Bank of Commerce places the total wheat yield at 91,813,900 bushels; oats, 80,854,680 bushels, and barley 17,735,790 bushels.

Harvest conditions have been excellent, and cutting has proceeded rapidly. Hot weather has caused considerable shrinkage of the wheat, but still the crop is splendid. To garner it some 12,000 or 13,000 harvesters have left Ontario and the Maritime Provinces, up to the end of last week, with another excursion this week, details concerning which are not to hand at date of writing. The draft is making a heavy drain of the repeatedly-reduced brawn of Eastern Canada, but the annual migration has its advantages, not the least of which is that the migrants are finding opportunity in our own country rather than abroad. At any rate we must make the best of it, pardonably trusting to participate in the national prosperity that will flow from the magnificent harvest they are helping to reap.

Co-operative Fruit Associations Organize

A large and representative meeting of the various co-operative fruit-growers' associations of Ontario was held in Toronto on August 14th, and a Provincial organization was formed. The meeting was called as a result of considerable correspondence on the need for such an organization. The associations represented at the meeting were those of Forest, Chatham, Simcoe, Oakville, St. Catharines, Parkhill, Oshawa, Newcastle, Trenton, Meaford and Walkerton; from each of these one or more representatives were present. Several other associations sent word they would give their support to the movement contemplated by the meeting.

The name of the newly-formed organization is to be "The Ontario Co-operative Fruit-growers' Association." The following officers were elected: President, A. E. Sherrington, Walkerton; First Vice-President, D. Johnson, Forest; Second Vice-President, W. H. Dempsey, Trenton; Third Vice-President, Robt. Thompson, St. Catharines, and Secretary-Treasurer, A. B. Cutting, 507 Manning Chambers, Toronto.

The object of the association is of a wholly commercial nature, and is designed to obtain reliable information with regard to the fruit crop throughout Canada, the United States and Europe. It will assist the various local associations to market their fruit to the best possible advantage, by bringing them into close touch with each other, and with the leading buyers, and by disseminating reliable information regarding fruit crops and sales. It will aid the local associations to procure satisfactory accommodation for the storage and shipping of their fruit.

The provincial association will take steps to bring about more uniform grades in the pack of the fruit of the Province. Already the Fruit Division at Ottawa has been asked to provide that the local co-operative associations be specially inspected and specially protected. It has been requested that a fruit inspector call at intervals throughout the packing season at the various co-operative fruit houses, so as to guarantee a high standard in the pack of the association. The Fruit Division has been petitioned also to hold meetings in the various co-operative localities, to demonstrate the best and most approved methods of packing fruit.

Reports gathered from the representatives present at the meeting were, generally speaking, of an encouraging nature. While the apple crop is regarded as a good one, a resolution was unanimously endorsed, calling upon the members and growers generally to exercise reserve in disposing of their stock. The opinion was freely expressed, that good prices will prevail for Canadian apples.

The membership in the provincial association shall be confined to the local co-operative fruit-growers' associations of Ontario, who have charge of the grading, packing and sale of the fruit of their members. Each affiliated association shall have the right to appoint one representative to act as a director of the provincial association. The membership fee shall be \$5.00 a year. In case it be required to meet further obligations of the provincial association, a very small levy per barrel will be made on the different affiliated associations.

At the close of the meeting a number of leading buyers, including some from Great Britain, met the growers and discussed matters pertaining to crop prospects and sales. The fact that an organization of this kind has been formed, and that leading buyers met its members at the initial meeting, is an indication of something doing in the direction of progress in the Canadian fruit industry.

Nova Scotia Crops.

In its summer crop bulletin the Nova Scotia Department of Agriculture summarizes as follows the returns of something over a hundred reports of correspondents in the most important agricultural districts of the Province:

The fall of 1905 was unusually dry. This was succeeded by an open winter, and by a rather slow, cold spring. As a result of all these conditions, the crop returns are extremely variable. For the most part, wherever the soil was in fairly good condition and the plants healthy and vigorous, the reports are favorable. But where fields have been neglected for a number of years, the grass roots especially did not seem to have the vitality to withstand the conditions, and, as a result, reports are not so favorable. Seldom have we experienced such a backward spring, as a consequence of which little seeding was done until June, and in many sections fields were not seeded until the end of that month. Following the wet month of May, June brought in very dry weather, and it looked, for a time, as if crops would generally prove a failure. However, during the latter part of June and the month of July, we have had lots of rain and heat, and the growth has been unprecedented. At present opinions as to crops differ considerably, but it would appear as if the hay crop for the whole Province may be estimated at about 85 per cent. Oats and other grains will be about a 90-per-cent. crop. Roots will be fully up to average. In regard to fruit, opinions too are variable; but it is generally anticipated that the crop will be above the average. Every correspondent reports the season to be from ten days to three weeks late.

The King's Horses at Toronto.

The coming of the King's horses, and those of Lord Rothschild, to Canada, for exhibition at the Canadian National Exhibition, has created considerable stir among horse-owners, breeders, etc., all over the country. As a result, the owners and breeders of different types are on their mettle, for these horses are both magnificently majestic and substantially massive. There are ten of these horses, all Shires, five belonging to His Majesty, and the other five to Lord Rothschild. They include two stallions, one Girton Charmer, the champion of all England; and the other, Premvictor, has won seven firsts, three championships, two reserves, and a number of other prizes. In short, these two majestic animals are, undoubtedly, grand champions of champions. There is also a magnificent mare with filly foal, one of Baron Rothschild's, that has never been beaten in the showing, and is accounted the best bred and purest type of her class. An extra beautiful filly is Tacsonia, by the King's stallion, Calwich Blend. She has never been beaten wherever shown, and is really entitled to be considered a Queen of the Shires. There are two yearlings, quite as big as any two-year-olds of any species of horses, and two grandly-built geldings. In all, these horses are supposed to represent a value of twenty thousand pounds sterling.

The Crops in Quebec.

The July report on the condition of the crops in the Province of Quebec, issued by the Provincial Department of Agriculture, states that, according to information received from different counties, the average crop, in the various branches of farming carried on in the Province, will probably fall short of the average of past years. Lack of snow in the past winter, leaving the fields and pastures bare, has had a considerable effect on this branch of cultivation; the prolonged period of cold weather in the spring in turn delayed sowing operations, while the unusual dryness of the summer explains the probable diminution in the returns of farming produce.

According to figures of the Quebec Observatory, the total rainfall for the months of June and July was 4.54 inches, as compared with 8.07 inches, which is given as the average for the past forty years. In July the rainfall was only 1.74 inches, the average for the previous forty years being 4.25.

Formal Acceptance of Rittenhouse Gift.

On August 14th, in Victoria Hall, near Vineland, Ont., Hon. Nelson Monteith, Minister of Agriculture for Ontario, formally accepted the land donated by M. P. Rittenhouse, of Chicago, for the purpose of an experimental fruit farm. Several thousand people were present from all parts of the district, also President G. C. Creelman, of the Ontario Agricultural College; E. A. Lancaster, M.P., Lincoln; E. D. Smith, M.P., Wentworth, and Dr. Jessop, M.P.P., Lincoln, and G. A. Putnam, Superintendent Farmers' Institutes for Ontario. County Councillor D. H. Moyer was chairman. In accepting the gift, Mr. Monteith spoke of Mr. Rittenhouse as a man who had accepted the responsibility that wealth cast upon him, and said he knew of no more shining example of a man considering the interests of his fellow men. His good example was already bearing fruit in Canada.

Reports last week stated that the tomato crop in the Niagara district was being seriously threatened by drought.

Wool and Wool Prices in Britain.

P. B. MacNamara, Canadian Commercial Agent in Manchester, Eng., writing under date of July 15th, spoke as follows of the wool situation:

At no time in recent years has the price of raw wool reached so high a level as it commands to-day in England, and every indication points to a maintenance of high prices. Three years ago the price ranged from 6½d. to 8½d., but at a sale recently held at the Salisbury wool fair 105,000 Down fleeces were offered, and there was a brisk demand. The prices realized averaged 1½d. per lb. above last year's quotations. Washed lots sold at 14½d. and 15½d.; unwashed lots realized 11½d. Local wool, however, commands higher prices than the imported, and the price of latter is governed by its grading and the demand existing. The wool market reports point somewhat to the fact that buying is circumscribed to the most actual needs, the high prices deterring buying for storage. The European markets showed a decline, but most of the wool offering was withdrawn when prices fell off. Spinners and manufacturers claim that the present prices are more than the trade can carry.

IMPORTS OF RAW WOOL INTO GREAT BRITAIN.

From the Trade and Navigation Returns, I have obtained the following figures, showing the quantity and value for periods stated:

	1903.	1904.	1905.
Pounds.....	599,500,932	561,677,833	615,708,727
Value.....	£20,622,523	£20,366,030	£23,821,350

Fair Dates for 1906.

Cobourg Horse Show	August 21-28
Canadian National, Toronto.....	Aug. 27-Sept. 6
St. John, N. B.	Sept. 1-7
Winchester, Ont.	Sept. 6-7
Canada Central, Ottawa	Sept. 7-15
Western Fair, London	Sept. 7-15
Michigan West, Grand Rapids.....	Sept. 10-14
Sussex, N. B.	Sept. 10-14
New York State, Syracuse	Sept. 10-15
Guelph Central	Sept. 11-13
Chatham, N. B.	Sept. 14-21
Arthur	Sept. 18-19
Mount Forest	Sept. 18-19
Peel Co., Brampton	Sept. 20-21
East Parry Sound, Burk's Falls.....	Sept. 20-21
South Ontario, Oshawa	Sept. 25-26
Dominion Exhibition, Halifax, N. S.....	Sept. 20-Oct. 5
Prince Edward Island Agr. and Industrial Exhibition	Oct. 8-12
Provincial Exhibition, New Westminster, B.C.....	Oct. 2-6
American Royal, Kansas City, Mo.	Oct. 6-13
International, Chicago	Dec. 1-8
Ontario Winter Fair, Guelph	Dec. 10-15
Caledonia	Oct. 11-12

Managers of fairs whose dates do not appear on our list will confer a favor on our readers by sending in their dates.

Western Fair Dairy Prizes.

A meeting of the dairy committee of the Western Fair Board was held Saturday afternoon. Special interest seems to center in this department this year. There are several reasons why this should be the case. Cheese has been a very high price all this season, and the farmers generally are consequently greatly interested in what is to them one of the best sources of income. The butter exhibit is always one of interest to farmers' wives and daughters, and with the prizes of this year will, without doubt, bring out a large exhibit. The buttermaking competition will be carried on daily as usual, for which there are already several entries. Perhaps the greatest reason of interest in this department this year is the fact that there has been given to it two beautiful medals, which have been kindly donated by Messrs. Ryrie Bros., of Diamond Hall, Toronto. It was decided by the committee on Saturday that one of these medals be given to the exhibitor who is the winner of the most prize money in the cheese department in any or all of the first four sections. The other medal will be given to the exhibitor winning the most money in sections 4 and 5 of the butter department. The giving of these handsome medals, in addition to the prizes already promised, should bring out one of the largest and best exhibits of cheese and butter ever shown here. Entries will be received up to Thursday, September 6th. Programmes and all information given on application at the Secretary's office, Richmond St. north, London, or mailed on application to A. M. Hunt, Secretary and Manager.

Take in the Ottawa Fair.

The Central Canada Exhibition, Ottawa, will be held this year September 7th to 15th. The housing accommodation has been increased, and in prizes it is claimed that the largest list of specials ever offered by this or any other exhibition will be set up for competition. The management of this show is always the soul of courtesy, and the exhibition is a delightful and instructive place to visit, apart from the fact that it is located at the Dominion capital, a city which every young Canadian ought to see. Half rates will obtain on the railroads, and we bespeak for this Fair the generous attendance its excellence deserves.

Notes from Ireland.

IRISH HARVEST PROSPECTS.

Irish crop prospects are bright. As I write, I have before me a cheering series of reports by practical farmers, and thoroughly representative of the country. The picture which these reports present is far more encouraging than could have been reasonably anticipated some months ago. There have been other years, no doubt, in which some crops may have been more favorably spoken of, but, taken all in all, there has seldom been such a uniformly satisfactory promise. Of no crop is the general condition represented as materially under the average, while the great majority are described as well up to, and, in many cases, well above. The season, from a climatic standpoint, has been a somewhat peculiar one. The spring was unseasonably cold, and, consequently, backward until June. With the advent of genial weather, then the appearance of the country underwent a marked improvement, which has continued right along. Of meadows and pastures, which occupy the great bulk of our land, most pleasing reports are given; the hay being saved in good condition, and proving, in the majority of cases, heavy and nutritive. Pastures also have been well covered, and grazing stock have been amply supplied. An amount of hay has still to be cut, and if fine weather prevails for the work, a good return is expected for winter use. Among the cereals oats have, in some of the northern districts, been retarded by the absence of heat in spring, and are, consequently, not filling well, but in other parts of the country the crop is bulking most satisfactorily, and our staple grain crop promises a full average yield; wheat and barley, which are not so extensively grown as oats, are both expected to turn out better than last year. Potatoes have been comparatively free from blight and disease, and there are indications of luxuriant growth and abundant yield of this most important crop. Turnips are the most variable of all, and appear to be better in the South than the North, but there are very few unsatisfactory reports of the mangel crop, which, as a rule, looks healthy; and of flax, which is principally confined to the northern counties, the reports leave little cause for complaint.

COMPULSORY SHEEP DIPPING.

During the past few years many public men interested in the sheep industry have pleaded for the adoption of a measure in Ireland under which every farmer would be compelled to dip his sheep. It would seem that the day is not far distant when the desire will become realized. Though coercive measures, as a rule, do not appeal to the average Irish mind, still there are some matters in which compulsion is advisable, and, indeed, in which resort to it is fraught with advantages which all competent to judge without bias are bound to admit. It must not be supposed that all Irish flockmasters neglect the washing of their sheep, for such is by no means the case, but the difficulty is that quite a number neglect to do so, and the inevitable consequence is that sheep scab and other parasitic troubles continue prevalent throughout the country, and this, notwithstanding the frequent pleas that these diseases could be exterminated (as they have been in Australia and elsewhere) by approved systems of dipping.

The story of how the compulsory measures have now been brought into operation is soon told. For a long time past the authorities in England and Scotland have been expending large sums of money, framing elaborate orders, and in other ways making a determined effort to get rid of that troublesome ovine pest, sheep scab, on their side of the Channel. This year they came to the conclusion that all their endeavors would fail to be completely successful, unless a similar attempt was made in Ireland, for, as they rightly argued, it was useless trying to free England from the disease so long as there was a constant import traffic of Irish sheep, whose immunity from infection was in no way guaranteed. Representations to this effect were accordingly made by the English Board of Agriculture to the Irish Department of Agriculture, and the latter were informed that after November 1st, 1906, no Irish sheep would be admitted to English ports, unless accompanied by certificates that they had been properly dipped within a certain period before the date of shipment. This, of course, meant one of two alternatives: (1) Universal dipping, or (2) partial paralysis of our pretty extensive sheep trade with England. These facts were brought before the various local county councils by the Department of Agriculture, in the form of an order for compulsory dipping, which the former bodies, having the statutory powers, were requested to put in operation. Explanations were necessary, however, and officials of the Veterinary Branch have been busy travelling about the country, meeting the local councils, and making the details clear to them. It is most satisfactory to find that in the vast majority of cases the order is to be put in force, and that schemes framed according to local conditions have been drawn up. These vary, of course, in different parts of the country, but they all tend in the one direction, and their effect is certain to be productive of immense benefit to our sheep industry, which is, at present, probably the most remunerative ranch of Irish stock-breeding.

IRISH RAILWAYS ON TRIAL.

Some months ago I wrote in "The Farmer's Advocate" regarding the very grave dissatisfaction that existed in this country with the railway authorities, on account of what can only be described as the unsym-

pathetic attitude of the latter towards the development of the agricultural resources of the Island. Indeed, so acute has the question become that, as I formerly pointed out, there are some among us who contend that until an improved state of affairs is brought about with regard to railway rates, etc., it is a hopeless task to try to revive and develop to the fullest extent the industries of the country. Instead of leading and furthering in every way the advancement of agriculture—as their own business instincts alone might have induced them to do—the railway companies, as a rule, in Ireland have, it is to be feared, played quite a different role, and while our foreign competitors have had the advantage of rapid, cheap and safe transit, we have been greatly handicapped by unreasonably, and, indeed, fatally high rates, and not always the most expeditious railway facilities. The matter has forced itself into special prominence, which may be taken as indicative of its vital importance to the country's best interests. Quite recently an influential deputation waited on a conference of Irish railway managers, and discussed the various details of the matters in dispute, but, apparently without any definite result. Hardly had the echoes of the meeting died away, however, than the announcement came last week of the appointment of Vice-regal Commission to enquire into the working of Irish railways generally. The terms of reference are comprehensive, and indicate that the inquiry will be both wide and practical in its scope. They read as follows:

"To inquire into the present working of railways in Ireland, including light railways, and to report how far they afford adequate facilities for the cheap and rapid transit of goods and passengers within the Island and to Great Britain; what causes have retarded the expansion of traffic upon the Irish lines, and their full utilization for the development of the agricultural and industrial resources of the country; and, generally, by what methods the economical, efficient and harmonious working of the Irish railways can best be secured."

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P. E. Island.

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The dairy business is coming up again. Two years of good prices are encouraging many who were getting careless about milking stock to take more interest in them. The cheese and butter factories, as a conse-

quence, are doing a larger business than during the last two years.

We enjoyed a very pleasant call from a representative of the old-reliable "Farmer's Advocate" a short time ago, and were pleased to know that he was successful in placing that excellent journal in many farm homes. We feel safe in saying that wherever "The Farmer's Advocate" is taken and carefully read there will follow an improvement in agricultural methods. Too many of our farmers are yet without an agricultural paper, and so are missing much that would be helpful to them in their business. W. S.

Awake to the Chances at Home.

Editor "The Farmer's Advocate":

As the son of a subscriber, I thought I would write a few lines, which you may publish if you see fit. As your paper is open to practical or beneficial suggestions, I might say the encouragement of correspondence between young farmers' sons or daughters would be beneficial. Correspondence carried on in a respectful way would, I think, increase the number of subscribers among the young farmers, as well as others, and be of an educational as well as a practical benefit.

Many farmers' sons in Ontario are leaving fair chances and going West to look for better, which some may find, and many may not. Many young men abandon the farm for which the father has worked so long, and which has good buildings and home, for a few acres on a wide and dreary prairie where there are neither, and there spend a good share of their lives dragging out an existence all alone. When they get tired of single life, they pick up all the farmers' daughters who will go West, and there live a life which, to a certain extent, is filled with privation. This may not be in every case, but it is in a good many. Farmers' daughters do not yet have to go West to find bachelors who are well off, for in some of the middle and western counties bachelors are so thick that in one place the school is closed. No doubt if correspondence was encouraged it would be to their benefit and comfort, as well as that of others.

Then, again, when the farmers' sons go West it leaves the farm without sufficient help, and the only road out is to pay big wages to hired help, or else not work all the farm. It seems to me that farmers could well afford to provide some inducements to help their sons at home, and thus work all the farm in the proper way, and to best advantage; for when they are given an interest in the work they will willingly do more than a hired man, and this also saves the breaking up of the home. There are many farms in Ontario that could be worked to better advantage, and if one of the sons who has worked at home wished to farm for himself, his father might give him a start, and the rest would work in all right. Here correspondence is a benefit; for when one sees how others are making a success it encourages him to put forth greater effort.

Farmers' daughters also might be benefited by their correspondence, or with farmers' sons. This is the day of progress, so speak up and let people know you are living. YOUNG FARMER. Quebec.

Seed Selection Pays.

(Ottawa correspondence.)

Many farmers of Eastern Ontario are giving considerable attention to experimental plots in hand selection of seed, and a large majority of them have achieved good results. George Boyce, of Nepean, has such a plot in four acres of evenly-lying land. He has been at the work for several seasons, and, as a result, has nearly 60 acres from improved seed. He has made a specialty of Banner oats. His oat fields this year gave splendid promise of banner crops.

Working in Red Fife wheat in a similar way, Robert Patterson, of Northcote, near Renfrew, has achieved good results. He has a breeding plot of $\frac{1}{2}$ acre, and an improved seed plot of 8 acres. Last year his field of 10 acres, sown with improved seed, yielded 25 bushels per acre. He had, according to the best of authority, sufficient offers at \$1.50 per bushel for seed to sell the whole crop. He refused to part with it for this purpose, in spite of the high price, because he had failed to treat the crop for smut, and thought it might be the means of propagating the disease. His plots this year have given every appearance of good results.

One of the finest breeding plots visited this year by the official of the Seed Division is in the vicinity of Maxville, on the farm of Robert McKay. This is the fifth year Mr. McKay has been selecting Red Fife wheat, and his plot showed the results of careful attention. The heads a short time ago were well filled with plump grain of the highest quality. The mean length of heads also was above the average.

Among others of this part of the Province engaged in the work are: D. G. Thompson, Cumming's Bridge, experimenting with Compton's Early corn; Mr. Sissons, of Dunrobin, experimenting with oats. Last year Mr. Sissons' improved seed plot of two acres yielded within a very small fraction of 70 bushels to the acre.

Western Crop Estimates Modified.

Intelligent agricultural opinion in the Canadian West has been protesting against the dissemination of exaggerated predictions of crop yield, calculated to bear prices and thus adversely affect the farmers' interests. Recent forecasts place the average yield at slightly under twenty bushels per acre, thus considerably discounting the estimate of 100,000,000 bushels ventured by Premier Roblin, of Manitoba. The Northwest Grain-dealers' Association, in their first circular this season, place the average wheat yield at 19.4 bushels, and cast up an aggregate of a little better than 77,000,000 bushels. Oats they estimate at 41.2 bushels per acre, multiplied to a total of 75,725,600. Of barley they count on 16,980,600 bushels, and of flax, 690,184 bushels.

The Winnipeg Branch of the Bank of Commerce places the total wheat yield at 91,813,900 bushels; oats, 80,854,680 bushels, and barley 17,735,790 bushels.

Harvest conditions have been excellent, and cutting has proceeded rapidly. Hot weather has caused considerable shrinkage of the wheat, but still the crop is splendid. To garner it some 12,000 or 13,000 harvesters have left Ontario and the Maritime Provinces, up to the end of last week, with another excursion this week, details concerning which are not to hand at date of writing. The draft is making a heavy drain of the repeatedly-reduced brawn of Eastern Canada, but the annual migration has its advantages, not the least of which is that the migrants are finding opportunity in our own country rather than abroad. At any rate we must make the best of it, pardonably trusting to participate in the national prosperity that will flow from the magnificent harvest they are helping to reap.

Co-operative Fruit Associations Organize

A large and representative meeting of the various co-operative fruit-growers' associations of Ontario was held in Toronto on August 14th, and a Provincial organization was formed. The meeting was called as a result of considerable correspondence on the need for such an organization. The associations represented at the meeting were those of Forest, Chatham, Simcoe, Oakville, St. Catharines, Parkhill, Oshawa, Newcastle, Trenton, Meaford and Walkerton; from each of these one or more representatives were present. Several other associations sent word they would give their support to the movement contemplated by the meeting.

The name of the newly-formed organization is to be "The Ontario Co-operative Fruit-growers' Association." The following officers were elected: President, A. E. Sherrington, Walkerton; First Vice-President, D. Johnson, Forest; Second Vice-President, W. H. Dempsey, Trenton; Third Vice-President, Robt. Thompson, St. Catharines, and Secretary-Treasurer, A. B. Cutting, 507 Manning Chambers, Toronto.

The object of the association is of a wholly commercial nature, and is designed to obtain reliable information with regard to the fruit crop throughout Canada, the United States and Europe. It will assist the various local associations to market their fruit to the best possible advantage, by bringing them into close touch with each other, and with the leading buyers, and by disseminating reliable information regarding fruit crops and sales. It will aid the local associations to procure satisfactory accommodation for the storage and shipping of their fruit.

The provincial association will take steps to bring about more uniform grades in the pack of the fruit of the Province. Already the Fruit Division at Ottawa has been asked to provide that the local co-operative associations be specially inspected and specially protected. It has been requested that a fruit inspector call at intervals throughout the packing season at the various co-operative fruit houses, so as to guarantee a high standard in the pack of the association. The Fruit Division has been petitioned also to hold meetings in the various co-operative localities, to demonstrate the best and most approved methods of packing fruit.

Reports gathered from the representatives present at the meeting were, generally speaking, of an encouraging nature. While the apple crop is regarded as a good one, a resolution was unanimously endorsed, calling upon the members and growers generally to exercise reserve in disposing of their stock. The opinion was freely expressed, that good prices will prevail for Canadian apples.

The membership in the provincial association shall be confined to the local co-operative fruit-growers' associations of Ontario, who have charge of the grading, packing and sale of the fruit of their members. Each affiliated association shall have the right to appoint one representative to act as a director of the provincial association. The membership fee shall be \$5.00 a year. In case it be required to meet further obligations of the provincial association, a very small levy per barrel will be made on the different affiliated associations.

At the close of the meeting a number of leading buyers, including some from Great Britain, met the growers and discussed matters pertaining to crop prospects and sales. The fact that an organization of this kind has been formed, and that leading buyers met its members at the initial meeting, is an indication of something doing in the direction of progress in the Canadian fruit industry.

Nova Scotia Crops.

In its summer crop bulletin the Nova Scotia Department of Agriculture summarizes as follows the returns of something over a hundred reports of correspondents in the most important agricultural districts of the Province:

The fall of 1905 was unusually dry. This was succeeded by an open winter, and by a rather slow, cold spring. As a result of all these conditions, the crop returns are extremely variable. For the most part, wherever the soil was in fairly good condition and the plants healthy and vigorous, the reports are favorable. But where fields have been neglected for a number of years, the grass roots especially did not seem to have the vitality to withstand the conditions, and, as a result, reports are not so favorable. Seldom have we experienced such a backward spring, as a consequence of which little seeding was done until June, and in many sections fields were not seeded until the end of that month. Following the wet month of May, June brought in very dry weather, and it looked, for a time, as if crops would generally prove a failure. However, during the latter part of June and the month of July, we have had lots of rain and heat, and the growth has been unprecedented. At present opinions as to crops differ considerably, but it would appear as if the hay crop for the whole Province may be estimated at about 85 per cent. Oats and other grains will be about a 90-per-cent. crop. Roots will be fully up to average. In regard to fruit, opinions too are variable; but it is generally anticipated that the crop will be above the average. Every correspondent reports the season to be from ten days to three weeks late.

The King's Horses at Toronto.

The coming of the King's horses, and those of Lord Rothschild, to Canada, for exhibition at the Canadian National Exhibition, has created considerable stir among horse-owners, breeders, etc., all over the country. As a result, the owners and breeders of different types are on their mettle, for these horses are both magnificently majestic and substantially massive. There are ten of these horses, all Shires, five belonging to His Majesty, and the other five to Lord Rothschild. They include two stallions, one Girton Charmer, the champion of all England; and the other, Premvictor, has won seven firsts, three championships, two reserves, and a number of other prizes. In short, these two majestic animals are, undoubtedly, grand champions of champions. There is also a magnificent mare with filly foal, one of Baron Rothschild's, that has never been beaten in the showing, and is accounted the best bred and purest type of her class. An extra beautiful filly is Tacsonia, by the King's stallion, Calwich Blend. She has never been beaten wherever shown, and is really entitled to be considered a Queen of the Shires. There are two yearlings, quite as big as any two-year-olds of any species of horses, and two grandly-built geldings. In all, these horses are supposed to represent a value of twenty thousand pounds sterling.

The Crops in Quebec.

The July report on the condition of the crops in the Province of Quebec, issued by the Provincial Department of Agriculture, states that, according to information received from different counties, the average crop, in the various branches of farming carried on in the Province, will probably fall short of the average of past years. Lack of snow in the past winter, leaving the fields and pastures bare, has had a considerable effect on this branch of cultivation; the prolonged period of cold weather in the spring in turn delayed sowing operations, while the unusual dryness of the summer explains the probable diminution in the returns of farming produce.

According to figures of the Quebec Observatory, the total rainfall for the months of June and July was 4.54 inches, as compared with 8.07 inches, which is given as the average for the past forty years. In July the rainfall was only 1.74 inches, the average for the previous forty years being 4.25.

Formal Acceptance of Rittenhouse Gift.

On August 14th, in Victoria Hall, near Vineland, Ont., Hon. Nelson Monteith, Minister of Agriculture for Ontario, formally accepted the land donated by M. F. Rittenhouse, of Chicago, for the purpose of an experimental fruit farm. Several thousand people were present from all parts of the district, also President G. C. Creelman, of the Ontario Agricultural College; E. A. Lancaster, M.P., Lincoln; E. D. Smith, M.P., Wentworth, and Dr. Jessop, M.P.P., Lincoln, and G. A. Putnam, Superintendent Farmers' Institutes for Ontario. County Councillor D. H. Moyer was chairman. In accepting the gift, Mr. Monteith spoke of Mr. Rittenhouse as a man who had accepted the responsibility that wealth cast upon him, and said he knew of no more shining example of a man considering the interests of his fellow men. His good example was already bearing fruit in Canada.

Reports last week stated that the tomato crop in the Niagara district was being seriously threatened by drouth.

Wool and Wool Prices in Britain.

P. B. MacNamara, Canadian Commercial Agent in Manchester, Eng., writing under date of July 15th, spoke as follows of the wool situation:

At no time in recent years has the price of raw wool reached so high a level as it commands to-day in England, and every indication points to a maintenance of high prices. Three years ago the price ranged from 6½d. to 8½d., but at a sale recently held at the Salisbury wool fair 105,000 Down fleeces were offered, and there was a brisk demand. The prices realized averaged 1½d. per lb. above last year's quotations. Washed lots sold at 14½d. and 15½d.; unwashed lots realized 11½d. Local wool, however, commands higher prices than the imported, and the price of latter is governed by its grading and the demand existing. The wool market reports point somewhat to the fact that buying is circumscribed to the most actual needs, the high prices deterring buying for storage. The European markets showed a decline, but most of the wool offering was withdrawn when prices fell off. Spinners and manufacturers claim that the present prices are more than the trade can carry.

IMPORTS OF RAW WOOL INTO GREAT BRITAIN.

From the Trade and Navigation Returns, I have obtained the following figures, showing the quantity and value for periods stated:

	1903.	1904.	1905.
Pounds	599,500,932	561,677,833	615,708,727
Value.....	£20,622,523	£20,366,030	£23,821,350

Fair Dates for 1906.

Cobourg Horse Show	August 21-23
Canadian National, Toronto.....	Aug. 27-Sept. 6
St. John, N. B.	Sept. 1-7
Winchester, Ont.....	Sept. 6-7
Canada Central, Ottawa	Sept. 7-15
Western Fair, London	Sept. 7-15
Michigan West, Grand Rapids.....	Sept. 10-14
Sussex, N. B.	Sept. 10-14
New York State, Syracuse	Sept. 10-15
Guelph Central	Sept. 11-13
Chatham, N. B.	Sept. 14-21
Arthur	Sept. 18-19
Mount Forest	Sept. 18-19
Peel Co., Brampton	Sept. 20-21
East Parry Sound, Burk's Falls.....	Sept. 20-21
South Ontario, Oshawa	Sept. 25-26
Dominion Exhibition, Halifax, N. S.....	Sept. 20-Oct. 5
Prince Edward Island Agr. and Industrial Exhibition	Oct. 8-12
Provincial Exhibition, New Westminster, B.C.....	Oct. 2-8
American Royal, Kansas City, Mo.	Oct. 6-13
International, Chicago	Dec. 1-8
Ontario Winter Fair, Guelph	Dec. 10-15
Caledonia	Oct. 11-12

Managers of fairs whose dates do not appear on our list will confer a favor on our readers by sending in their dates.

Western Fair Dairy Prizes.

A meeting of the dairy committee of the Western Fair Board was held Saturday afternoon. Special interest seems to center in this department this year. There are several reasons why this should be the case. Cheese has been a very high price all this season, and the farmers generally are consequently greatly interested in what is to them one of the best sources of income. The butter exhibit is always one of interest to farmers' wives and daughters, and with the prizes of this year will, without doubt, bring out a large exhibit. The buttermaking competition will be carried on daily as usual, for which there are already several entries. Perhaps the greatest reason of interest in this department this year is the fact that there has been given to it two beautiful medals, which have been kindly donated by Messrs. Ryrie Bros., of Diamond Hall, Toronto. It was decided by the committee on Saturday that one of these medals be given to the exhibitor who is the winner of the most prize money in the cheese department in any or all of the first four sections. The other medal will be given to the exhibitor winning the most money in sections 4 and 5 of the butter department. The giving of these handsome medals, in addition to the prizes already promised, should bring out one of the largest and best exhibits of cheese and butter ever shown here. Entries will be received up to Thursday, September 6th. Programmes and all information given on application at the Secretary's office, Richmond St. north, London, or mailed on application to A. M. Hunt, Secretary and Manager.

Take in the Ottawa Fair.

The Central Canada Exhibition, Ottawa, will be held this year September 7th to 15th. The housing accommodation has been increased, and in prizes it is claimed that the largest list of specials ever offered by this or any other exhibition will be set up for competition. The management of this show is always the soul of courtesy, and the exhibition is a delightful and instructive place to visit, apart from the fact that it is located at the Dominion capital, a city which every young Canadian ought to see. Half rates will obtain on the railroads, and we bespeak for this Fair the generous attendance its excellence deserves.

Notes from Ireland.

IRISH HARVEST PROSPECTS.

Irish crop prospects are bright. As I write, I have before me a cheering series of reports by practical farmers, and thoroughly representative of the country. The picture which these reports present is far more encouraging than could have been reasonably anticipated some months ago. There have been other years, no doubt, in which some crops may have been more favorably spoken of, but, taken all in all, there has seldom been such a uniformly satisfactory promise. Of no crop is the general condition represented as materially under the average, while the great majority are described as well up to, and, in many cases, well above. The season, from a climatic standpoint, has been a somewhat peculiar one. The spring was unseasonably cold, and, consequently, backward until June. With the advent of genial weather, then the appearance of the country underwent a marked improvement, which has continued right along. Of meadows and pastures, which occupy the great bulk of our land, most pleasing reports are given; the hay being saved in good condition, and proving, in the majority of cases, heavy and nutritive. Pastures also have been well covered, and grazing stock have been amply supplied. An amount of hay has still to be cut, and if fine weather prevails for the work, a good return is expected for winter use. Among the cereals oats have, in some of the northern districts, been retarded by the absence of heat in spring, and are, consequently, not filling well, but in other parts of the country the crop is bulking most satisfactorily, and our staple grain crop promises a full average yield; wheat and barley, which are not so extensively grown as oats, are both expected to turn out better than last year. Potatoes have been comparatively free from blight and disease, and there are indications of luxuriant growth and abundant yield of this most important crop. Turnips are the most variable of all, and appear to be better in the South than the North, but there are very few unsatisfactory reports of the mangel crop, which, as a rule, looks healthy; and of flax, which is principally confined to the northern counties, the reports leave little cause for complaint.

COMPULSORY SHEEP DIPPING.

During the past few years many public men interested in the sheep industry have pleaded for the adoption of a measure in Ireland under which every farmer would be compelled to dip his sheep. It would seem that the day is not far distant when the desire will become realized. Though coercive measures, as a rule, do not appeal to the average Irish mind, still there are some matters in which compulsion is advisable, and, indeed, in which resort to it is fraught with advantages which all competent to judge without bias are bound to admit. It must not be supposed that all Irish flockmasters neglect the washing of their sheep, for such is by no means the case, but the difficulty is that quite a number neglect to do so, and the inevitable consequence is that sheep scab and other parasitic troubles continue prevalent throughout the country, and this, notwithstanding the frequent pleas that these diseases could be exterminated (as they have been in Australia and elsewhere) by approved systems of dipping.

The story of how the compulsory measures have now been brought into operation is soon told. For a long time past the authorities in England and Scotland have been expending large sums of money, framing elaborate orders, and in other ways making a determined effort to get rid of that troublesome ovine pest, sheep scab, on their side of the Channel. This year they came to the conclusion that all their endeavors would fail to be completely successful, unless a similar attempt was made in Ireland, for, as they rightly argued, it was useless trying to free England from the disease so long as there was a constant import traffic of Irish sheep, whose immunity from infection was in no way guaranteed. Representations to this effect were accordingly made by the English Board of Agriculture to the Irish Department of Agriculture, and the latter were informed that after November 1st, 1906, no Irish sheep would be admitted to English ports, unless accompanied by certificates that they had been properly dipped within a certain period before the date of shipment. This, of course, meant one of two alternatives: (1) Universal dipping, or (2) partial paralysis of our pretty extensive sheep trade with England. These facts were brought before the various local county councils by the Department of Agriculture, in the form of an order for compulsory dipping, which the former bodies, having the statutory powers, were requested to put in operation. Explanations were necessary, however, and officials of the Veterinary Branch have been busy travelling about the country, meeting the local councils, and making the details clear to them. It is most satisfactory to find that in the vast majority of cases the order is to be put in force, and that schemes framed according to local conditions have been drawn up. These vary, of course, in different parts of the country, but they all tend in the one direction, and their effect is certain to be productive of immense benefit to our sheep industry, which is, at present, probably the most remunerative branch of Irish stock-breeding.

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The dairy business is coming up again. Two years of good prices are encouraging many who were getting careless about milking stock to take more interest in them. The cheese and butter factories, as a conse-

quence, are doing a larger business than during the last two years.

We enjoyed a very pleasant call from a representative of the old-reliable "Farmer's Advocate" a short time ago, and were pleased to know that he was successful in placing that excellent journal in many farm homes. We feel safe in saying that wherever "The Farmer's Advocate" is taken and carefully read there will follow an improvement in agricultural methods. Too many of our farmers are yet without an agricultural paper, and so are missing much that would be helpful to them in their business. W. S.

Awake to the Chances at Home.

Editor "The Farmer's Advocate":

As the son of a subscriber, I thought I would write a few lines, which you may publish if you see fit. As your paper is open to practical or beneficial suggestions, I might say the encouragement of correspondence between young farmers' sons or daughters would be beneficial. Correspondence carried on in a respectful way would, I think, increase the number of subscribers among the young farmers, as well as others, and be of an educational as well as a practical benefit.

Many farmers' sons in Ontario are leaving fair chances and going West to look for better, which some may find, and many may not. Many young men abandon the farm for which the father has worked so long, and which has good buildings and home, for a few acres on a wide and dreary prairie where there are neither, and there spend a good share of their lives dragging out an existence all alone. When they get tired of single life, they pick up all the farmers' daughters who will go West, and there live a life which, to a certain extent, is filled with privation. This may not be in every case, but it is in a good many. Farmers' daughters do not yet have to go West to find bachelors who are well off, for in some of the middle and western counties bachelors are so thick that in one place the school is closed. No doubt if correspondence was encouraged it would be to their benefit and comfort, as well as that of others.

Then, again, when the farmers' sons go West it leaves the farm without sufficient help, and the only road out is to pay big wages to hired help, or else not work all the farm. It seems to me that farmers could well afford to provide some inducements to help their sons at home, and thus work all the farm in the proper way, and to best advantage; for when they are given an interest in the work they will willingly do more than a hired man, and this also saves the breaking up of the home. There are many farms in Ontario that could be worked to better advantage, and if one of the sons who has worked at home wished to farm for himself, his father might give him a start, and the rest would work in all right. Here correspondence is a benefit; for when one sees how others are making a success it encourages him to put forth greater effort.

Farmers' daughters also might be benefited by their correspondence, or with farmers' sons. This is the day of progress, so speak up and let people know you are living. YOUNG FARMER. Quebec.

Seed Selection Pays.

(Ottawa correspondence.)

Many farmers of Eastern Ontario are giving considerable attention to experimental plots in hand selection of seed, and a large majority of them have achieved good results. George Boyce, of Nepean, has such a plot in four acres of evenly-lying land. He has been at the work for several seasons, and, as a result, has nearly 60 acres from improved seed. He has made a specialty of Banner oats. His oat fields this year gave splendid promise of banner crops.

Working in Red Fife wheat in a similar way, Robert Patterson, of Northcote, near Renfrew, has achieved good results. He has a breeding plot of $\frac{1}{2}$ acre, and an improved seed plot of 8 acres. Last year his field of 10 acres, sown with improved seed, yielded 25 bushels per acre. He had, according to the best of authority, sufficient offers at \$1.50 per bushel for seed to sell the whole crop. He refused to part with it for this purpose, in spite of the high price, because he had failed to treat the crop for smut, and thought it might be the means of propagating the disease. His plots this year have given every appearance of good results.

One of the finest breeding plots visited this year by the official of the Seed Division is in the vicinity of Maxville, on the farm of Robert McKay. This is the fifth year Mr. McKay has been selecting Red Fife wheat, and his plot showed the results of careful attention. The heads a short time ago were well filled with plump grain of the highest quality. The mean length of heads also was above the average.

Among others of this part of the Province engaged in the work are: D. G. Thompson, Cumming's Bridge, experimenting with Compton's Early corn; Mr. Sissons, of Dunrobin, experimenting with oats. Last year Mr. Sissons' improved seed plot of two acres yielded within a very small fraction of 70 bushels to the acre.

POOR COPY

MARKETS.

Toronto.

LIVE STOCK.

Receipts of cattle were light, not more than half the number of a week ago. Trade in shippers is dull, owing to lack of space available on ocean steamers; but choice butchers' cattle, being scarce, were firmer at steady prices.

Exporters—Prices ranged from \$4.30 to \$4.95, the bulk selling at \$4.40 to \$4.65 per cwt. Export bulls sold at \$3.50 to \$4.25.

Butchers—Prime lots sold at \$4.40 to \$4.60; loads of good, \$4 to \$4.30; medium, \$3.50 to \$3.80; cows, \$2.50 to \$3.25.

Stockers and Feeders—Receipts light; trade dull, with a light demand for a few well-bred steers of good color. Prices ranged as follows: Best feeders, 900 to 1,850 lbs., \$3.75 to \$3.90; best feeders, 800 to 900 lbs., \$3.50 to \$3.75; good stockers, 600 to 800 lbs., \$3.25 to \$3.50; medium stockers, \$2.75 to \$3; common stockers, \$2 to \$2.25.

Milk Cows—Fair deliveries of milk cows and springers met a good market. Prices ranged from \$35 to \$64 each, one dealer buying nine springers at an average of \$51 each.

Veal Calves—Receipts moderate; market firm; prices steady at \$3 to \$6 per cwt., the bulk selling at \$4.50 to \$5.50. Prime new-milk-fed calves are worth \$6.50 per cwt.

Sheep and Lambs—Moderate receipts met a firm market, especially for export sheep. Export ewes sold at \$4.40 to \$4.60; bucks, \$3.50 to \$3.75 per cwt.; lambs sold at \$6 to \$6.85 per cwt., the bulk going at \$6.50.

Hogs—Although the runs have been light, prices are easier, some of the buyers having forsaken the market, or, at least, are taking a holiday. Prices are quoted as follows: \$7 per cwt., fed and watered, and \$7.25, off cars.

Horses—There is little to report concerning the horse market, as there are fewer sales reported last week than at any time during the year. More horses would have sold, as several buyers were on the market that went home disappointed. A few sales of work horses were made at unchanged prices.

COUNTRY PRODUCE.

Butter—Demand good, with only moderate supplies. Prices firm at: Creamery prints, 23c. to 24c.; creamery boxes, 22c. to 23c.; dairy pound rolls, 19c. to 20c.; tubs, 18c. to 19c.; bakers' tubs, 14c. to 15c.

Eggs—Receipts large. Market a little easier, although there is no quotable change, at 18c. to 19c. per dozen.

Potatoes—Prices are lower on account of heavy receipts, ranging from 55c. to 65c. per bushel for car lots, on track, at Toronto.

Cheese—Market steady at 12½c. to 13c. per lb., the latter for twins.

Poultry—Receipts moderate. Prices firm as follows: Spring chickens, dressed, 15c. to 17c. per lb.; ducks, dressed, 13c. to 16c. per lb.; old fowl, 11c. to 13c., dressed.

Hay—The market is firm at \$10 to \$10.50 for car lots of No. 1 timothy, on track, at Toronto; No. 2 at \$7.50 per ton.

Straw—Market quiet at \$5 to \$6 per ton for car lots, on track, at Toronto.

Beans—There is not much doing in beans, and prices are practically nominal, as they have been for some time; hand-picked, \$1.75 to \$1.80; prime, \$1.50 to \$1.60 per bushel.

Honey—Supplies light, prices steady at 10c. per lb. for strained, and \$1.75 to \$2 per dozen for combs.

BREADSTUFFS.

Grain—Wheat—Red and white winter, new, 70c. to 71c. Manitoba—No. 1 northern, 79c., offered at lake points; No. 2 northern, sellers at 76½c.

Corn—No. 2 yellow, 60c., on track, at Toronto.

Rye—New is quoted at 57c. to 58c.

Peas—Prices nominal at 82c. to 83c.

Barley—No. 2, nominal, at 48c.

Oats—No. 2 white quoted at 33c. to 34c., outside, and 34c. at Toronto.

New oats are quoted at 29c. to 30c., at outside points.

Flour—Manitoba patent, \$3.90, track, Toronto. Manitoba patent, special brands, \$4.50; strong bakers', \$4. On-

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tario, 90 per cent. patents, \$2.85 bid for export.

Millfeed—Bran, sellers, at outside points at \$15 to \$16; shorts, \$20, nominal, at Toronto.

SEEDS.

The new crop of alsike clover is being thrashed in some localities, and several samples have been offered Toronto seedsmen. No. 1 alsike is quoted at \$6 per bushel, and No. 2 at \$5 to \$5.25 per bushel.

HIDES AND WOOL.

E. T. Carter & Co., 85 Front St., Toronto, have been paying the following prices: Inspected hides, No. 1 steers, 12½c.; inspected hides, No. 2 steers, 11½c.; inspected hides, No. 1 cows, 12½c.; inspected hides, No. 2 cows, 11½c.; country hides, dried, cured, 11c.; calf skins, No. 1 country, 13c.; calf skins, No. 1 city, 14c.; pelts, 75c.; lamb skins, 75c.; horse hides, \$3.25 to \$3.60 horse hair, per lb., 30c.; wool, washed, 26c. to 27c.; wool, unwashed, fleeces, 16c. to 18c.; tallow, rendered, 5c. to 5½c. per lb.

FRUIT MARKET.

Receipts liberal, with prices generally firm for all fruit of good quality. Raspberries, red, 7c. to 9c. per quart; Lawtons, 7c. to 9c.; black currants, per basket, \$1.10 to \$1.25; blueberries, \$1.25 to \$1.35; peaches, 25c. to 75c.; Canadian musk melons, per basket, 25c. to 30c.; cucumbers, 10c. to 15c. per basket; tomatoes, 15c. to 20c. per basket; apples, 15c. to 20c. per basket; pears, small, 20c. to 25c. per basket; pears, large, 35c. to 50c.; egg plant, 35c. to 40c. per basket; peppers, 30c. per basket; corn, per dozen, 6c.; Canadian celery, per dozen, 35c. to 40c.

Chicago.

Cattle—Common to prime steers, \$3.75 to \$6.75; cows, \$2.85 to \$4.70; heifers, \$2.60 to \$5.35; bulls, \$2 to \$4.50; calves, \$3 to \$7; stockers and feeders, \$2.60 to \$4.25. Hogs—Choice to prime, heavy, \$6.25 to \$6.30; medium to good, heavy, \$6 to \$6.15; butchers' weights, \$6.20 to \$6.35; good to choice, heavy, mixed, \$6 to \$6.15; packing, \$5.60 to \$5.95; pigs, \$5.60 to \$6.30. Sheep and Lambs—Sheep, \$4.25 to \$5.75; yearlings, \$5 to \$6.35; lambs, \$6 to \$7.85.

Buffalo.

Cattle—Prime steers, \$5.60 to \$6; shipping, \$4.85 to \$6.50; butchers', \$4.26 to \$5.40. Veals—\$4.50 to \$9. Hogs—Heavy, \$6.50 to \$6.55; mixed, \$6.55; Yorkers and pigs, \$6.55 to \$6.60; roughs, \$5.10 to \$5.35; stags, \$4 to \$4.50; dairies, \$6 to \$6.40. Sheep and Lambs—Lambs, \$5.50 to \$8.50; yearlings, \$6 to \$6.25; wethers, \$5.75 to \$6; ewes, \$4.75 to \$5.25; sheep, mixed, \$3 to \$5.50.

Representative Cheese Board Prices.

Woodstock, 12c. to 12½c. Picton, 12½c. Kingston, 12½c. Madoc, 12 3/16c. Tweed, 12c. Iroquois, 12½c. Kemptville, 12½c. Napanee, 12½c. Ottawa, 12½c. Brantford, 12½c. to 12½c. South Finch, 12 5/16c.

Montreal.

Live Stock—Notwithstanding rather poor advices arriving from England last week, the demand for ocean freight space has been active, and, it is claimed, all the space to end of September has been contracted. This is principally for the shipment of Northwest ranch cattle, it being thought that there are a considerable number of these to come forward this season. Liverpool space has been let at 45s.; London and Glasgow, 40s. Besides the regular sailing, three additional vessels will leave during September, capacity about 3,000 head. In the local market, prices show little change, supplies lighter, and tone of market rather firmer. Some of the best cattle sold at 5c., fine being 4½c. to 4¾c.; good, 4c. to 4¾c.; medium, 3½c. to 4c., and common, 2½c. to 3½c. Sheep, 3½c. to 4½c.; lambs, \$2.50 to \$5.50 each, and calves, \$2 to \$5 for fair, and \$6 to \$10 for choice. Milch cows, \$25 to \$50 each. Although the offerings of live hogs were not very large, the tone of the market was weak, and prices experienced a fractional decline, at 7½c. to 7¾c. per lb. for selects, off cars.

Dressed Hogs and Provisions—Dressed hogs very little cheaper; some still quoting 11c. per pound for finest, fresh-killed abattoir. Lard in good demand at 8½c. for refined compound, and 12½c. to 13½c. for extra pure and finest kettle.

Horses—Horses have been so scarce it has been hard to secure enough. Heavy-draft horses, 1,500 to 1,700 lbs., \$250 to \$300 each; light-draft, 1,400 to 1,500 lbs., \$200 to \$250 each; express, 1,100 to 1,300 lbs., \$150 to \$200 each; choice saddle or driving, \$350 to \$500; fair drivers, \$150 or \$125, and poor old horses, \$50 to \$100.

Hides, Tallow and Wool—Lamb skins, 10c. up, at 60c. Calf skins are steady at 13c. per lb. for No. 2, and 15c. for No. 1. Beef hides, steady; dealers are paying 10½c., 11½c. and 12½c. per lb. for Nos. 3, 2 and 1, respectively, and selling to tanners at an advance of ½c. Horse hides are \$1.50 each for No. 2, and \$2 for No. 1. Rough tallow is steady at 1½c. to 3c. per lb., rendered being 5c., and only in moderate demand. The wool market was about steady. There is very little coming in here, and it is not thought that there is much activity in other parts of the country. Prices are: Canada fleeces, tub-washed, 26c. to 28c. per lb.; in the grease, 18c. to 20c.; Canada pulled, brushed, 30c., and unbrushed, 27c. to 29c.; pulled lambs, brushed, 30c. to 32c., and unbrushed, 30c.; N.-W. Merinos, 18c. to 20c.

Cheese—Market has been showing great strength, and prices are now higher than every before for this time of year. The strength is attributed to a falling off in the make, and to large shipments leaving stocks light. Season's shipments to week ending Aug. 11th total 1,118,000 boxes, or 100,000 more than a year ago. The quality of the cheese leaves room for criticism, especially in the case of Quebec makes, and this accounts for a considerable range in prices. We quote Quebecs, 12c. to 12½c.; Townships, 12½c. to 12½c.; Ontarios, 12½c. to 12½c.

Butter—Make is on the small side, but demand light. Exports are falling further and further behind as season ad-

vances, being now 100,000 pkgs less than for the corresponding period last year. Good to fine creamery, 22½c. to 22¾c.; fine to fancy, 22½c. to 22¾c.

Eggs—Steady, stock showing a slight improvement in quality; 17½c. for straight-gathered; select, candled, 20c. to 21c., and No. 2 stock, 13c. to 15c.

Potatoes—Market took a rise last week, though it was looked on as but temporary. Dealers have paid farmers 90c. per 80-pound bag, and \$2 per bbl.; resold at \$1.15 and \$1.25, respectively.

Tomatoes—Farmers in the vicinity of Montreal are busy harvesting the immense crop of tomatoes. Although the price of these is supposed to be 25c. per bushel, purchases have been made at 20c., and even 15c.

Grain—Oat market has been weak, and prices got down to the lowest point touched in months, viz., 36c. to 38c., store.

Hay—Stocks are lights, and farmers too busy to bring in new hay. Prices firm at \$8.50 for clover and clover-mixed, \$9.50 for No. 2 timothy, and \$10.50 for No. 1. Demand good.

Flour and Feed—There is an easier feeling in the flour market, and purchases of Manitobas have been made lately at \$4 per bbl., in bags, for strong bakers', and \$4.50 for patents. Market for bran and shorts exceptionally firm. Millers say they cannot get enough to fill orders, particularly in bran. Bran, \$18 per ton, and shorts, \$21.

British Cattle Markets.

London.—Cattle are quoted at 10½c. to 12c. per lb.; refrigerator beef, 9½c. per lb.; sheep, dressed, 14c. to 16c. per lb.

GOSSIP.

In our list of auction sale dates claimed, it will be noticed that the dates claimed by Capt. T. E. Robson, Il-derton, and H. J. Davis, Woodstock, have been changed from Oct. 17th and 18th to October 24th and 25th.

The success of an auction sale of pure-bred stock, ordinary farm stock and chattels, or other property, depends largely, in the first place, upon judicious advertising in the publications that reach the greatest number of people likely to be interested in the class of stock or goods to be sold, and, secondly, upon the employment of a competent and trustworthy auctioneer. Such a salesman is Mr. Thomas Ingram, of Guelph, whose long and widely-extended experience in that capacity, coupled with his correct knowledge of values of live stock and properties, his ability, by his genial and gentlemanly manner to attract and hold the attention of a company, his honorable methods of dealing with seller and buyer, and his success in arranging satisfactory settlements, commends him to the patronage of farmers, breeders and others contemplating the holding of auction sales. The Guelph and surrounding districts are fortunate in having the services of so capable and successful a salesman within easy reach.

QUESTIONS AND ANSWERS. Miscellaneous.

PINK EYE.

My mare was served by a horse. After seven or eight days she took sick, and both mare and colt died. The veterinary calls it pink eye. He says the trouble was in the womb. The stallion had pink eye three years ago. Would he cause the mare to get it? About thirteen mares took pink eye after being served—seven to nine days after on a short route. The horse was guaranteed to have never had any sickness. If it is caused by the horse, can I collect damages? I learn that the horse had pink eye, and was sick three weeks. Both groom and proprietor knew it, but claimed their horse to be in perfect health.

Ontario.

Ans.—The loss of the mare cannot well be said to have been caused by the horse, and, notwithstanding the guarantee given by the proprietor, we do not see that you are in a position to establish a claim against him for damages.



HOME MAGAZINE

Life, Literature and Education.

Tuberculosis and the Fine Arts.

In a resume of Dr. John Bessner Huber's new book on Tuberculosis, which appeared recently in the New York Times Saturday Review, occurs the following paragraph:

"Had it not been for the tuberculosis parasite, Bastien le Page might have given us another Jean of Arc, Rachel might for many years have continued to permeate her audiences with the divine fire that was in her, John Keats might have written another 'Endymion,' Chopin might have dreamed another 'First Polonaise,' we might have taken another Sentimental Journey with Laurence Sterne, have had more of Robert Louis Stevenson's delicious lacework, and enjoyed more of Stephen Crane's war stories. The list is almost endless. It ranges from that splendid fighter, John Paul Jones, to Thoreau, Symonds, and Prosper Merimee."

It is true that the number of illustrious men and women who have succumbed to this dread disease is appalling, and at first glance it might seem as though "the great" have been especially sensitive to its ravages. Possibly, from the fact that musicians, literary men and students of all kinds have perforce to lead a somewhat sedentary life, there may be some ground for such a conclusion. Possibly, too, the highly-strung temperament of the real musician, the real poet, or dramatist or artist may have a weakening effect upon the mere bodily tissue, and so predispose its possessor to the disease; yet, since one human being in every seven dies of tuberculosis, the preponderance may not be as overwhelming as it seems.

A more interesting aspect from the literary standpoint is the conjecture as to what effect the disease itself has had upon the works of these men and women. Had it not been for the influence of tuberculosis, with its strange alternations of despair and almost jubilant hope; of pathetic resignation and a stubborn rebellion against encroaching weakness in which the frail strength is pushed to the limit; its periods of dreaminess, and retrospection, and almost feverish elation of mind, would we have had a Chopin at all, as we know him? Would we have had a Stevenson as we know him? A Thoreau? A Keats?

Those who have made a study of the subject say no,—that we should assuredly have had a Chopin, but not a Chopin of the weird and plaintive strain; a Stevenson, but a Stevenson of a different order; and so on throughout the list. If there be anything worth noticing in the theory—and it only seems reasonable to suppose that there may be—the characteristics of these workers have surely been paid for at a terrible cost. The supposition is at least interesting, pathetically so to the admirer of these invalid artists, psychologically so to the investigator and the theorist.

A P. E. I. Writer on the Consolidated School Question.

The interest in the Consolidated School still holds with a tenacity that proves this to be one of the live subjects of the day. The following, from the pen of Mr. Theodore Ross, Instructor in Nature Study and School Gardening in P. E. Island, has been called forth in reply to previous articles on the subject which have appeared in these pages:

The way in which an opinion can be arrived at regarding the value of a general system of Macdonald Consolidated Schools, such as those instituted by Dr. James W. Robertson, would be by noting the defects in our present system and considering to what degree these defects would be remedied by the newer system.

The chief defects in our present system are: (1) Inexperienced teachers, (2) irregular attendance, and (3) a curriculum not sufficiently articulated with the industrial needs of our community.

The causes of so many of our schools being taught by teachers of little or no experience are: (1) lack of adequate remuneration, and (2) lack of social life.

The consolidation of our schools would lead to the establishment of more schools of the first rank, the principals of which would receive a larger Government grant. It is quite possible, too, that it might lead to larger grants from the ratepayers. In small school districts it often happens that a son or daughter of one of the trustees or prominent ratepayers is a teacher, and through her relatives and personal friends will get the school, which he or she would likely agree to take at a very small remuneration, because of living at home and having no board to pay. This will not be possible to such an extent in a much enlarged district. Again, one would think that a teacher having charge of a large school with several teachers under him would receive a larger grant from the ratepayers than if he were teaching in an ungraded school, but that has not been the experience with us. It does not seem to follow that the mere consolidation of the schools will influence the ratepayers to vote larger supplements, especially if in the consolidation any additional expense is incurred, but it will lead to a larger Government grant, which will mean increased remuneration for the principal.

The presence of several teachers at one center will do much to create a social atmosphere. Around them the more ambitious young people of the district will congregate. Societies will be formed, concerts given, and programmes carried out, and the whole intellectual life of the people quickened. All this tends to raise the status of the teacher, and the experience of the past has been that the teachers in a school of several grades remain longer in the profession than those who teach in ungraded schools, even though the remuneration may be no greater.

If we look over the statistical tables of our public schools for the

last ten years, we will find that the percentage in attendance has been about ten per cent. greater at the graded schools than at the ungraded schools. The chief cause of the low percentage of attendance is that the parents do not like to compel their children to go to school when they find it so unpleasant and irksome, and when the facts through which the children are trained bear so little relation to the life of the people. The mere fact of increased numbers makes the school work more agreeable to the pupil, and makes possible the playing of more interesting games during the intermissions. When to this is added a comfortable building with attractive surroundings, and studies which appeal to the native interests of the children, and which will make a direct appeal to the parents, we have good reason to think that the increase in attendance will be very marked, as it has been, and is, at the Hillsboro and Tryon, P.E.I., Consolidated Schools.

The feeling that our curriculum has not been adapted to giving the boys and girls the best possible training for life, especially in an agricultural community, has long been growing. Many parents object to their children going to school too much, lest they should be unwilling to work at all. The charge is only too true, that our schools have been weaning the boys and girls away from the farm, and unfitting them for life in an agricultural community.

The idea that the senses need training as well as the intellect, and that a trained intelligence can be used satisfactorily in the running of a farm, if not novel with us, has not been sufficiently impressed upon us to influence our curriculum, and the reason our schools are so poorly supported by our people is that they have so little in common with our life. The introduction of household science, manual training and nature study will meet this difficulty most effectively. It may be possible that these subjects can be taught in an ungraded school; it is not probable that they would be. At any rate there can be no doubt that they could not be taught with equal efficiency.

The introduction of these subjects will increase the cost of maintenance of our schools, but our farmers, as a class, are well off and are willing to pay for a good service. In brief, a general system of Macdonald Consolidated Schools, such as those instituted by Dr. James W. Robertson, would remedy the gravest defects of our present system, giving us teachers of greater experience, a more regular attendance of pupils, and a curriculum more closely articulated with the industrial life of our people.

THEODORE ROSS.

"Let the wealthy and great
Roll in splendor and state,
I envy them not, I declare it;
I eat my own lamb,
My chickens and ham,
I shear my own fleece and I wear it,
I have lawns, I have bowers,
I have fruits, I have flowers,
The lark is my morning alarmer;
So my jolly boys now,
Here's God speed the plow,
Long life and success to the farmer."

The "Eastern Debate" Issue Develops Into a Controversy.

The writer of the present article has very carefully read the views of the different writers in the "Eastern Debate," and having had some experience in the character of the work that it is possible to do in both rural schools and consolidated schools, he may be pardoned for giving his opinion on this important question. First, however, it would seem just to those who have had the management of the finances of the Macdonald Consolidated School at Middleton, N.S., to correct the charge of mismanagement that seems to be attributed to them in one article written in this debate. The school board of this section has always used all economy possible in keeping with the school. "Macdonald's money is doing it" has never been the "keynote" of the expenditures in this place, but lives only in the imagination of some on-looker.

There are other things in the article to which I have referred that might call for some comment. While many good things are said, others are somewhat contradictory. Evidently the article was written in a hurry. The conditions here force us into "academic conditions." No school in Western Nova Scotia, with, perhaps, one exception, has had a larger number of pupils doing high-school work than the Macdonald Consolidated School at Middleton. It is true that this called for expensive laboratories to do effectually the work placed upon the school; but that the school is worth all it costs is the universal verdict of those who know.

In addition to the high-school students of the central town, sixty pupils doing high-school work have been carried to this school annually. If these pupils went abroad for the privileges they have received here it would have cost their parents more than the extra cost of this school over that of the separate miscellaneous schools. But this is only one item. The high-school pupils of the town have had more valuable school privileges, and over three hundred pupils in the common-school grades have had advantages that could never come to them in the smaller schools.

As to the salaries of teachers, the best teachers were looked for, and fair salaries were paid; but to show that no "extravagances" because "Macdonald's money was doing it" have occurred, it may just be said that the school board, now that it pays all arrearages, has increased the salaries of all the primary teachers.

The plea that one writer makes for the miscellaneous schools is simply absurd. The fact that some great men have gone out from them is no argument that they are as good as something better. The establishment of consolidated schools is simply in keeping with the trend of industrial life, providing for a division of labor that carries with it means for more effectual work. The grading made possible in the larger school is one of the first arguments for consolidation.

This is the first necessary step for effectual school work.

The writers in the affirmative of the debate have set forth the advantages of consolidated schools fairly well, and they need not be repeated here. These have all been verified in the experience of this school. But the extent of country covered by this school consolidation has been found to be too large. The more distant sections regret that it is not possible for them to remain in the consolidation, while the central sections have increased their taxation to help maintain the school. The Macdonald Consolidated School has come to Middleton to stay. There is scarcely a doubt as to its being fully supported financially by the ratepayers within the district after another three years.

It may be well to say just here that this place cannot be considered as affording a good lesson in cheap consolidation. Large sections were united, giving an aggregate of more than four hundred pupils. Long distances made expensive van-drivers' salaries. The large schools united did not permit a decrease in the number of teachers. The large number of pupils called for large school accommodations. The expenses have necessarily been in the extreme.

But there are in this Province, and no doubt also in other provinces, many small sections that may be united very advantageously. Three or more sections having few pupils may be brought to a central school. The number of teachers may be reduced. The cost of carrying the few pupils will not be large. Under such conditions the consolidated school solves the problem of rural school life. The cost need be little more than the total of the several smaller schools, and that better and more effectual work can be done in a well-graded school of this character few educationists will attempt to deny. Such a school affords somewhat the conditions of a city school, with all the privileges of country life.

Progressive measures have always had their opponents. Men are slow to learn. Time alone proves the wisdom of improved measures. In 1867, when the British North America Act was passed, a large majority of the voters in this Province expressed disapproval; but to find a man of intelligence who would now vote for a repeal of that act would require a Diogenes with his candle. We confidently predict that the same will be true of rural school consolidation. In the more rural sections of this Province the work is steadily progressing. The object lessons that the munificence of Sir William C. Macdonald has given here are being used throughout the Province to help the work along.

GEO. B. MCGILL.

Principal, Macdonald Consolidated School, Middleton, N. S.

Physical or Moral Suasion, Which?

No. I.

I have before me, as I write, clippings from at least half a dozen papers, each having something to say upon modern and past methods in the training of boys. The first tells of a reunion of old pupils with the old masters, who had taught them and oftimes had "admonished them with the rod" half a century ago. "Boys were boys in those days," said an old veteran, as he produced, as an interesting relic, a genuine rawhide, which he, with some youngsters, had captured when lads in one of the old Toronto schools, the speaker being one of a group of successful citizens who seemed to have been none the worse for that old-time method of enforcing order. Clipping No. 2, dated Ithaca, N. Y., July 15th, under the heading,

"A CARNIVAL OF SPANKING,"

tells the following:

"The police court to-day resounded

with wailing. Eight mothers plied a stick given by Recorder Sweetland on the trousers of their offspring. The youngsters had been arrested after hard work by Chief of Police Van Order and two railroad detectives for many car burglaries during the last month.

"Their parents were poor, and Recorder Sweetland offered to remit the fines on condition that the parents administer corporal punishment in court. The mothers eagerly grasped the rods and proceeded to earn what one of them called 'the easiest five dollars of her life.'"

No. 3 tells of a sad fatality which occurred less than a fortnight later, through the fatal prank of some boys who had placed a spike between the rails, causing the locomotive and baggage car of the train to roll down an embankment. In such a case should it be physical or moral suasion?

Clipping No. 4, from the New York Evening Post, deals with

THE DECADENCE OF THE SLIPPER.

"A police chief in a Chicago suburb says that 'the decadence of the slipper

'Dar's ma son ovah dar, twenty-seben yahrs ol'. An' when Ah shakes ma fist an' sez 'Co' heah, yo' Sam,' Sam comes. Yep, dat's what he does.

"Now, Ah's done fried a rabbit fo' dis chil' fo' brekfus, an' fo' dinna' Ah'm a fixin' of dese neck bones. Ef yo' feed a chil' he won' go wrong, but jes' let him begin a-wonderin' war he's a-gwine to git somethin' to eat, an' he's gwine to steal.

"When Carl come home from school he's gwine to get fed an' spainked an' putt'n to bed. Dus heah cake-walkin' an' crap shootin' ain't doin' nobody no good."

"The ordinary reader cannot help wondering," adds the writer of the above, 'whether a little of the 'Mammy' Fishback theory might not be mixed with the latest pedagogical systems with advantage.'

One thing is certain, that whether it be by example or by precept, by slipper-discipline, or by purely moral suasion, co-operation between teacher and parent should be recognized as a most important factor of the upbuilding of the rising generation. H. A. B.

Current Comment.

Items of News.

The Japanese will open Dalny as a free port for foreign trade on September 1st.

Greeks and Bulgarians are again in collision, and the town of Aholu has been almost destroyed.

Mrs. Pearl Craigie, better known as "John Oliver Hobbes," died suddenly at her home in London, Eng., on August 13th.

An earthquake, rivalling that of San Francisco, has occurred at Valparaiso. Two thousand dead, 100,000 homeless, and \$250,000,000 loss, is the estimate at present.

At the Inter-Parliamentary Union, which assembled in London, Eng., recently, the following countries were represented: Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Holland, Hungary, Italy, Mexico, Norway, Portugal, Roumania, Russia, Spain, Serbia, Sweden, Switzerland, and the United States.

King Edward and Emperor William recently had a friendly conference at Cronberg. From the fact that Sir Charles Hardinge, Permanent Under-Secretary of the Foreign Office, accompanied King Edward, it is surmised that affairs of importance other than the mere development of more friendly relations between England and Germany were discussed.

Indian Chiefs in London.

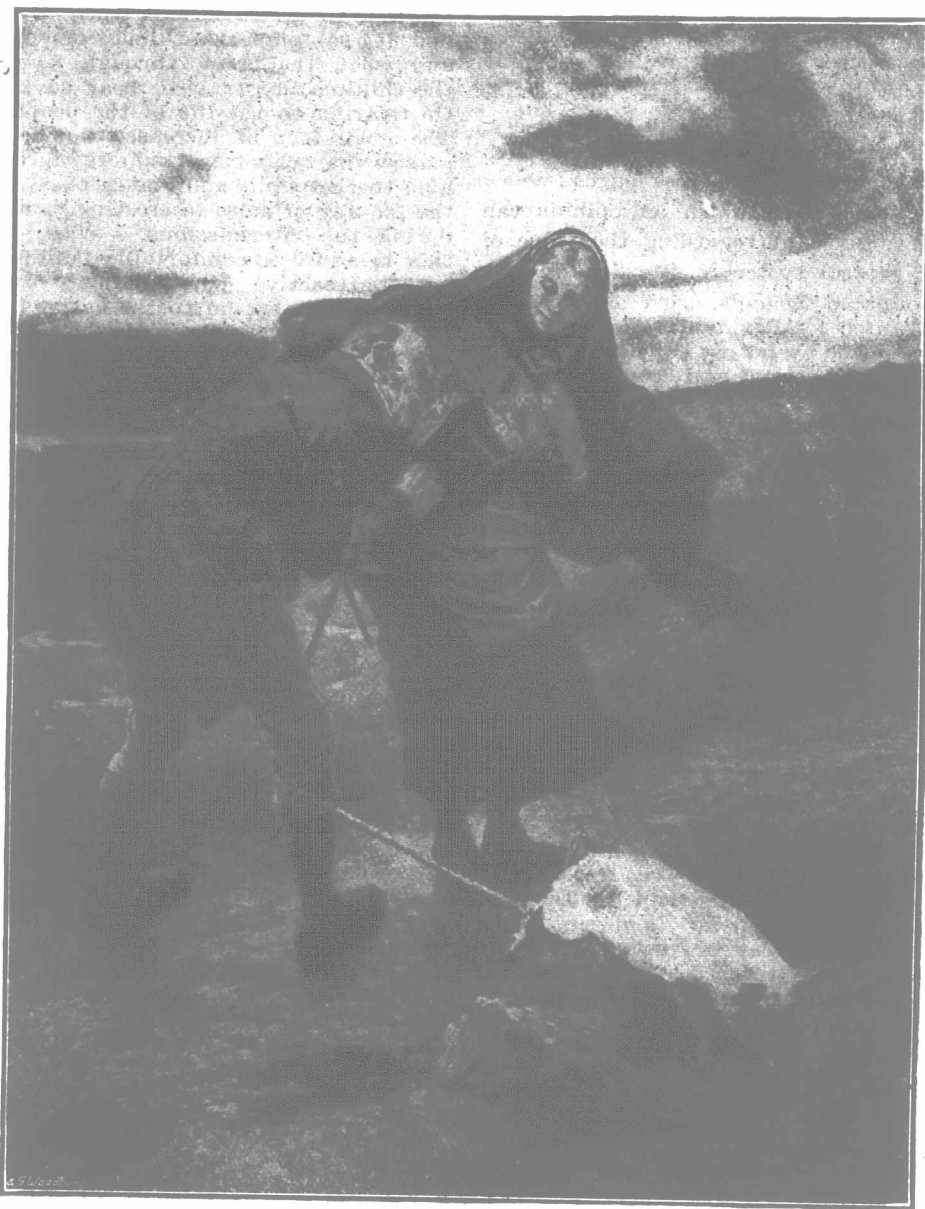
Joe Cappilano, Charley Tsilpynialt and Basil, three chiefs of as many tribes in British Columbia, were in London, Eng., lately, with a message of greeting to King Edward, and a request for some remission of the B. C. game law, so that "close" seasons for game will be abolished. Simon Pierre, an interpreter, accompanied them. They were not arrayed in the barbaric grandeur of native costume, but in sober Anglo-Saxon garb, having their war paint and feathers in a suit-case. They were referred, by the High Commissioner, to the Soldiers' Home at Buckingham Gate, to await the return of His Majesty from the races and the regatta, in order that they might "press his hand," providing their finances held out. They were delighted at the hospitality of the English people.

The Passing of War's Glory

The fact that the chief ornaments of the Royal Gallery of Westminster Palace, in which the fourteenth conference of the Inter-Parliamentary Union recently assembled, are two immense paintings by Maclise, one depicting the meeting of Wellington and Blucher after Waterloo, the other the death of Nelson, has been commented on as one of the ironies of accident. To go a step further, might it not be argued that the meeting of such a body in such a room indexes very clearly the changing ideals of the civilized world?

A country's artists usually depict its ideals. When Maclise painted the meeting of Wellington and Blucher, he perpetuated on canvas the memory of an event which occurred when all England was riotously jubilant, and "Victory!" was a shout which helped to thrill with a nation's pride even the hearts of those who must mourn. When he made the details of Nelson's death live again, he sounded once more over England the magic words, "England expects every man to do his duty," and the death-sweat of the gallant Admiral was again lost sight of in the glory of England's prowess.

To-day, notwithstanding the fact that the nations are arming on a



By William Small.

The Last Match.

is responsible for the great crop of bad boys that are making trouble for the officers who enforce the law. His theory is borne out by 'Mammy' Fishback, a forceful negro woman of the same suburb who has raised fifteen 'chillun' of her own. Mrs. Fishback described her method of dealing with bad boys when she appeared before a judge in connection with the case of her grandson whom the probation officers declared to be incorrigible. It should be said that after the judge had turned over the boy to Mrs. Fishback, she soon had him on the way to school, apparently docile. In discussing the boy with the probation officers, 'Mammy' Fishback said:

"Dey ain't nothin' at all de mattah wid dis heah picaninny excep' he flips in his mouth. Ah cain't read noh write, but Ah can tell yo' all how to fetch up chillun. All yo' got to do is spaink 'em hard an' pack 'em off to school.

"Ah tol' de principal dat when he git done spainkin' Carl to send him home fo' me to finish up. Why, honey, Ah've raised fifteen of ma own an' nussed six white chillun what done call me 'Mammy.'"

The Last Match.

"Any Port in a Storm," and truly never was port more welcome to vessel in distress than was the Colleen Nora's crimson cloak to Pat, when in his extremity he met her on the moor as he was bringing piggy home from market. "Stop, darlint, and give me a chance with my last match," cries Pat. "Yes, and welcome," replies Nora. "If it's his last match, it's my last chance," thinks cunning piggy, all of which our picture makes clear to us without any need of written interpretation. H. A. B.

Conversation.

Conversation is but carving;
Give no more to every guest
Than he's able to digest;
Give him always of the prime,
And but a little at a time;
Give to all but just enough,
Let them neither starve nor stuff,
And that each may have his due,
Let your neighbor carve for you.

—Sir Walter Scott.

scale more stupendous than ever before, it is, perhaps, no far cry to state that the temper of the best and most powerful races the world over is, almost to a nation, for peace. Otherwise, why should there have been fourteen Inter-Parliamentary Unions all tending towards the approaching Hague Congress, an institution conceived wholly in the interests of peace? Why should there be a Palace of Peace at all? Why should sovereigns meet and parley—as is the fashion nowadays—in the

hope of averting war? Why should the King of Italy, to cite but one example, choose to find his greatest interest in an International "Agricultural" Council, rather than in matters once considered nobler? Why should the visit of a Chamberlain, a John Morley, a Marconi or an Edison to any civilized city excite more interest, if, perhaps, less uproar, than that of a Lord "Bobs" or a Kitchener? . . . One might go on multiplying queries, but the conclusion is to many minds evident.

To revert to the subject of the pictures—our artists nowadays do not paint "war," or if they do it is not to glorify it. Even Russia's canvas spokesman, Verestchagin, chose only to depict its horror, hoping thus to help stem its tide. It was, perhaps, another irony, a bitter one, that to war, his enemy, he should be sacrificed, going down to his death in the ill-fated war ship, Petropavlovsk, which exploded near the beginning of the Russo-Japanese war.

Neither do our poets write war-songs. If they essay the task the public does not acclaim, or if it does only because of something else in the poem more appealing than the war spirit, as in Kipling's "Lest we Forget."

When ideals change actions follow. Possibly by the dawning of another century such a revolution may have been accomplished as may render less visionary the poet's dream:

"Ring out the thousand wars of old,
Ring in the thousand years of peace."

With the Flowers.

Vines for the House.

As vines may be planted either in the fall or in spring, the following note from Mr. J. Jackson, of Abingdon, is in season. The illustration shown is of the porch of Mr. Jackson's home.

"The vine with the mass of flowers represented in the photo is the Clematis. The other vine, running up over the windows and also around veranda, is the Chinese Wistaria. The Wistaria (or Wistaria, as it is sometimes written) is a hardy, strong-growing vine. It requires very little care, and will climb a single wire if wound around it. This vine has been growing some eight years, and is now 2 to 2½ inches in diameter at base. It flowers when three or four years old; large clusters of nearly white, blossoms, which, however, do not last long. Its principal beauty is its foliage for shade in summer.

"The Clematis.—There are a number of varieties of these. This is known as the Jackmanii, the most beautiful of them all. It requires good rich soil with plenty of water, and will flower the first year; but the older it is, the greater number of vines, consequently the greater mass of flowers. This vine is four or five years old. The Clematis should be cut back to within about a foot of the ground every year so as to force new wood every year. It will grow about 2 inches a day till it reaches its full height (about ten feet), flowering about first of July, and continuing a mass of beautiful rich purple flowers for a month or more. It can be propagated by cuttings, or by laying down a vine similar to the way grapes are propagated. Neither pen nor camera can, in any way, do justice to this beautiful vine; it must be seen to realize its wonderful beauty."

Moving Roots—Amaryllis.

Will you please tell me when would be the best time to move some rose bushes, Lily of the Valley, Narcissi, Trumpet Vine, and Tulips. We have moved our house, and I want to move the flowers

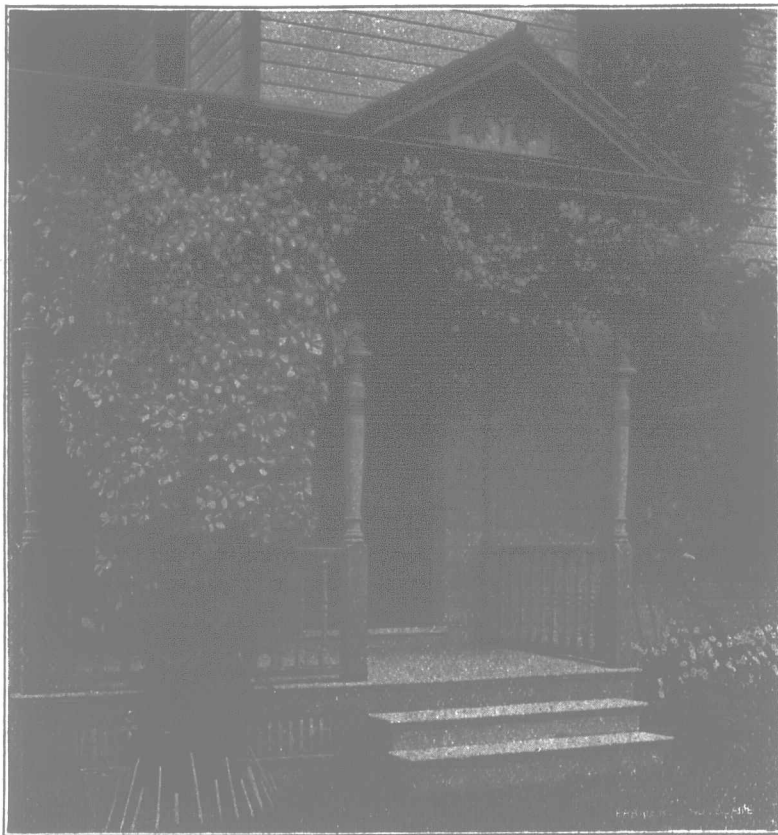
when I can do so and not injure them. I have an Amaryllis that does not bloom. What can I do to make it put forth flowers? PEARL E. MILLS. Kent Co., Ont.

Roots may be reset either in fall or in

spring. If in the fall, move them any time between September 20th and October 15th. If much later than this, there will not be time for the roots to develop, and the plants will stand a much worse chance of surviving the winter. When resetting the rose bushes and Trumpet Vine, be sure to make the bed very deep and mellow, and work in plenty of manure.

Possibly the reason that your Amaryllis does not bloom is that you have never "rested" it. While the plant continues to put forth fresh foliage, give plenty of water, but when it no longer sends up fresh leaves "rest" it by cutting off the water supply gradually, until just enough is given to keep the soil from getting bone dry. During this period it should be kept in a somewhat dark place, where the temperature does not fall below 45 degrees; but do not put it in the cellar, as it might become too cold and damp there. Watch it closely, and as soon as there are signs of fresh life, remove it to a place where it will get more heat and light, and increase the water supply. While growing actively, occasional doses of weak liquid manure may be given to the soil.

The Amaryllis needs plenty of draining material (broken crockery, etc.) in the bottom of the pot, and a good rich soil, preferably of two parts good loam and one part of old black cow manure. It should never be disturbed unless absolutely necessary, because of sourness of the soil, etc. If it has to be removed, handle very carefully, sifting the soil about it to about half the depth of the bulb, and firming down by watering rather than by pressing with the hand. If potted in the fall, the plant should be kept rather dry until about January 1st, then forced as quickly as possible. After flowering, which is the time in which the Amaryllis makes its best growth, great care should be taken of the plant.



Clematis Jackmanii (the larger vine) and Chinese Wistaria (over the door).

The Quiet Hour.

At Crystal Springs.

The sunlight through the garret window gleaming,

Fell bright across the bed,
Where lay a sick child with her loose hair streaming
In glory round her head.

And by the ragged bedside, softly weeping,

Her mother knelt and prayed
That the dark shadow, slowly o'er her creeping,
In mercy might be stayed.

For she was all she had, and life was lonely

In that foul city slum,
Where Sin laughed loud in Death's pale face, and only
The voice of God seemed dumb.

And, as she prayed, lifted the white lids slowly,

And turned the golden head,
And asked the loved voice, faint and sweetly lowly,
"Mother, have I been dead?"

"I think I must have been, for I've been going

Through such a pleasant land,
Where tall trees drooped across a river flowing
Over gray beds of sand.

"And all around green fields were lying sleeping,

Lulled by the lazy breeze
That down the distant hills kept softly sweeping
And murmuring through the trees.

"It was just like the day we had last May-time,
Out in the fields somewhere,
That seemed like heaven all the happy daytime—
And now I'm going there.

"Back to the world of fields and trees and flowers,
And bright blue sunny sky,
Where the birds sing all through the long day's hours
And children never die.

"Heaven must be like that—somewhere or other—
Full of sweet air and light—
And you'll come to me some day—won't you, mother?
I'm sleeping now—Good-night!"

—Selected.

As so many of our readers helped to send some poor children from Toronto to the country this summer, it may interest you if I tell you something about our Fresh-air work here. We have about 300 children attending our various clubs and classes during the winter, and, when the hot days come, those who have been most regular are sent to country through various Fresh-air missions. This year a house called "The Crystal Spring House" was also placed at our disposal. It was fitted up with every necessary and many luxuries by kind friends, on purpose to give some of the children—children and mothers—from the tenements around us a little taste of Paradise here on earth. This week we have some of the weary, delicate mothers and their little children. I am sitting on the veranda writing this and watching one of the babies swinging in a hammock under the big maple trees. One of the mothers is sitting in a rocking-chair be-

side me, professing to darn stockings, but really drinking in deep breaths of the deliciously cool air and enjoying a little much-needed idleness. Two little children are playing with the croquet balls near, rolling them down the grassy slope. Another mother is lying on an old quilt on the grass with her baby beside her, saying: "Yes, Abraham, we haven't any bad smells or ash barrels here, have we, sonny?" The baby kicks up his heels in delighted assent. The ice wagon has just driven up to the door, so you see we are not without city advantages, although this dear old farmhouse is almost in the woods.

But I must go back and describe our first arrival, a month ago. I started from the city with a party of little Jewish girls at ten o'clock in the morning, and we rode on the electric car for about two hours. Then we followed a winding path through the woods and across the fields, the children stopping to pick wild flowers and ferns, or chasing butterflies with eager delight—at home they hardly ever see a blade of grass, it doesn't grow very well on paved streets. At last we reached the roomy, comfortable red house on the edge of the woods—and there was great excitement as the children were sorted out in the various bedrooms, each containing four or five beds. These beds are enamelled white, and look very dainty with their white quilts and pink or blue flowered comforters. The very sight of the pretty rooms is enough to inspire the children with a desire to improve their own surroundings. The kind friends who fitted up the house spared no expense, and seem to have thought of everything. There is plenty of furniture in every room, and also a nice little bath-room, with hot and cold water laid on from a private reservoir. The sitting-room is

well supplied with rocking-chairs and other luxuries—including a shelf of bound books and a large box full of paper ones. The kitchen has its taps for hot and cold water, and is fitted up with everything dear to a housekeeper's heart. There are pans and kettles of granite-ware, a chain dish-cloth, dish-mop and soap-saver, a three-cornered scrubbing-brush on a long handle; indeed, it would be hard to think of anything that could be needed in a well-ordered kitchen that is not there or on the shelves of the big, airy pantry. It doesn't seem much like camping out when one finds such things as an ice-cream freezer and a refrigerator ready for use. The dining-room sideboard has its silver drawers lined with velvet and well filled with knives, forks and spoons. The children soon learned to set the table nicely, putting a table-mat under each plate, and setting beside it the pretty napkin-rings—and what pride they took in showing themselves to be good housekeepers! To live for a little while in such fresh, dainty rooms is the best kind of object-lesson, for how can they learn even the rudiments of housekeeping in their crowded, dirty rooms, where they have nothing but the barest necessities very often?

What a glorious time those children had! They gathered berries—black, blue and red—wandered through the woods, or carried their pails to the Crystal Spring to get the clear cold water. They adorned their bedrooms with great bunches of wild flowers; they played games, sang songs, or stretched themselves out on the grass or in the hammock in luxurious enjoyment. It is little wonder that when they have to go back to the hot, crowded city streets, they say they are "country-sick," or—as one of them declared—feel as though they

had dropped down from Paradise to earth. Think what such an outing means to little ones whose only playground is a hot, paved street, to get a chance to roll about on the grass under beautiful maple trees, looking up at the blue sky through waving green leaves. Then in the evenings we had amateur entertainments of various kinds, with occasional rushes into the bushes in chase of fireflies. One night we made a dwarf for the children's amusement. One big girl sat in a curtained doorway with a table, covered with a sheet, in front. Her hands, which rested on the table, were covered with stockings and boots, while another girl, standing behind her, provided arms for the funny little man who was dressed in a pair of little trousers and a coat—the latter put on wrong side before. The curtains were carefully pinned to hide the girl who was behind, and the dwarf waved his hands as he stood or danced on the table, while the children crowded round to shake hands and talk to him. Another evening we had Jack and Jill to entertain the company. The faces were made with bits of black cloth pinned to a sheet. Two people lay down on the floor with their bodies under the sofa and their clasped hands uplifted. The outlined faces were fastened over the clasped hands, with neckties tied round the wrists, and the sheet covered the performers. The room was nearly dark, and the children shrieked with delight as the two little figures nodded or shook their heads in answer to questions. We had many other performances, repeated each week with a new lot of children, for we could only keep them a week, as there were so many who needed an outing. I was kept busy telling stories, playing games, or making tiny dolls out of clothes-pins, clay pipes or wire. But this week, when we have the mothers and babies, you see I am getting plenty of time for my weekly chat with you. But, indeed, I enjoyed this new experience quite as much as the children, though I did not join in the riotous fun which they mis-called "going to bed" at night.

There was only one drawback to my enjoyment of this splendid holiday, and that is always present in connection with our neighborhood work amongst the Jews. Our orders are strict, and we are absolutely forbidden to preach Christ to them. It is very hard to obey orders, when these dear little children flock around me begging for a story. It is so easy to reach the hearts of children and to awaken in them a real love for the King,

and, if they consecrate themselves to His service in the freshness of their innocent childhood, their whole lives will be flooded with joy and sunshine. The soil is so good, the seed is in our hands, but we are forbidden to sow it. However, kindness is appreciated everywhere, by old and young, Jews and Gentiles, and the Jews have experienced so much unkindness and even cruelty at the hands of those who call themselves Christians that we have to teach them first by deeds rather than words that the right name for Christianity is Love. "God takes time," and so must we. In spite of my impatience, I fully understand the wisdom of the restrictions laid on us in this "settlement" or "neighborhood" work, and know that it is often best to "hasten slowly." Already our neighbors are beginning to say: "You Christians are far kinder to us than our own people." If we can first win their love and confidence, it may be possible, later on, to tell out the good news that the Messiah has come and has far more than fulfilled their highest hopes in connection with Him. Most of our children have come from Russia, and—naturally—expect anything but kind treatment from Christians.

But it is no wonder that we want to tell them of the love of God and of the holy gladness of the Communion of Saints, for many of them know almost nothing even of their own Scriptures. Sometimes they say that women have no souls until they get married. One dear little Jewish girl of ten years old, who came out to Crystal Springs with us this month, said that her father did not want to let her come because her mother had died a short time ago. She said she was not allowed to hear any music nor have any pleasure within the year. Her father told her that if she had any pleasure, her mother would come in the night and choke her. I hope and think that this was an extreme case, but how can we help trying to counteract such awful teaching as that? And, without direct Christian teaching, it is quite possible to awaken Christian ideals and teach them the glory and the gladness of loving service. Surely the many prophecies about the Jews' restoration have not yet been fully fulfilled. "Thus saith the Lord: I am returned to Jerusalem with mercies; My house shall be built in it, saith the LORD of hosts: My cities through prosperity shall yet be spread abroad; and the LORD shall yet comfort Zion, and shall yet choose Jerusalem. . . . and the LORD

shall inherit Judah as His portion in the holy land, and shall yet choose Jerusalem. . . . Thus saith the LORD of hosts: Behold, I will save My people from the east country, and from the west country. . . . and they shall be My people, and I will be their God, in truth and righteousness. . . . and it shall come to pass that, as ye were a curse among the nations, O house of Judah and house of Israel, so will I save you, and ye shall be a blessing." And so, as St. Paul says, "all Israel shall be saved: as it is written, There shall come out of Zion the Deliverer, and shall turn away ungodliness from Jacob: for this is My covenant unto them, when I shall take away their sins."

One thing is very certain, God loves these little children and their parents too, and the greater love we have for Him, the more eager we shall be in our desire to carry the Good News to them. As Browning says:

"For I, a man, with men am linked
And not a brute with brutes; no gain
That I experience, must remain
Unshared; but should my best endeavor
To share it, fail—subsisteth ever
GOD'S care above:—and I exult
That GOD, by GOD'S own ways occult,
May—doth, I will believe—bring back
All wanderers to a single track."

HOPE.

She and I.

(By James Berry Bensel.)

And I said, "She is dead; I could not brook
Again on that marvellous face to look."
But they took my hand and they led me in,
And left me alone with my nearest kin,
Once again alone in that silent place,
My beautiful dead and I, face to face.
And I could not speak, and I could not stir,
But I stood, and with love I looked on her.
With love, and with rapture, and strange surprise
I looked on the lips and the close-shut eyes;
On the perfect rest and the calm content,
And the happiness there in her features blent;
And the thin white hands that had wrought so much,
Now nerveless to kisses or fevered touch.

My beautiful dead who had known the strife,
The pain and the sorrow that we call Life.
Who had never faltered beneath her cross,
Nor murmured when loss followed swift on loss;
And the smile that sweetened her lips
Lay light on her blessed mouth that day.
I smoothed from her hair a silver thread,
And I wept, but I could not think her dead.
I felt with a wonder too deep for speech,
She could tell what only the angels teach.

And down over her mouth I leaned my ear,
Lest there might be something I should not hear,
Then out from the silence between us stole
A message that reached to my inmost soul.
"Why weep you to-day, who have wept before
That the road was rough I must journey o'er?
Why mourn that my lips can answer you not
When anguish and sorrow are both forgot?
Behold, all my life I have longed for rest—
Yea, e'en when I held you upon my breast,
And now that I lie in a dreamless sleep,
Instead of rejoicing, you sigh and weep.
My dearest, I know that you would not break
If you could, my slumber, and have me wake;
For though life was full of the things that bless,
I have never till now known happiness."
Then I dried my tears, and with lifted head
I left my mother, my beautiful dead.

My Prayer.

(By Anna Bensel.)

Teach me to bear my cross and sing,
Send me Thy patience from above;
Teach me to bend my will to Thine;
So fold me in Thy perfect love.
He who knows our frame is just,
Merciful, and compassionate,
And full of sweet assurances
And hope; for all the language is,
That He remembereth we are dust!
—John G. Whittier.

Children's Corner.

Post Card Collectors.

Lillian Mott, Box 39, Mt. Vernon, Ont.
Neta Charters, Sackville, N. B.
Dora Williams, White Oak P. O., Ont.

Teacher—What are marsupials?
Boy—Animals which have pouches in their stomachs.
Teacher—What do they have pouches for?
Boy—To crawl into and conceal themselves in when they are pursued.

Marie's Accident.

"Now, tell me why you cry, Marie?"
"I've had an accident," sobbed she.
"Where are your bruises? Deary me!
What was your accident, Marie?"
"I almost tumbled down," she said,
"And very nearly bumped my head!"

Rules for Dolls.

"A wooden-headed doll should be careful not to hit her head against her mother's, lest she should hurt her."
"A wax doll should avoid the fire, if she wishes to preserve a good complexion."
"Often an old doll with a cracked head and a sweet smile is more beloved than a new doll with a sour face."
"It is a bad plan for dolls to be stretched out on the floor, as people may tread upon them; and a doll that is trodden on is sure to go into a decline."
Madge was reading these rules to her dolly, with a very sober face. Then she laughed.
"Dolly," she said, "it's funny; but I really believe these rules are more for me than they are for you."

The Robins' Wedding.

(From "Eben Holden," by Irving Bacheller.)

Young Robin Redbreast had a beautiful nest, an' he says to his love, says he:
"It's ready now on a rocking bough
In the top of a maple tree;
I've lined it with down an' the velvet brown on the waist of a lumble-bee."
They were married next day, in the land of the hay, the lady bird an' he.
The Bobolink came, an' the wife of the same,
An' the Lark an' the fiddle de dee;

An' the Crow came down in a minister gown—there was nothing that he didn't see.
He fluttered his wing as they asked him to sing, an' he tried for to clear out his throat;
He hemmed an' he hawed an' he hawked an' he cawed,
But he couldn't deliver a note.
The Swallow was there, an' he ushered each pair with his linsey an' claw-hammer coat.
The Bobolink tried for to flirt with the bride in a way that was saucy and bold,
An' the notes that he took as he shivered an' shook

Had a sound like the jingle of gold;
He sat on a briar an' laughed at the choir an' said that the music was old.
The sexton he came—Mr. Spider by name—a citizen hairy an' grey;
His rope in a steeple, he called the good people
That live in the land of the hay.
The ants an' the bugs an' the crickets an' squigs—came out in a mighty array.
Some came down from Barleytown an' the neighboring city of Rye;
And the little black people they climbed every steeple,
An' sat looking up at the sky;
They came for to see what a wedding might be, an' they furnished the cake an' the pie.

The Letter Box.

(DON'T send letters for this "Corner" to the London office: send them to Cousin Dorothy, 52 Victor Ave., Toronto. I am afraid some of our little cousins have very short memories.)

Dear Cousin Dorothy,—I live on a farm. We have six cows, two horses and eleven pigs. I like to watch the little pigs play. I have a dog; his name is Jack. We take "The Farmer's Advocate," and we like it very much. I go to school, and I am in the Senior Second class.
—EWARD FLETCHER (age 7),
Cardinal, Ont.

Dear Cousin Dorothy,—My father has been taking "The Farmer's Advocate" for three or four years,



Little Orphans.

and he thinks it is good. I read the Children's Corner, and I think it is fine. I go to school steadily with my three brothers; their names are John, Vernon and Moffat. Then I have a little sister, three years old; her name is Margaret. I am in the Fourth Book. We have a very nice teacher; he is not cross. We are having our summer holidays now, and I am expecting to go to Islington to spend my holidays. We have five horses and one little colt. My pets are two little kittens, a dog, and twin calves. The dog's name is Major. He has quite a few tricks. BESSIE MILLER (age 11). Jamestown P. O., Ontario.

Dear Editor,—I have never written to "The Farmer's Advocate" before. I am in the Third Book, and go to school every day. I read the Children's Corner every time, and would not like to be without it. We are having holidays; we are enjoying ourselves, too. We have a collie; we call him Watch. He likes to play with us. I have a brother and sister; their names are Guy and Bessie. I live on the farm. I think I would rather live on the farm than in the city. We have a lot of chickens and some turkeys. I will write again if I see this in print. PEARL CUNNINGHAM. Blyth.

Dear Cousin Dorothy,—I am a little girl, nine years old. I live on a farm. My father has taken "The Farmer's Advocate" for one year. He does not know how he would do without it. We have eighteen head of cattle and six calves, three horses and eight pigs. I have several pets. I have one brother;

he is thirteen years old. I wish the Children's Corner every success.

HAZEL CUMMINGS (age 9). Chambers, Ont.

Dear Cousin Dorothy,—My father takes "The Farmer's Advocate." I enjoy reading it. I live on a farm. We have turkeys, geese, ducks, chickens and one pet pig. We have two little colts nearly the same age. I passed into the Junior Fourth class at midsummer. I have two sisters and one brother; their names are Gordon, Hazel and Nellie. I now close, wishing "The Farmer's Advocate" every success. LEATHA MANNING (age 8). Thamesville, Ont.

Dear Cousin Dorothy,—I now beg for just a little nook in the Children's Corner for my first letter. I always watch for "The Farmer's Advocate" to come so that I may read the letters in "your letter box." We have been taking "The Farmer's Advocate" for a good many years, and I don't think papa will stop from taking it for a good many more. I see so many of the other children's letters are about their pets. Well, we have not many. We have a collie dog named Fox. He is very pretty, and he shakes hands with you. Then I have a kitten named Tig; and we have about twelve little white rabbits with pink eyes. I think to exchange post cards is very nice, so I am going to ask someone to send me a picture post card of their town, but don't forget to put your address on it so I can send one back of Brantford.

LILLIAN MOTT. Box 39, Mt. Vernon, Ontario.

Dear Cousin Dorothy,—This is the second letter I have written to "The Farmer's Advocate," but as the first one went to the waste-paper basket, I thought I would try to write one that will be put in print, so I hope it will. We have just taken "The Farmer's Advocate" about a year, and I love to read the children's letters, and some of them are very interesting. We have two farms, and live two miles west of Roseville. We have a lot of poultry. We have 50 young ducks, 20 young geese, nine young turkeys and about 200 young chickens. I always feed them, except when I am away. I have taken fourteen music lessons, and like it very much. I have a nice lady teacher. I stopped school a little before Easter. I was going to try my Entrance, but I had to stop on account of the work. Wishing you every success.

LAURETTA FRIED (age 14). Oxford Co.

Write on one side of your paper only. C. D.

Dear Cousin Dorothy,—I am a little boy, seven years old. I am in the Part Second Book. I have a pup called Sport, and a dog called Nip. I have a colt, one year old, called Roxy. It is a chestnut, and is a great pet. We have about fifty little chickens, which my brother and I take care of. I have a kitten, whose name is Bena. We have thirty Ayrshire cattle, and father sold quite a few last winter. I hope you will think enough of my first letter to

print it in "The Farmer's Advocate." If I see it, I may write again. KENNETH W. DYMENT (age 7). Clappison's Corners, Ont.

Dear Cousin Dorothy,—This is my first letter to your "Corner." I enjoy reading the letters very much. My father has taken "The Farmer's Advocate" two years. Before, we thought it no good; now we can't do without it. I like the Children's Corner best of all. I tried for the Third Book in July. I live in the country. We have a big farm. I would rather live in the country than in the city. My father has twelve pigs, eleven calves, one hundred and eight chickens, and eighty-five hens, and 29 cows. I do not live far from school, for it is built on the north side of our farm. We have a cat and dog. The cat's name is Bess, and the dog's name is Collie. I will close with a few riddles:

1. Why does a chimney smoke? Ans.—'Cause it can't chew.
2. Which should I say, the yolk of an egg are white, or the yolk of an egg is white? Ans.—The yolk of an egg is yellow.
3. What runs and never flies, legless, wingless, has four eyes? Ans.—The Mississippi River.
4. Why is an old man like a window? Ans.—'Cause he is full of pains.
5. What is the difference between a quarter and a dollar? Ans.—A big difference. ELLEN KENNEDY. Lonsdale, Ont.

There are two kinds of religion: one consists of creeds, the other of deeds.

Feathertop; A Moralized Legend.

(Continued from page 1304.)

"Hold thou the pipe, my precious one," said she, "while I fill it for thee again."

It was sorrowful to behold how the fine gentleman began to fade back into a scarecrow while Mother Rigby shook the ashes out of the pipe and proceeded to replenish it from her tobacco box.

"Dickon," cried she, in her high, sharp tone, "another coal for this pipe!"

No sooner said than the intensely red speck of fire was glowing within the pipe bowl, and the scarecrow, without waiting for the witch's bidding, applied the tube to his lips and drew in a few short, convulsive whiffs, which soon, however, became regular and equable.

"Now, mine own heart's darling," quoth Mother Rigby, "whatever may happen to thee, thou must stick to thy pipe. Thy life is in it, and that, at least, thou knowest well, if thou knowest nought besides. Stick to thy pipe, I say! Smoke, puff, blow thy cloud, and tell the people, if any question be made, that it is for thy health, and that so the physician orders thee to do. And, sweet one, when thou shalt find thy pipe getting low, go apart into some corner, and (first filling thyself with smoke) cry sharply, 'Dickon, a fresh pipe of tobacco!' and, 'Dickon, another coal for my pipe!' and have it into thy pretty mouth as speedily as may be. Else, instead of a gallant gentleman in a gold-laced coat, thou wilt be but a jumble of sticks and tattered clothes, and a bag of straw, and a withered pumpkin! Now depart, my treasure, and good luck go with thee!"

"Never fear, mother!" said the figure, in a stout voice, and sending forth a courageous whiff of smoke, "I will thrive, if an honest man and a gentleman may!"

"O, thou wilt be the death of me!" cried the old witch, convulsed with laughter. "That was well said. If an honest man and a gentleman may! Thou playest thy part to perfection. Get along with thee for a smart fellow, and I will wager on thy head, as a man of pith and substance, with a brain, and what they call a heart, and all else that a man should have, against any other thing on two legs. I hold myself a better witch than yesterday, for thy sake. Did not I

make thee? And I defy any witch in New England to make such another! Here, take my staff along with thee!"

The staff, though it was but a plain oaken stick, immediately took the aspect of a gold-headed cane.

"That gold head has as much sense in it as thine own," said Mother Rigby, "and it will guide thee straight to the worshipful Master Gookin's door. Get thee gone, my pretty pet, my darling, my precious one, my treasure; and if any ask thy name, it is Feathertop. For thou hast a feather in thy hat, and I have thrust a handful of feathers into the hollow of thy head, and thy wig, too, is of the fashion they call Feathertop—so be Feathertop thy name!"

And, issuing from the cottage, Feathertop strode manfully towards town. Mother Rigby stood at the threshold, well pleased to see how the sunbeams glistened on him, as if all his magnificence were real, and how diligently and lovingly he smoked his pipe, and how handsomely he walked, in spite of a little stiffness of his legs. She watched him until out of sight, and threw a witch benediction after her darling, when a turn of the road snatched him from her view.

Betimes in the forenoon, when the principal street of the neighboring town was just at its acme of life and bustle, a stranger of very distinguished figure was seen on the sidewalk. His port as well as his garments betokened nothing short of nobility. He wore a richly-embroidered, plum-colored coat, a waistcoat of costly velvet, magnificently adorned with golden foliage, a pair of splendid scarlet breeches, and the finest and glossiest of white silk stockings. His head was covered with a peruke, so daintily powdered and adjusted that it would have been sacrilege to disorder it with a hat, which, therefore (and it was a gold-laced hat, set off with a snowy feather), he carried beneath his arm. On the breast of his coat glistened a star. He managed his gold-headed cane with an airy grace peculiar to the fine gentlemen of the period, and, to give the highest possible finish to his equipment, he had lace ruffles at his wrist, of a most ethereal delicacy, sufficiently avouching how idle and aristocratic must be the hands which they half concealed.

It was a remarkable point in the accoutrement of this brilliant per-

sonage, that he held in his left hand a fantastic kind of a pipe, with an exquisitely-painted bowl and an amber mouthpiece. This he applied to his lips as often as every five or six paces, and inhaled a deep whiff of smoke, which, after being retained a moment in his lungs, might be seen to eddy gracefully from his mouth and nostrils.

As may well be supposed, the street was all astir to find out the stranger's name.

"It is some great nobleman, beyond question," said one of the townspeople. "Do you see the star at his breast?"

"Nay, it is too bright to be seen," said another. "Yes, he must needs be a nobleman, as you say. But by what conveyance, think you, can his lordship have voyaged or travelled hither? There has been no vessel from the Old Country for a month past; and if he have arrived overland from the southward, pray where are his attendants and equipage?"

"He needs no equipage to set off his rank," remarked a third. "If he came among us in rags, nobility would shine through a hole in his elbow. I never saw such dignity of aspect. He has the old Norman blood in his veins, I warrant him."

"I rather take him to be a Dutchman, or one of your high Germans," said another citizen. "The men of those countries have always the pipe at their mouths."

"And so has a Turk," answered his companion. "But, in my judgment, this stranger hath been bred at the French court, and hath there learned politeness and grace of manner, which none understand so well as the nobility of France. That gait, now! A vulgar spectator might deem it stiff—he might call it a hitch and jerk—but, to my eye, it has an unspeakable majesty, and must have been acquired by constant observation of the deportment of the Grand Monarque. The stranger's character of office are evident enough. He is a French ambassador, come to treat with our rulers about the cession of Canada."

"More probably a Spaniard," said another, "and hence his yellow complexion; or, most likely, he is from Havana, or from some port on the Spanish Main, and comes to make investigation about the piracies which our governor is thought to connive at. Those settlers in Peru and Mexico have skins as yellow as the

gold which they dig out of their mines."

"Yellow or not," cried a lady, "he is a beautiful man!—so tall, so slender! such a fine, noble face, with so well-shaped a nose, and all that delicacy of expression about the mouth! And, bless me, how bright his star is! It positively shoots out flames."

"So do your eyes, fair lady," said the stranger, with a bow and flourish of his pipe, for he was just passing at the instant. "Upon my honor, they have quite dazzled me."

"Was ever so original and exquisite a compliment?" murmured the lady, in an ecstasy of delight.

Amid the general admiration excited by the stranger's appearance, there were only two dissenting voices. One was that of an impertinent cur, which, after snuffing at the heels of the glistening figure, put its tail between its legs and skulked into its master's back yard, vociferating an execrable howl. The other dissenter was a young child, who squalled at the fullest stretch of his lungs, and babbled some unintelligible nonsense about a pumpkin.

Feathertop meanwhile pursued his way along the street. Except for the few complimentary words to the lady, and now and then a slight inclination of the head in requital of the profound reverences of the bystanders, he seemed wholly absorbed in his pipe. There needed no other proof of his rank and consequence than the perfect equanimity with which he comported himself, while the curiosity and admiration of the town swelled almost into clamor around him. With a crowd gathering behind his footsteps, he finally reached the mansion house of the worshipful Justice Gookin, entered the gate, ascended the steps of the front door, and knocked. In the interim, before his summons was answered, the stranger was observed to shake the ashes out of his pipe.

"What did he say in that sharp voice?" inquired one of the spectators.

"Nay, I know not," answered his friend. "But the sun dazzles my eyes strangely. How dim and faded his lordship looks all of a sudden! Bless my wits, what is the matter with me?"

"The wonder is," said the other, "that his pipe, which was out only an instant ago, should be all alight again, and with the reddest coal I

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ever saw. There is something mysterious about this stranger. What a whiff of smoke was that! Dim and faded, did you call him? Why, as he turns about the star on his breast is all ablaze."

"It is, indeed," said his companion; "and it will go near to dazzle pretty Polly Gookin, whom I see peeping at it out of the chamber window."

The door being now opened, Feather-top turned to the crowd, made a stately bend of his body like a great man acknowledging the reverence of the meaner sort, and vanished into the house. There was a mysterious kind of a smile, if it might not be called a grin or grimace, upon his visage, but of all the throng that beheld him, not an individual appears to have possessed insight enough to detect the illusive character of the stranger, except a little child and a cur dog.

Our legend here loses somewhat of its continuity, and, passing over the preliminary explanation between Feather-top and the merchant, goes in quest of the pretty Polly Gookin. She was a damsel of soft, round figure, with light hair and blue eyes, and a fair, rosy face, which seemed neither very shrewd nor very simple. This young lady had caught a glimpse of the glistening stranger while standing at the threshold, and had forthwith put on a lace cap, a string of beads, her finest kerchief, and her stiffest damask petticoat, in preparation for the interview. Hurrying from her chamber to the parlor, she had ever since been viewing herself in the large looking-glass and practicing pretty airs—now a smile, now a ceremonious dignity of aspect, and now a softer smile than the former, kissing her hand likewise, tossing her head, and managing her fan, while within the mirror an unsubstantial little maid repeated every gesture and did all the foolish things that Polly did, but without making her ashamed of them. In short, it was the fault of Pretty Polly's ability rather than her will if she failed to be as complete an artifice as the illustrious Feather-top himself; and, when she thus tampered with her own simplicity, the witch's phantom might well hope to win her.

No sooner did Polly hear her father's gouty footsteps approaching the parlor door, accompanied with the stiff clatter of Feather-top's high-heeled shoes, than she seated herself bolt upright, and innocently began warbling a song.

"Polly! daughter Polly!" cried the old merchant. "Come hither, child."

Master Gookin's aspect, as he opened the door, was doubtful and troubled.

"This gentleman," continued he, presenting the stranger, "is the Chevalier Feather-top—nay, I beg his pardon, my Lord Feather-top—who hath brought me a token of remembrance from an ancient friend of mine. Pay your duty to his lordship, child, and honor him as his quality deserves."

After these few words of introduction the worshipful magistrate im-

mediately quitted the room. But even in that brief moment, had the fair Polly glanced aside at her father, instead of devoting herself wholly to the brilliant guest, she might have taken warning of some mischief nigh at hand. The old man was nervous, fidgety, and very pale. Purposing a smile of courtesy, he had deformed his face with a sort of galvanic grin, which, when Feather-top's back was turned, he exchanged for a scowl, at the same time shaking his fist and stamping his gouty foot—an incivility which brought its retribution along with it. The truth appears to have been that Mother Rigby's word of introduction, whatever it might be, had operated far more on the rich merchant's fears than on his good will. Moreover, being a man of wonderfully acute observation, he had noticed that the painted figures on the bowl of Feather-top's pipe were in motion. Looking more closely, he became convinced that these figures were a party of little demons, each duly provided with horns and a tail, and dancing hand in hand, with gestures of diabolical merriment, round the circumference of the pipe bowl. As if to confirm his suspicions, while Master Gookin ushered his guest along a dusky passage from his private room to the parlor, the star on Feather-top's breast had scintillated actual flames, and threw a flickering gleam upon the wall, the ceiling, and the floor.

With such sinister prognostics manifesting themselves on all hands, it is not to be marvelled at that the merchant should have felt that he was committing his daughter to a very questionable acquaintance. He cursed in his secret soul the insinuating elegance of Feather-top's manners, as this brilliant personage bowed, smiled, put his hand on his heart, inhaled a long whiff from his pipe, and enriched the atmosphere with the smoky vapor of a fragrant and visible sigh. Gladly would poor Master Gookin have thrust his dangerous guest into the street, but there was a constraint and terror within him. This respectable old gentleman, we fear, at an earlier period of life, had given some pledge or other to the evil principle, and perhaps was now to redeem it by the sacrifice of his daughter.

It so happened that the parlor door was partly of glass, shaded by a silken curtain, the folds of which hung a little awry. So strong was the merchant's interest in witnessing what was to ensue between the fair Polly and the gallant Feather-top, that, after quitting the room, he could by no means refrain from peeping through the crevice of the curtain.

But there was nothing very miraculous to be seen, nothing—except the trifles previously noticed—to confirm the idea of a supernatural peril environing the pretty Polly. The stranger, it is true, was evidently a thorough and practiced man of the world, systematic and self-possessed, and therefore the sort of a person to

(Continued on page 1335.)

About the House.

Still More About Our Farm Homes.

There has been a great deal written lately in "The Farmer's Advocate" about the planning of our farm homes, dealing mainly with the artistic and attractive side of the subject. This is all very important as far as it goes, but it does not go quite far enough. We want something on the practical side as well, and there are two or three little suggestions which might be made, which have not, I believe, been touched upon as yet, either in the written articles on the subject, or in any of the plans I have seen published in our own "old reliable."

The first of the suggestions is to advocate, very strongly, the addition of an upstairs balcony or piazza. When plan-

ning for a new house, the additional cost of carrying the porch or veranda up to the second story—and roofing it—would be comparatively slight, and the comfort would far outweigh the initial expense. Think of the wear and tear upon nerves and temper, not to speak of carpets and furniture, which would be saved if there were some convenient place where heavy beds, mattresses, etc., could be brought for airing and dusting, without the necessity of dragging them up and down stairs. Who does not know the inconvenience of having to go "all the way downstairs" whenever a garment needed brushing or shaking? Of course, in a city where one rubs elbows with one's neighbors on each side, and where one's out-door life is lived, more or less (generally more), in public, it is preferable to have this "general-purpose" veranda at the back of the house, but in the country, where one is not so much exposed to the "vulgar gaze of the public," it could very well

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be the second-story continuation of what our American cousins call "the front stoop." This upstairs piazza will also make a most inviting sitting-room; and as for the delights of sleeping there in the hot summer nights, when the air within the house feels like a blast from a furnace, they must be experienced to be properly appreciated. Three months of a scorchingly hot summer were made livable by sleeping out on the roof of a back piazza, fanned by the little vagrant breezes of the night, and watched over by the stars. Many delightful little lectures on astronomy beguiled the wakeful hours, and if, a couple of times, a sudden shower necessitated a hasty scamper inside for shelter, it only added zest to the enjoyment.

Another suggestion I would make would be to have a bedroom, or a room which could be used for that purpose in case of sickness, downstairs, with a bath-room or lavatory within convenient distance. This arrangement will save innumerable steps, and tend greatly to lighten the burden resting on the shoulders of the nurse, who is probably also the housemother, with all the thousand-and-one household duties calling for attention at the same time. This room should have a southern or eastern aspect if possible, and should be the sunniest room in the house, and should have plenty of window-space for both light and ventilation, so that the patient may obtain all the benefit to be derived from fresh air and sunshine. Another advantage in the downstairs sick-room is that it is possible to get a person who is not strong, or is convalescent, out into the open air, and for a walk or drive, so much sooner and more easily than where there is a "Hill of Difficulty" in the shape of stairs to be encountered whenever the attempt is to be made.

And have plenty of closets. To judge from the plan of the average architect, there seems to be an unwritten law declaring one closet in each bedroom sufficient to satisfy the most extravagant demands. These merely serve for the personal belongings of the occupants of those rooms, and in addition there should be a closet for the storing of trunks and boxes when not in use; a closet with shelves and hooks for holding clothing, etc., during the "off seasons"; a generous linen closet, fitted with shelves to suit the requirements of the house-supply; a shallow closet downstairs to hold the ever-growing collection of papers, magazines, books, etc. In the present age of cheap printing and ephemeral literature, these seem to have the multiplying powers of microbes, and unless there is some definite place to keep them, they are a continual heart-sick to the order-loving members of the family. When living in an old house, one has, of necessity, to make the best of one's surroundings, and fit into place as well as may be; but when building a new house, there is no reason in the world why it should not be made as convenient as possible, and if these things are included in the original plans, and provision made for extra piping, etc., at the time of erection, the additional expense, if any, will be inconsiderable.

All this has nothing to do with the beautifying of the farm home, except in so far that anything which tends to lessen labor will give more time and energy to spend on the esthetic side of home-making; and in the planning of "our new home" it is quite possible to combine the maximum of both beauty and convenience into an ideal whole.

When Vegetables are In.

Green Corn Fritters.—One quart of tender corn (or canned corn, drained), 1/2 pint sweet milk, three well-beaten eggs, 1 cup sifted flour, a teaspoon salt, tablespoon of melted butter, black pepper to season. Beat all well, and fry in spoonfuls. Brown well on both sides. (2) Make a quart of pancake batter, add 1 pint green corn and pepper and salt to taste. Fry as pancakes.

Stewed Cucumbers.—Select cucumbers that are too old for slicing, peel, and cut into quarters, taking out the seeds. Then cut the quarters into two or three pieces. Pour over enough rich brown sauce, or beef gravy to cover, and stew gently. Serve on buttered toast. (2) Slice fairly-ripe cucumbers lengthwise;

cook slowly in salted water; drain out, and serve with cream sauce.

Cucumber Sauce.—Whip stiff 1/2 cup heavy cream. Season with salt and cayenne, and add, gradually, 2 1/2 table-spoons vinegar. Pare 1 large cucumber and remove the seeds; grate the firm portion; season with onion juice, and beat lightly into the first mixture.

Baked Cabbage.—Boil a firm white cabbage in salt water 15 minutes. Pour off water and add fresh. Boil till tender, then strain, cool, and chop finely. Butter a dish, put the cabbage in it, and cover with a sauce made as follows: 1 tablespoon butter, 1 of flour, 1/2 pint of the water in which the cabbage was cooked (milk or cream may be used, if preferred); salt and pepper to taste. Stir over fire till smooth, add 4 table-spoons grated cheese if you have it. Pour all over the cabbage, and bake ten minutes in a hot oven.

Beets.—(1) Beets baked, then chopped finely, are much sweeter than when boiled in the ordinary way. May be served hot with butter or vinegar, or cold with salad dressing. (2) Beet Hash.—Chop beets that have stood in vinegar an hour or more; mix with an equal quantity of chopped potatoes. Season well with salt, pepper, and plenty of butter.

Stewed Red Cabbage.—Cut up, wash, and put in a pan with pepper, salt, and a piece of butter, but no more water than clings after washing. Let stew until tender; add 2 table-spoons vinegar; let boil up once, and serve with ham or sausage.

Tomatoes.—(1) Cut in halves; sprinkle with crumbs and bits of butter; bake, and serve on buttered toast. (2) Stew with a slice of onion and bit of celery, thicken slightly with flour, season, and pour over slices of buttered toast upon which poached eggs have been placed.

An Excellent Recipe.

Spiced Grape Catsup.—Set an earthen jar containing 6 lbs. grapes in a large vessel of boiling water, and cook until the skins burst; carefully strain off every particle of juice and return to the fire, adding to each quart of juice 1 pint granulated sugar, 1 cup vinegar, 2 table-spoons salt, a tablespoon whole cloves, half a grated nutmeg, a teaspoonful of ground allspice, and a tablespoonful of powdered cinnamon. Boil slowly about one hour, and seal. Delicious with game or fowl of any kind.

The Homesick Wanderer.

(Noah O'Mahoney, in Irish Monthly.)
"It stands a'ar 'midst happy, sunlit fields,

A little farmhouse, brown and old, With ancient, ivy-covered, buttressed walls,

A straw-thatched roof of gold; And I, a wanderer from the dusty town, Grown weary of its heavy ways, Wistful, from off the hot, white road, look down And long for the old days.

"For there the nights were blessed with quiet sleep,

The days were filled with happy cares, And there the skies seemed ever blue, and there

Was time for peace and prayers; While youth and laughter, joy and hope and love,

Sang in my heart a happy song. Ah, me! a song that's hushed for ever—more

The crowded streets among.

"And now I stand and gaze with heavy heart

Across dear fields in longing sore To where another woman, happier far, Looks from the low half-door.

O little farmhouse, old and brown and sweet,

I wake when all the world's at rest And think of you and long for the old peace

And the untroubled breast."

Recipes.

Breakfast Cake.—One cup sugar, 2 cups milk, 2-3 cup melted butter, 3 eggs, 4 cups "Five Roses" flour, 2 teaspoons cream tartar, 1 teaspoon soda.

Graham Rolls.—Two cups Graham meal, 1/2 cup "Five Roses" flour, 1 egg, 2 table-spoons cream tartar, 1 teaspoon soda, 1/2 cup sugar, a little salt.

Bleeding Piles Entirely Cured

WHEN THE DOCTOR'S TREATMENT AND SURGEON'S KNIFE FAILED CURE WAS EFFECTED BY

Dr. Chase's Ointment

For the benefit of persons who are accustomed to look upon bleeding piles as incurable, except by surgical operation, we quote the letter of a young school teacher, who, after frightful experience, undergoing an operation, which failed, was cured positively by Dr. Chase's Ointment.

Mr. Arthur Lepine, school teacher, Granite Hill, Muskoka, Ont., writes:—"I am taking the liberty of informing you for two years I suffered from bleeding piles, and lost each day about half a cup of blood. Last summer, I went to the Ottawa General Hospital to be operated on, and was under the influence of chloroform for one hour. For about two months I was better, but my old trouble returned, and again I lost much blood. One of my doctors told me I would have to undergo an operation, but I would not consent.

"My father, proprietor of the Richelieu Hotel, Ottawa, advised me to use Dr. Chase's Ointment, and two boxes cured me. I did not lose any blood after beginning this treatment, and I have every reason to believe that the cure is a permanent one. I gratefully recommend Dr. Chase's Ointment as the best treatment in the world for bleeding piles." Dr. Chase's Ointment, 60 cents a box, at all dealers, or Edmanson, Bates & Co., Toronto.

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caseine web catches a third to half the cream. You stand that loss just as long as you use pans or cans for they haven't enough skimming force to take out all the cream. But, just the minute you commence using Sharples Dairy Tubular Cream Separator, you stop that loss.

Sharples Dairy Tubular Cream Separators have 10,000 times more skimming force than pans or cans, and twice as much as any other separator. They get all the cream—get it quick—get it free from dirt and in the best condition for making Gilt Edge Butter. Caseine don't bother the Tubular. The Tubular is positively certain to greatly increase your dairy profits, so write at once for catalog 1-15 and our valuable free book, "Business Dairying."

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THE gold winner. Young ginseng roots and seeds for sale at lowest rates by C. H. Renick, Woodstock, Ont.

GOSSIP.

Hugh A. Allan, Knoll Farm, Pointe Claire, P. Q., advertises two Southdown rams—one two-shear and one aged.

Mr. J. R. Johnson, Springford, Oxford Co., advertises that, on October 19th, he will sell 20 imported Clydesdale fillies, by auction, at Woodstock, Ont., of which further particulars will be given later.

SALE DATES CLAIMED.

Aug. 29th.—J. G. Clark, Ottawa, Ayrshires, Clydesdale and Yorkshires.

Sept. 7th.—J. A. Cochrane, Compton, Que., at Sherbrooke, Shorthorns.

October 10th.—T. H. Medcraft & Sons, Sparta, Ont., Shorthorns and Shropshires.

October 12th.—Scottish Shorthorns, at Inverness, Macdonald, Fraser & Co., Perth.

October 19th.—J. R. Johnson, Springford, Ont., imported Clydesdale fillies.

October 24th.—T. E. Robson, Ilderton, Ont., Shorthorns.

October 25th.—H. J. Davis, Woodstock, Shorthorns.

Jan. 9th, 1907.—W. C. Edwards & Co., Rockland, Ont., annual sale, Shorthorns.

HILLHURST SHORTHORN DISPERSION.

Following are some notes on the bulls in the Hillhurst Shorthorn dispersion sale, property of Mr. J. A. Cochrane, Compton, Que., to take place on the exhibition grounds, Sherbrooke, Que., Sept. 7th: Broad Scotch is an excellent sample of the blocky, North Country type, by the Collynie-bred Scottish Hero, and out of Butterfly 49th (bred by Marr, of Cairnbrogie), which may be remembered as one of the beautiful young herd of roans from Hillhurst, shown at Toronto in 1900. He has proved himself an impressive sire on the dairy families, as the bull calves in the sale will testify. Golden Carol is a worthy son of Golden Drop Victor, chief stock bull in the Cargill herd, and inherits the thick flesh and level quarters of his great sire. He is sure; a quick worker, and ought to prove a successful cross on the many cows and heifers well gone in calf to him, two of which should have calves at foot at sale time. The eleven bull calves, four of which will be sold with their dams, are all the get of Broad Scotch, and should please breeders and farmers who are looking for a combination of beef and milk. They certainly prove by their appearance that meat is not lacking in the milking strains, while indications are evident of greater scale at maturity than is seen in the strictly beef-producing sorts—bulls from which are persistently neglected by farmers because of the want of milking properties. In a word, they are fitted for that widest field of usefulness—the production of good big milking cows and profitable steers, either for export or home consumption as "baby beef." One of the most promising is Ingram Benedict, in whose breeding is combined the highest types of the English, Scotch and American utility Shorthorns, the blood of Towneley, Beau Benedict, Indian Chief, Pansy by Blaize, and Scottish Archer. Donald Hillhurst, Dandy Scot and Scottish Dairyman are of the Knightley Cold Cream tribe. Famous Scot is a growthy red, with much of the Bates style, shown by the Filigrees, which are a deep-milking family. Fitz Gloucester promises to make a bull of great scale—low down, lengthy, with straight top and under lines.

Hillhurst farm having been sold, Mr. Cochrane is disposing of the entire herd of Shorthorns, which, for breeding and usefulness, ranks among the best in the Dominion. The sale occurs the second week of the Toronto Exhibition, after the stock is judged there. Leaving Toronto Wednesday or Thursday night, one can be in Sherbrooke next day before noon. Special excursion single-fare rates to Sherbrooke Exhibition will be available from Brockville and Carleton Junction. The prospect is that good bargains will be going at this sale, and buyers will get big value for their money. It is rarely that the combination of beef, milk and breeding is found in such degree as is realized in the Hillhurst herd. Send for the catalogue; study its contents, and take in the sale.

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GRAHAM BROS.' NEW IMPORTATION.

There never was a time when the Cairnbrogie stud was as strong as it is just now, either numerically, or in point of quality. The latest importation, landed a few days ago, was made up of eight Clydesdale stallions, three Clydesdale fillies, and nine Hackney stallions, also a pair of Clydesdale geldings weighing 2,100 lbs. each. They are, King Harry, a bay six-year-old, by Prince Thomas, that won first and championship at the Royal and Highland Society shows last, and was barred from showing this year; the other, Best of All, a bay five-year-old, by Royal Favorite, that last year, at above shows, came second to King Harry, and this year won everything in sight. This pair will be an eye-opener for Canadians at Toronto Exhibition. At the head of the list of Clydesdale stallions is the mighty Durbar, that, as a two-year-old at the H. A. S. S., in a class of 29, took second place, being only beaten by the champion of champions, Baron's Best. This year he won first at the Highland and first at Edinburgh, besides hosts of other prizes to his credit. He is sired by Baron's Pride, and was a high-priced premium horse for the last three years. Centurian is a bay two-year-old, by Up-to-Time, a very large colt of great scale and quality, and will certainly be heard from, both in the show-ring and in the stud. Master Maurice is a black three-year-old, by Good as Gold, a quality horse all over, and a fairly good size, one of the stylish, natty kind. Imperial is a bay two-year-old, by the great Everlasting, that this year won first at Hamilton, Sanquhar and Dalbeattie, and second at Edinburgh, a grand type of big-quality Clyde. Colonial is a brown two-year-old, by Woodend Gartley, that this year won second at Gatehouse and Castle Douglas shows. He is a big-quality colt all over, and very smooth. King's Arms is a brown two-year-old, by Rosario, another very large colt, stylish on top, and lots of quality. He was never shown, but is capable of winning some. The Favorite is a bay yearling, by Mains of Airdrie. This year he was first at Inverness, second at Edinburgh, and second at Aberdeen in a class of 19. This is a rare good colt, combining size and quality to a marked degree, and the colt that beats him at Toronto will have to go some. Blacon's Swagger is another bay yearling, by Drumflower, a big, rough colt that will certainly develop into an extra good kind. The fillies are already sold. Suffice it to say, it is doubtful if their equal will cross the water this year.

In Hackney stallions, an outstanding winner is Dalton King, chestnut, five years old, 15.2½ hands high, by Garton Duke of Connaught, dam by Danegelt. As a three-year-old, he was first at Polkington and Market Weighton, and second at London. As a four-year-old, he was first at Driffield, and second at Malton and Birkenhead. This year he was third at London, on the line, and second in harness, being beaten only by the great Administrator, and the horse

that beats him in Toronto will have to go some sure. Colorito is a chestnut four-year-old, by the mighty Rosador, dam by Agility. This year he was first at Leeds, and second at Polkington. He is a show horse all over. Baltimore is a chestnut three-year-old, a full brother to the champion Rosary, and, of course, a son of Rosador. He was only shown as a yearling, when he won first at Polkington and Market Weighton. He has size, quality, smoothness, style and action. Look out for him at Toronto. Crayte Mikado is a bay two-year-old, by Garton Duke of Connaught, dam by Lord Derby 2nd. He won this year, second at Polkington and Market Weighton, being only beaten by his \$12,500 half-brother. He also won third at London, and is a mighty broody-looking colt, with style and action galore. Space forbids a more extended individual mention. Suffice it to say, the rest are just as high a classed lot. They are Bonus, chestnut four-year-old, by St. Thomas; Linden Renown, bay four-year-old, by Danegelt's Son; Terrington Cleopatra's Son, chestnut two-year-old, by Clifton 3rd; Inverness St. Thomas, chestnut yearling, by St. Thomas; Admaston Nugget, chestnut one-year-old, by Goldfinder 6th. All told, in the stables just now are 75 head, several of the Clydesdale stallions having just ended up a very heavy season, notably Right Forward, by Prince Thomas; Baron Alister, by Baron's Pride; Cairngorm, by Lord Douglas; Lord McClure, by Airdrie; Lord Onslow, by Baron Robgill; Celtic Pride, by Stately City, and the great old stock horse, MacQueen. Graham Bros. will have 35 horses on exhibition at Toronto. Look them up. Long-distance Bell telephone connection at farm, Claremont, Ont., 25 miles east of Toronto, on C. P. R.

Readers of "The Farmer's Advocate" interested in Shorthorn cattle and Southdown sheep will be pleased to learn that Mr. George Miller, Markham, Ont., will, the latter part of September (date to be announced later), hold a dispersion sale of his entire herd of Shorthorns and flock of Southdowns. This is positively the last chance that will ever be offered to the breeders of this country of getting representative blood of what was a few years ago the most noted herd in Canada, namely the Right-foot herd of the late Geordie Miller.

The Canadian National Exhibition, at Toronto, this year will be especially strong in the breeding classes, more than the usual number of both horses and cattle having been imported for the occasion. Some of the Clydesdales are from the most famous studs in Scotland; but it is in Hackneys that the Exhibition will appear to best advantage compared with previous years. Several prominent breeders have purchased in England, during the last month or two, a number of prize-winning Hackneys from such studs as those of the Walter Gilbey, Sir Gilbert Gosnell and Baroness Burdett-Coutts.

Feathertop; a Moralized Legend. (Continued).

whom a parent ought not to confide a simple young girl, without due watchfulness for the result. The worthy magistrate, who had been conversant with all degrees and qualities of mankind, could not but perceive every motion and gesture of the distinguished Feathertop came in its proper place; nothing had been left rude or native in him; a well-digested conventionalism had incorporated itself thoroughly with his substance, and transformed him into a work of art. Perhaps it was this peculiarity that invested him with a species of ghastliness and awe. It is the effect of any thing completely and consummately artificial in human shape, that the person impresses us as an unreality, and as having hardly pith enough to cast a shadow upon the floor. As regarded Feathertop, all this resulted in a wild, extravagant and fantastical impression, as if his life and being were akin to the smoke that curled upward from his pipe.

But pretty Polly Gookin felt not thus. The pair were now promenading the room; Feathertop with his dainty stride and no less dainty grimace; the girl with a native maidenly grace, just touched, not spoiled, by a slightly affected manner, which seemed caught from the perfect artifice of her companion. The longer the interview continued, the more charmed was pretty Polly, until, within the first quarter of an hour (as the old magistrate noted by his watch), she was evidently beginning to be in love. Nor need it have been witchcraft that subdued her in such a hurry; the poor child's heart, it may be, was so very fervent that it melted her with its own warmth, as reflected from the hollow semblance of a lover. No matter what Feathertop said, his words found depth and reverberation in her ear; no matter what he did, his action was heroic to her eye. And by this time it is to be supposed that there was a blush on Polly's cheek, a tender smile about her mouth, and a liquid softness in her glance; while the star kept coruscating on Feathertop's breast, and the little demons careered with more frantic merriment than ever about the circumference of his pipe bowl. O pretty Polly Gookin, why should these imps rejoice so madly that a silly maiden's heart was about to be given to a shadow! Is it so unusual a misfortune, so rare a triumph?

By and by Feathertop paused, and, throwing himself into an imposing attitude, seemed to summon the fair girl to survey his figure and resist him longer if she could. His star, his embroidery, his buckles, glowed, at that instant with unutterable splendor; the picturesque hues of his attire took a richer depth of coloring; there was a gleam and polish over his whole presence, betokening the perfect witchery of well-ordered manners. The maiden raised her eyes, and suffered them to linger upon her companion with a bashful and admiring gaze. Then, as if desirous of judging what value her own simple comeliness might have side by side with so much brilliancy, she cast a glance towards the full-length looking-glass in front of which they happened to be standing. It was one of the truest plates in the world, and incapable of flattery. No sooner did the images therein reflected meet Polly's eye than she shrieked, shrank from the stranger's side, gazed at him for a moment in the wildest dismay, and sank insensible upon the floor. Feathertop had likewise looked towards the mirror, and there beheld, not the glittering mockery of his outside show, but a picture of the sordid patchwork of his real composition, stripped of all witchcraft. The wretched simulacrum! We almost pity him. He threw up his arms with an expression of despair that went further than any of his previous manifestations towards vindicating his claims to be reckoned human; for, perchance the only time since this so often empty and

deceptive life of mortals began its course, an illusion had seen and fully recognized itself.

Mother Rigby was seated by her kitchen hearth in the twilight of this eventful day, and had just shaken the ashes out of a new pipe, when she heard a hurried tramp along the road. Yet it did not seem so much the tramp of human footsteps as the clatter of sticks or the rattling of dry bones.

"Ha!" thought the old witch, "what step is that? Whose skeleton is out of its grave now, I wonder?"

A figure burst headlong into the cottage door. It was Feathertop! His pipe was still alight; the star still flamed upon his breast; the embroidery still glowed upon his garments; nor had he lost, in any degree or manner that could be estimated, the aspect that assimilated him with our mortal brotherhood. But yet, in some indescribable way (as is the case with all that has deluded us when once found out), the poor reality was felt beneath the cunning artifice.

"What has gone wrong?" demanded the witch. "Did yonder sniffling hypocrite thrust my darling from his door? The villain! I'll set twenty-five fiends to torment him till he offer thee his daughter on his bended knees!"

"No, mother," said Feathertop, despondingly, "it was not that." "Did the girl scorn my precious one?" asked Mother Rigby, her fierce eyes glowing like two coals of Tophet. "I'll cover her face with pimples! Her nose shall be as red as the coal in thy pipe! Her front teeth shall drop out! In a week hence she will not be worth the having!"

"Let her alone, mother," answered poor Feathertop; "the girl was half won, and methinks a kiss from her sweet lips might have made me altogether human. But," he added, after a brief pause, "I've seen myself, mother! I've seen myself for the wretched, ragged, empty thing I am! I'll exist no longer!"

Snatching the pipe from his mouth, he flung it with all his might against the chimney, and at the same instant sank upon the floor, a medley of straw and tattered garments, with some sticks protruding from the heap and a shrivelled pumpkin in the midst. The eyeholes were now lustreless, but the rudely-carved gap, that just before had been a mouth, still seemed to twist itself into a despairing grin, and was so far human.

"Poor fellow!" quoth Mother Rigby, with a rueful glance at the relics of her ill-fated contrivance. "My poor, dear, pretty Feathertop! There are thousands upon thousands of coxcombs and charlatans in the world, made up of just such a jumble of worn-out, forgotten and good-for-nothing trash as he was! Yet they live in fair repute, and never see themselves for what they are. And why should my poor puppet be the only one to know himself and perish for it?"

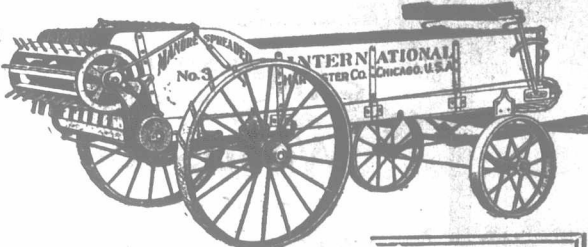
While thus muttering, the witch had filled a fresh pipe of tobacco, and held the stem between her fingers, as doubtful whether to thrust it into her own mouth or Feathertop's.

"Poor Feathertop!" she continued. "I could easily give him another chance and send him forth again to-morrow. But no, his feelings are too tender, his sensibilities too deep. He seems to have too much heart to bustle for his own advantage in such an empty and heartless world. Well! Well! I'll make a scarecrow of him after all. 'Tis an innocent and a useful vocation, and will suit my darling well; and, if each of his human brethren had as fit a one, 'twould be better for mankind; and, as for this pipe of tobacco, I need it more than he."

So saying, Mother Rigby put the stem between her lips. "Dickon!" cried she, in her high, sharp tone, "another coal for my pipe!"—[Hawthorne, in "Mosses from an Old Manse."]

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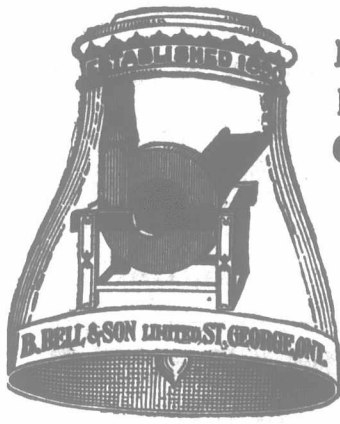
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PRICE: \$7.50 to \$8.00 per acre near railway; \$6.50 to \$7.50 per acre back from railway. In blocks of 5,000 acres and over, a special price of \$5.50 to \$6.50 per acre is given.

TERMS: Retail, \$2.00 per acre cash; wholesale (5,000-acre blocks), \$1.25 per acre cash. Balance in five equal annual installments; interest at 6 per cent.

ATTRACTIVE: Rich soil, mild climate, good markets, good railway facilities, cheap fuel, etc.

For map, printed matter and other information, address:

C.A. Magrath, Land Commissioner Lethbridge, Alberta.

Osler, Hammond & Nanton, Winnipeg, Man.

NOTE—In 1905 the first car of winter wheat was shipped from Lethbridge on August 15th.

Daroid ROOFING.

The most economical siding and

ROOFING.

Extra strong felt, extra saturation, slate colored, no tar, does not taint rain water; spark, cinders, heat and cold proof. Don't take an imitation. Get the genuine. Send for Free Sample and name of nearest dealer. Book of poultry and farm building plans sent for 2c stamp. F. W. BIRD & SON, Makers. Established 1817, Hamilton, Ontario. Originators of roofing 36¢ free in every roll.

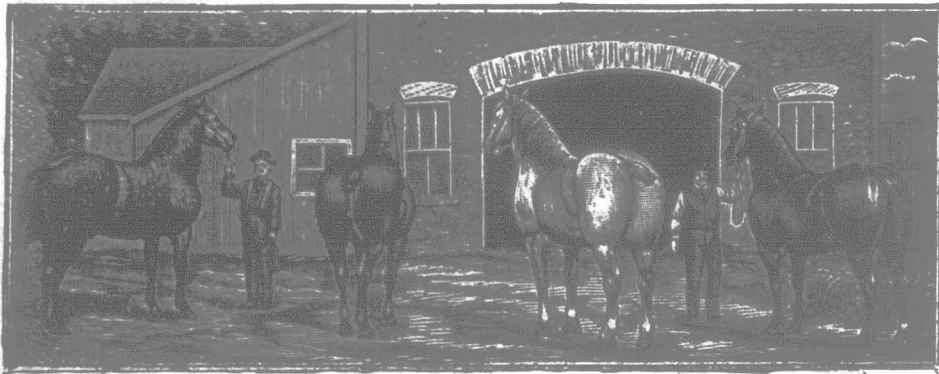
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AGENTS WANTED. G. M. Annable, Moose Jaw, Sask.

Improved and Unimproved Farms For Sale in the Famous Moose Jaw Wheat Belt.

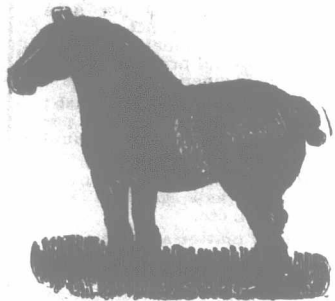
Prices and terms right. We sell on half-crop payments. Have some snaps on 5,000 and 10,000 acre tracts in Saskatchewan and Alberta. Correspondence solicited.



30 PERCHERONS

Also Shires, Hackneys and Clydes and 12 Percheron Mares (3, 2 and 1 year old) have just arrived with our new importation from Scotland, England and France, of high-class stallions and mares. Many of them prizewinners in their native lands. Bred by the best breeders. Percherons, blacks and grays, weighing 1,600 to 2,000 pounds. Shires at two years old weighing 1,700 pounds. Clydes, bays and blacks, 4 and 5 years old, weighing 1,800 to 2,000 pounds, bred by the best in Scotland. Our Hackneys are bays and chestnuts, combining size, quality and breeding that cannot be beaten. These horses can be seen at Toronto and London fairs, and all for sale at reasonable prices.

HAMILTON & HAWTHORNE, Simcoe, Ont.
82 miles south-west of Toronto on the G. T. R.



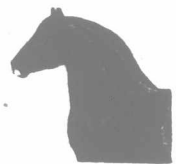
GRAHAM BROS.

"Calmbrogie," CLAREMONT,

IMPORTERS OF

HACKNEYS and CLYDESDALES

Established 30 years, and winners at all large shows in Canada and United States. Best of stock always on hand for sale. New importation of Royal winners just arrived.



Graham & Renfrew's CLYDESDALES and HACKNEYS

Our Clydes now on hand are all prizewinners, their breeding is gilt-edged. 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 4483.

GRAHAM & RENFREW, BEDFORD PARK, ONT.

42 Imp. Clydesdale Fillies and One Stallion



Just arrived from Scotland, representing the blood of Scotland's greatest sires; one, two and three years of age. Several of them in foal. A number of them Old Country winners. Size and quality was my standard. They are all for sale at living prices.

Geo. A. Brodie, Bethesda P. O., Stouffville Sta.
Local Phone connection.

DUNROBIN CLYDESDALES.



14 imp., 5 Canadian-bred; from 1 to 5 years of age. The get of such cracks as Everlasting, Acme, Mains of Airies, Goldfinder, Prince of Roxborough, Olympus, Royal Blend, Up-to-Time, Sentry, Rozelle, and Carbineer. All three years and over in foal. A high-class lot, with size and quality. Will be sold worth the money.

DONALD GUNN & SON, BEAVERTON P. O. & STN.
A number of choice young Yorkshires, both sexes. Phone connection.

Tudhope Carriages



There's a Tudhope in charge of Tudhope Carriages from start to finish. A Tudhope buys all the materials—a Tudhope superintends the construction—a Tudhope attends to the sales—and all know their business. Making a Tudhope Carriage has always been a family affair, since the first one was turned out in 1855.

TUDHOPE No. 85

Extension Top Surrey. Wide seats—high spring back and spring cushions. Top, as well as rear seat, may be detached when desired. Richly finished throughout. Most popular family carriage made.

Write for our free illustrated catalogue.

THE TUDHOPE CARRIAGE CO., Limited — ORILLIA, Ont.

GOSSIP.

HOLSTEIN-FRIESIAN A. R. O. RULES.

At the last annual meeting, held on June 6th, at Syracuse, N. Y., the following changes were made in the Rules of the Advanced Registry:

Amending Rule 4th so that bulls may no longer be admitted to advanced registry on description; only such as may have four or more A. R. O. daughters being now eligible to entry.

Amending Rule 5th so that cows may no longer be admitted to advanced registry on private records; only those having made official records being now eligible to entry.

Amending Rule 5th of the Special Rules for Official Tests to read as follows: During the test period, no condiments, condition powders or drugs shall be given, and only pure water for drink.

Dry foods may be softened with water, but no other liquid. Salt, sulphur and wood ashes may be given. But nothing in this rule shall be taken as forbidding proper medical attendance by a regularly qualified veterinarian upon a sick cow.

In any such case, the owner of the cow, or person in charge shall make a statement in writing over his signature and affidavit, describing the condition of the cow, and reporting all medicines given;

which statement shall also be signed and attested by the veterinarian called. The supervisor of the test shall also, over his own signature, add to the statement the declaration that, to the best of his knowledge and belief, the conditions were as stated, and that he approved of the treatment given the cow. Such statement and declaration shall be considered as forming part of the application for entry of the record in the Advanced Register.

Enacting a rule that to entitle a cow to compete for prizes on a record begun more than eight months after calving, an interval of not less than 120 days must elapse between the seven-day period of the prior record and the seven-day period of the "eight-months record" following, and made during the same period of lactation.—M. H. Gardner, Supt.

THE PENITENTIARY FOR REBATERS.

Farmers, says the Saturday Evening Post, are the great bulwark against socialism. Hence disciples of Marx will take a hopeful view of all disclosures which show that the buying of grain has been, to an important extent, thrown into the hands of a combine that is founded upon discriminatory freight rates. No better method of converting farmers into advocates for government ownership of common carriers could be desired. People who do not care to see socialistic ranks recruited from the agricultural class will not view the disclosures so cheerfully.

It is rather disturbing to notice that whenever a probe has been inserted in railroad practices of late, rebates or their equivalents have been exposed—notwithstanding many solemn assurances to the contrary. We think the public now fully realizes that rebates—or fake commissions, collusive underbidding, or whatever form the favor to the big shipper may take—are robbery. For a while, the carriers may have found in public apathy a certain excuse for the system. They have no such excuse now. In law and morals and public opinion, the railroad president who sanctions discriminations is no better than a thief. The old plea about having to give rebates or lose traffic will not answer. Burglary, highway robbery and other crimes can also plead that they are profitable.

Senator Dolliver said the other day that with railroad accounts open to inspection under the new law discriminations must cease unless the roads chose to descend to the level of common felons and resort to forgery and perjury. This states the case clearly. What lies before railroad managers is a simple, squarely defined opportunity to elect whether or not they will be felons. We trust they will make the proper election without having to receive a shocking object-lesson in the form of a goodly contingent of traffic officials immured in penal institutions. Unless we are much mistaken as to the public temper, perseverance in rate discriminations, under whatever guise, will be cured in the penitentiary if it cannot be corrected short of that.

The only way to keep kindness is to keep it in circulation.

The world owes every man a living, but it is a debt that he has to hustle to collect.

In the review, on page 1225 of "The Farmer's Advocate," of August 2nd, of the high-class Clydesdales at Dunrobin Stock Farm, Beaverton, Ont., property of Messrs. D. Gunn & Son, Mr. R. E. Gunn is referred to as proprietor, whereas Mr. Donald Gunn, of Gunn's Limited, Toronto, is senior partner of the firm, and Mr. R. E. Gunn is junior member and manager.

The champion absent-minded man of Bedford, Mass., on one occasion called upon his old friend and family physician. After a chat of a couple of hours, the doctor saw him to the door and bade him good-night, saying:

"Come again. Family all well, I suppose?"

"My heavens!" exclaimed Mr. Carrow. "that reminds me of my errand; My wife is in a fit!"

HYDROMANIA.

Wall Street has discovered a flourishing concern hitherto overlooked—and is "floating" it with a capitalization of forty million dollars. Last year the house advertised capital and surplus of five millions. However, the promoters' circular assures us that there are now ten millions of actual assets, leaving only thirty millions of water which a thirsty public may purchase in any quantity from a hoghead—or fifty shares—up. The promoters are not very keen, either—or else they mistrust that the public's absorbent capacity is not as great as it used to be—for they declare this year's estimated profits would support an even larger capitalization. We welcome this "floatation." For some weeks the Street had seemed dull. Its great stock-watering industry had languished. We were afraid East River had gone dry. What a dismal change was that from the brisk days when anybody who could estimate a profit anywhere immediately capitalized it and listed the shares; when the diligent traction magnates seemed to keep spotters on the street, and, if they learned that more than ten people were boarding a car at one time, instantly issued a dollar of new securities against each extra nickel that the conductor would turn in! We feared that the high financiers had lost their grip, or that the public had grown uninterestingly cautious. This new promotion—although a modest one in its way—gives us renewed hope. It suggests a recurrence to the dear, fundamental facts that the globe is three-fifths water and its inhabitants at least one-third suckers.—[Saturday Evening Post.]

QUESTIONS AND ANSWERS. Miscellaneous.

YEAST TREATMENT FOR MARES.

A well-known horseman, here, says the yeast treatment is worth nothing for mares which are hard to get in foal. Is he right? G. L.

Ans.—The best arbiter is experience. Let us hear from those who have tried it. Of course, there are some mares which a ton of yeast would never cause to conceive, as, for instance, those possessing some mechanical impediment to successful coition, or some disease of the ovaries. The yeast treatment for barrenness is, however, recommended by expert veterinary authority, and one failure, due to certain causes, does not prove it worthless.

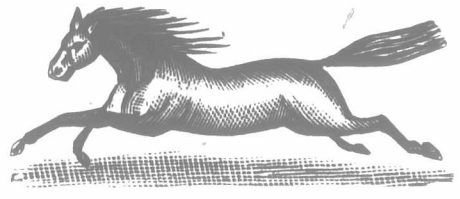
COW POX.

My cows have very sore teats. They break out in pimples, then they break and run matter. The teat is simply covered with them, and they are going from one cow to another. J. E. R.

Ans.—This is cow pox, a rather troublesome and very contagious disease. Care must be taken not to convey it from one cow to another on the milker's hands, clothes, etc. Dress the sores, three times daily, with the following ointment, viz.: Boracic acid, 4 drams; carbolic acid, 20 drops; vaseline, 2 ounces. Mix.

HORSE OWNERS! USE
CAUSTIC BALSAM.
 A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all blemishes from horses. Impossible to produce scar or bluish. Send for descriptive circulars.
THE LAWRENCE-WILLIAMS CO., Toronto, Can.

The Repository
BURNS & SHEPPARD, Props.



Cor. Simcoe and Nelson Sts., Toronto
 Auction Sales of

Horses, Carriages, Buggies, Harness etc., every Tuesday and Friday, at 11 o'clock
 Special Sales of Thoroughbred Stock conducted
 Consignments solicited. Correspondence will receive prompt attention.

This is the best market in Canada for either buyer or seller. Nearly two hundred horses sold each week.

SHOE BOILS
 Are Hard to Cure, yet
ABSORBINE

will remove them and leave no blemish. Does not blister or remove the hair. Cures any puff or swelling. Horse can be worked \$2.00 per bottle, delivered. Book 6-C Free. **ABSORBINE, JR.** for man, \$1.00 per bottle. Cures Boils, Bruises, Old Sores, Swellings, Varicose Veins, Varicocele, Hydrocele. Always Pain
W. F. Young, P. O. F., 78 Monmouth St., Springfield, Mass.
 Canadian Agents, Lyman, Bone & Co., Montreal.

DR. McGAHEY'S HEAVE CURE
 for Broken-winded Horses. The only medicine in the world that will stop heaves in three days, but for a permanent cure it requires from one-half to one bottle used according to directions. Price, \$1.50 per bottle. The **Dr. McGAHEY Medicine Co., Kempsville, Ontario.**

No more blind horses—For Specific Ophthalmia, Moon Blindness and other sore eyes. **BARRY CO., Iowa City, Iowa,** have sure cure.

ABERDEEN ANGUS CATTLE
 For sale: a few good females of all ages, by imp. bull. Will sell right.

WALTER HALL, Washington, Ontario.
 Drumbo Station.

ONTARIO'S LARGEST AND FINEST HERD OF HEREFORDS.—We sell our beauties to breeders all over Canada, because we sell our stock at much below their value. Come with the rest and get some of the bargains in 25 bulls a year old and over, 25 heifers and 30 cows, or write to have us save you some. (Farm inside the corporation of the town.) **A. S. HUNTER, Durham, Ont.**

BROXWOOD HEREFORDS.

A few choice bull calves from my imported stock.

R. J. PENHALL, NOBER P. O., ONT.

THE SUNNYSIDE HEREFORDS
 Twelve high-class bull calves and 4 yearling and 2 year-old bull, we will place at a price that will move them quick. Some choice cows and heifers are yet left for sale. Address:
A. F. O'NEIL, Maple Grove P. O. or M. H. O'NEIL, Southgate P. O. Ilderton Stn., L. E. & B.; Luona Stn., G. T.

FOREST VIEW FARM HEREFORDS
 Four bulls from 8 to 18 months old, prize-winners and from prize-winning stock. Several heifers bred on the same lines; choice individuals for sale.
JOHN A. GOVENLOCK, Forest Sta. and P. O.

HEREFORDS—We are now offering a few thick, smooth young bulls and a number of females—a low-down, even, beefy lot. If in want of something extra good, correspond with us. We can please you.
J. A. LOVERING, Coldwater P. O. and Stn.

Aberdeen-Angus bull for sale, Black Diamond, No. 826, 3 years old this spring. A good individual and show stock getter; has never been beaten in show-ring. Price reasonable. Also one Chester White boar, old enough for service.
A. G. SPAFFORD, Compton, Que.

GOSSIP.

No fewer than 8,000 animals will be on view at one time at the Canadian National Exhibition in Toronto, August 27th to September 10th, composed of 1,400 horses, 1,000 cattle, 550 sheep, 600 swine, 900 dogs, 300 cats, and 3,000 poultry and pet stock.

An old-time English barrister was John Williams, a sarcastic wit and a bachelor with an intense prejudice against marriage. His clerk one day asked him for a holiday to get married, and some months afterward, on entering his chamber, Williams found his dead body suspended from the door. He engaged another clerk, and asked him if he was married. "No," the clerk replied; but thinking that Williams would regard marriage as a guarantee of steadiness, he added, "but I am going to be." "Very well," replied Williams; "but understand this—when you hang yourself don't do it here!"

SUNNYSIDE SHORTHORNS.

Sunnyside Shorthorns, the property of Mr. James Gibb, Brookside, Ont., a few miles from Woodstock, were never in better bloom than when recently seen by "The Farmer's Advocate" field man. The 40-odd head, of low-down, thick-fleshed, mellow-handling Scotch beauties, as they lazily lay in the shade of a friendly tree, were busy switching the myriads of flies that this, of all years, literally cover them, or were contentedly chewing their cud, and presented a sight pleasing to the eye of a Shorthorn admirer, representing the blood of the unbeaten champion, Spicy Marquis (imp.), Brave Ythan (imp.), Bapton Chancellor (imp.), Golden Drop Victor (imp.), Clan Alpine, Livy, Lyddite, Spicy Baron and Luxury. And on the dam's side representing such fashionable strains as the Rubys, Hawthorn Blossoms, Lady Annes, Lady of the Boynes, Red Ladys, Minas and Early Buds. At the head of the herd is the grandly-bred and beautifully-moulded bull, Blythesome Ruler 55236, by Imp. Chief Ruler, dam Missie 159th (imp.), by Spicy Robin. As a description of his superior individual excellence, we need only to say he was four times at leading exhibitions and always got well up. Second in service is Trout Creek Stamp 67660, an Undine-bred bull, by Imp. Pride of Windsor, dam Imp. Princess of Pitlivie, by the Missie-bred bull, Sir Wilfred Laurier. He is a roan yearling, strictly modern in his make-up, the making of a show bull. Their predecessor was Imp. Brave Ythan, by Spicy Baron, dam Lady Ythan 12th, by the \$6,000 Brave Archer, and ahead of him was the invincible champion, Spicy Marquis (imp.). Among the females is Imp. Rustic Beauty, by Clan Alpine, dam Ruby 20th, by Queen's Guard. She has a rare good seven-months-old roan bull calf, by Brave Ythan—a cracker. Hawthorn 25th (imp.), by Luxury (King Edward's stock bull), dam by Prince Horace, has a wonderful nice white heifer calf, by Brave Ythan, that will certainly make a show animal. Hawthorn Blossom 11th (imp.), by Livy, dam by Masterpiece, has an eight-months-old red bull calf, by Brave Ythan, that is a show calf all over. Lady Scott (imp.) by Clan Alpine, dam Lady Annie 16th, by Nero, has a six-months-old roan heifer calf, an extra good one. Hawthorn Blossom 13th (imp.), by Lyddite, dam by Livy, is in calf to the present stock bull. Lady of the Boyne 4th (imp.), by President, dam by Master of the Ring, is also in calf. Her four-year-old daughter, Lady of the Boyne 9th (imp.), by Consul, and her daughter by Douglas of Clun (imp.), with herself, make a trio of this favorite strain that are certainly good ones. Other good ones are Red Lady 3rd, by Imp. Bapton Chancellor, Mina C 2nd, by Imp. Golden Drop Victor, and Early Bud 6th (by G. D. V. (imp.)), whose last year's calf won third at Toronto. Enough has been said as to the breeding of the herd. Although we have said nothing about Spicy Marquis' daughters, of whom there are several, all of them extra good ones, of which there are two yearling and six two-year-old heifers, and two six-months-old heifer calves. Anything in the herd, male or female, can be bought worth the money. Mr. Gibb's address is Brookside P. O.

"The farmer's trade is one of worth: He's partner with the sky and earth, And partner with the sun and rain: And no man loses by his gain."

Feeding lambs, thin stuff, were bought at Chicago stock-yards, Aug. 13th, at \$6.80, the highest point of the season. Idaho lambs of choice quality brought \$7.85.

Mrs. Thomas Johnson Smith was being married for the fourth time in the little country church in which she had been raised. The ceremony was proceeding with all solemnity until the minister reached the point: "Who gives this woman to this man to be his wife?" and a voice away back in the congregation replied, "I generally do."

A very successful sale of Shorthorns, the property of Mr. Daniel Arkell, was held by Messrs. John Thornton & Co., at Butler's Court, Lechlade, England, on July 25th. The average for 58 head was £52 18s. 10d. Mr. S. Sanday gave 140 gs. for Frost 108th; Mr. E. S. Godsell, 135 gs. for Frost 95th; and Mr. W. T. Garne, 125 gs. for Lady Denman. Mr. Sanday also gave 91 gs. for Frost 122nd; Mr. J. H. Yeomans, 85 gs. for Frost 119th, and the whole herd made good prices. It may be of interest to Canadian breeders to note that there are a number of representatives of this excellent and popular "Frost" family in the Hillhurst herd of Mr. Jas. A. Cochran, of Compton, Que., to be dispersed by auction at Sherbrooke, on September 7th, during the week of the exhibition there, as advertised in this paper.

A NOTED HEREFORD HERD.

It will be a revelation to the majority of the readers of "The Farmer's Advocate" to learn that in Norfolk County, Ont., is located one of the highest-class herds of imported Hereford cattle in Canada, owned by Mr. R. J. Penhall, whose P. O. address is Nober, a gentleman who, up to three years ago, stood among the leading Hereford breeders in England, and who bred at least three bulls that headed the herd of the late lamented Queen Victoria, and who also bred three herd headers used by Mr. John Price, acknowledged to be the greatest Hereford breeder in England. Boniface, no doubt one of the greatest stock bulls ever owned in England, was bred by Mr. Penhall, who also bred Christmas Rose, Armour's great sweepstakes cow, and has a full sister of hers now in the herd, Holly (imp.), for which he has been dared to name a price. She was considered to be equally as good a cow as her illustrious sister. There are also several of her daughters and granddaughters now in the herd. Every animal in this herd is a descendant of Royal winners, and not one of the foundation cows cost Mr. Penhall less than 250 guineas (\$1,300). The herd now numbers 30 head, all imported or the get of imported stock, carrying the blood of such notables as Sir Garnet 10684, Llewellyn 19530, Horace Hardwick 8748, Lord Wilton 4740, and The Grove 3rd 5051. The present stock bull is Corporal (imp.), sired by the great show bull, The Peer, dam College Belle, a noted show cow, by Stockton Wilton, a son of Lord Wilton. Corporal is a massive, thick-fleshed, 2,400-lb. bull of grand quality throughout, a winner himself, and will go the round again this year. In young stuff, there is one yearling bull, by Corporal, and out of the grand cow, Matchless (imp.), that from present appearances should make something extra good. Matchless is from the same dam as Major, first and champion at the Hereford & Worcestershire show, and first as a yearling, and reserve champion to Cameronian at the Royal Show, at Derby, this year, and recently sold for export to Argentina, South America, at a long price. Also there are four good bull calves coming on. Broxwood Stock Farm lies five miles north-west of Jarvis Station, and one mile from Townsend, Michigan Central R. R.; telephone, Villa Nova. It is well equipped for the care and comfort of the splendid herd, and the surroundings are most beautiful—evergreen hedges, nicely trimmed, giving the place a very pleasing appearance. We welcome to Canada so noted a breeder of Herefords, and bespeak for him a share of the patronage of lovers of the Whitefaces and breeders and feeders of profitable beef cattle.

Shorthorns
ARTHUR JOHNSTON

Greenwood, Ont.,
 Offers for sale, at moderate prices,

7 Imported Cows and Heifers
 198 (calves at foot) s 198

11½ Yearling Heifers (all Scotch),

2½ Yearling bulls, including a **Marr Glara.**

1 Crimson Flower, and **One Daisy.**

PURE SCOTCH
SHORTHORNS

Herd bull: Imp. Prime Favorite -45214-
 a Marr Princess Royal.

Imp. Scottish Pride -36106-, a Marr Rann Lady.

Present offering
 2 imported bulls.
 15 young bulls.
 10 imported cows with heifer calves at foot and bred again.
 20 one- and two-year-old heifers.

Visitors welcome. New catalogue just issued.
W. G. PETTIT & SONS, Freeman, Ont.
 Burlington Jct. Sta. Long-distance telephone in residence.

KENWOOD STOCK FARM.
SHORTHORNS.

Headed by (Imp.) Jilt Victor -45187-, 10 grand young bulls; also heifers; from imp. and home-bred cows, for sale. Choice Lincoln sheep; Berkshire and Tamworth hogs offered.

HAINING BRGS., Highgate, Ont. Kent Co.

SHORTHORN BULLS
 FOR SALE

1 roan calf, 15 months old, of the Duchess of Gloster family.
 1 roan, two years old, from imp. sire and dam. Also a number of good registered Clyde mares.
JOHN MILLER, Brougham, Ont.

SHORTHORNS.
 We have for sale several young heifers and cows, which we are offering at a bargain; also two young bulls, one by Derby Imp., our noted bull. Young Derby is in good trim for fall shows. **W. J. SHEAN & CO., Box 886, Owen Sound, Ontario.**


SPRING VALLEY SHORTHORNS.
 Herd headed by Imp. Bapton Chancellor -40889- (7828). A choice lot of females, mostly with calves at foot or safe in calf. Also a good six-month-old bull calf. Inspection and correspondence invited.
KYLE BROS., Ayr P. O.
 Ayr, C.P.R.; Paris, G.T.E.

MAPLE HILL STOCK FARM.—Scotch Shorthorns of the best families. Young stock for sale of either sex, sired by the grandly-bred bull, Wanderer's Star -56868-.
Wm. R. Elliott & Sons, Guelph, Ont.

Teacher.—Johnny, how many different kinds of force are there?
 Johnny.—Three kinds.
 Teacher.—Name them.
 Johnny.—Bodily force, mental force and police force.—[Philadelphia Ledger.]

DODD'S KIDNEY PILLS
 CURES ALL KIDNEY DISEASES
 RHEUMATISM
 BRIGHT'S DISEASE
 DIABETES SACCHARUM
 GRAVEL
 GOUT
 NEURALGIA
 MIGRAINE
 SCIATICA
 BRUISES
 SWELLINGS
 PAINFUL URINATION
 SANDS IN URINE
 GRAVEL IN URINE
 GRAVEL IN BILLS
 GRAVEL IN BLADDER
 GRAVEL IN KIDNEYS
 GRAVEL IN SPINE
 GRAVEL IN JOINTS
 GRAVEL IN MUSCLES
 GRAVEL IN TENDONS
 GRAVEL IN LIGAMENTS
 GRAVEL IN BONES
 GRAVEL IN SKIN
 GRAVEL IN HAIR
 GRAVEL IN NAILS
 GRAVEL IN EYES
 GRAVEL IN EARS
 GRAVEL IN NOSE
 GRAVEL IN THROAT
 GRAVEL IN LUNGS
 GRAVEL IN STOMACH
 GRAVEL IN LIVER
 GRAVEL IN SPLEEN
 GRAVEL IN PANCREAS
 GRAVEL IN PROSTATE
 GRAVEL IN UTERUS
 GRAVEL IN VAGINA
 GRAVEL IN BOWEL
 GRAVEL IN BLADDER
 GRAVEL IN KIDNEYS
 GRAVEL IN SPINE
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 GRAVEL IN UTERUS
 GRAVEL IN VAGINA
 GRAVEL IN BOWEL
 GRAVEL IN BLADDER
 GRAVEL IN KIDNEYS

Lump Jaw



The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

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

We Will Rent

For a term of years our 600-acre farm—over 400 acres of No. 1 farm land and 200 acres of enclosed bush and broken land. It has a good house, and convenient stable room for over 100 head of cattle, 20 horses, 100 sheep, and 60 pigs. It is in the very best state of cultivation, and has a never-failing creek near both ends of farm. It is a magnificent stock farm, in one of the most prosperous sections in Ontario. It will be rented in one block or in divisions.

Fitzgerald Bros., Mount St. Louis
Simcoe Co., Ontario.

The Ontario Veterinary College, Ltd.
Temperance St., TORONTO, Canada.

Affiliated with the University of Toronto.
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THE HAYES BULLETIN

DEVOTED TO ASTHMA & HAY-FEVER.

Issued quarterly, containing short articles on the origin and cause, and the principles involved in the successful treatment of Asthma and Hay-Fever. Special Hay-Fever and Summer Asthma number now ready.

Free on request.
DR. HAYES, Dept. D. D.,
Buffalo, N. Y.

DURHAM CATTLE FOR SALE

I have for sale two young bulls, 8 months old, sired by Imp. Rustic Chief = 4019 = (79877); also a few females, among them a young cow fit for any show-ring.

HUGH THOMSON,
Box 556 St. Mary's, Ont.

Wm. Grainger & Son



Hawthorn herd of deep-milking Shorthorns. Aberdeen Hero (Imp.) at head of herd. Three grand young bulls, also females, all ages. Prices reasonable.

Londesboro Station and P. O.

ELM GROVE SHORTHORNS

We have for sale some good young cows and heifers of the Fealton and Belle Forest families, in calf to Scottish Rex (Imp.) or Village Earl (Imp.), our present herd bull. For prices and particulars address

W. G. SANDERS & SON,
Box 1123, St. Thomas, Ont.

SHORTHORNS & CLYDESDALES FOR SALE

Bull in service: Scotland's Fame = 47897 =, by Nonpareil Archer (Imp.) (61778) = 45202 =, dam Flora 51st (Imp.), (Vol. 19.) Present offerings: Two heifers rising 1 year old, two bulls rising 1 year old; also young cows and heifers of good quality and breeding, mostly well gone with calf. Also stallion rising 1 year old, sired by the well-known Macqueen, dam from imported sire and dam, and one filly rising one year, sired by King's Crest (Imp.). Will sell at a bargain if taken soon.

For Sale: Two Young Shorthorn Bulls

Also Cows and Heifers, and one good Imp. York. Sow, also a good Yorkshire Boar one year old. Good breeding and good animals

DAVID MILNE, ETHEL, ONT.

E. Jeffs & Son, BOND HEAD, breeders of Shorthorns, Leicesters, Berkshires, and Buff Orpington Fowl. Eggs per setting (15), \$1.00. Choice young stock for sale. Write for prices or come and see.

LAKEVIEW SHORTHORNS.

Spicy King (Imp.) at head of herd. Young bulls for sale reasonably. For prices, etc., apply to

THOS. ALLIN & BROS., Oshawa, Ont.

ROSEDALE SHORTHORNS

Do you want a profitable cow with calf at foot, and bred again; also heifers bred and heifer calves from imported stock. Choice milk strains. Write: **A. M. SHAVER, Ancaster, Ont.** Hamilton station

PROSPECT STOCK FARM, Shorthorn Bulls, including Gold Mine (Imp. in dam), also some choice young females. Stations: Cooksville and Streetsville, C.P.E.; Brampton, G.T.R. Peel Co. **F. A. Gardner, Britannia, Ont.**

GOSSIP

That scientist who says that some people can get along without stomachs may have been influenced in his opinion by seeing how well some people get along without brains.

The circuit of leading exhibitions in the Maritime Provinces starts at St. John, Sept. 1st to 8th; Sussex, Sept. 10th to 15th; Chatham, Sept. 17th to 21st; Halifax, Sept. 22nd to October 5th, and Charlottetown, October 8th to 12th. These dates permit stock breeders to start their entries at St. John, Sept. 1st, and follow the whole Maritime-Province circuit of fairs with their stock.

Ten horses landed in Toronto last week direct from the country estates of King Edward VII. and Lord Rothschild. They are Shire horses, once the great horse of the armored knights in the wars and tournaments, and now the leading breed for draft purposes in England. Nine of the lot have long records as winners at English shows of Shire or Clydesdale stock, the odd one being a weanling filly, only once shown at Peterborough and a second-prize winner. They will be exhibited but not entered for competition, at the exhibitions at Toronto, August 27th to September 6th; Ottawa and London, September 7th to 15th, and at Kansas City the following week. Lord Rothschild owns five and King Edward as many, his consignment being three fillies and a pair of geldings, all bred at Sandringham. The geldings stand over 17 hands high, and weigh over a ton each. Lord Rothschild sends as one of his five, the brown stallion, Girton Charmer, junior champion of the London Shire Horse Show, of 1904, and champion in 1905. The horses came direct from Sandringham and Lord Rothschild's farm, Tring Place, in Herts. The importation, it is hoped, will stimulate the breeding of Shire horses. The Shire breeders are to be congratulated on their enterprise in securing this lot of exhibition horses to represent the breed in this country.

WHAT KEEPING A RECORD OF THE COWS MEANS.

At the meeting of the Ontario Dairy-men's Association, Prof. Dean gave the following instance of the value to a Canadian cheese factory patron in keeping a record of his cows:

"There is a young man—he happens to be in the audience to-day—who started out three or four years ago with a herd of twelve cows. He sent their milk to the factory, and they yielded him about \$30 per head per year. I asked him why he did not keep a record of his cows. He agreed to do so. At the end of the first year he told me the cows had produced about \$45 per head. He brought about the improvement by studying the returns from each cow and feeding them accordingly. He was able to pick out the worst cows, which he disposed of, replacing them with better cows bought from his neighbors who did not know their value. He continued this practice till 1902, when his returns were \$60 per cow. In 1903 he had 13 cows from which he got \$818 worth of milk, which is practically \$70 per head. What I do say is that if he had not kept the record, he could not have reached the high standard."

Prof. Dean was followed by Mr. G. C. Creelman, who hit off the way the farmer pays no attention to this advice, as follows:

"The pertinent question arises, What are we going to do about it? No doubt the majority will go home, and nothing will be done. It seems to me that we ought not to be so slow in taking up things that have already been proven. It seems to me that when farmers work as hard as they do, when hired help is so scarce, you should realize the necessity of going a step farther and buying a balance at the cost of a dollar and taking time to test your milk so that you may know which cows are paying for their board, and which are eating their heads off. If you are convinced a thing is right, go ahead and take advantage of it."

Sure enough, why should not the dairy farmer take all the advantage he can of such a situation?

The list of judges for St. John, N. B., Exhibition in the classes of live stock is as follows: Horses (heavy)—C. M. Macrae, Ottawa; horses (light)—Dr. J. Standish, Walkerton, Ont.; cattle (dairy)—W. F. Stephen, Huntingdon, Que.; cattle (beef)—Duncan Anderson; sheep—C. M. Macrae; swine—Duncan Anderson, Rugby, Ont.; poultry—Sharpe Butterfield, Windsor, Ont.

DRAFT HORSES ARE SCARCE.

About the busiest man in stock-yard circles now, says the Live-stock World, is the horse buyer, especially if he has an order for drafters concealed about his person. They are advancing rapidly in price, and when lumbermen attempt to secure their regular winter supply next month pyrotechnics are promised. There never was such a scarcity of drafters as confronts the trade at present. A Chicago man spent two weeks in getting a whole carload. On his return a New York man offered him a big profit, and then did not get the stuff. These big horses are up \$10 to \$15 this week, and they are going so much higher that dealers do not like the outlook.

MILKING BY BULL POWER.

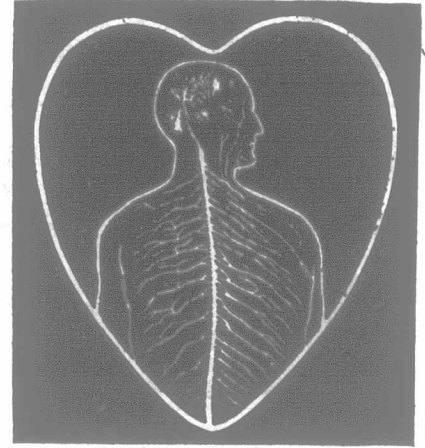
The bull is quite generally used in connection with the tread-power and farm separator to separate cream. The Pierce Land and Cattle Co., at Riverside, Cal., who own one of the largest herds of Holstein cattle on the Pacific coast, have recently installed eight milking machines, which will run by the tread-power and the bull.

One of the best features of the milking machine, is the fact that the milk can be obtained absolutely free from dirt and outside contamination. The question looks as if it was not far from practical solution.—[Hoard's Dairyman.]

T. PORTER'S JERSEYS.

One mile from G. T. R. and C. P. R. stations, at Toronto Junction, and half a mile from Davenport Station, can be seen the splendid Jersey herd of over forty head, all light fawns, the property of Mr. Thompson Porter, whose address is Carleton West, Ont. This, without doubt, is one of the best herds in the country. They are an exceptionally even lot, there being no small, scraggy animals among them, but all are extra large, with deep, level bodies, carrying large, even udders, large teats, and, what is of great importance, they have extra good records as producers. In the herd are heifers, rising three years, that are giving 43 lbs. of milk a day; others, rising two years, giving 28 lbs., and older ones that give from 45 to 48 lbs. a day. The milk of four of them was officially tested, and showed 5.8-10 of butter-fat. Pauline, a 46-lb. a day cow, has produced 1 gallon of cream a day. All of which goes to show that as producers this herd has few equals. In fact, last year, including heifers, the whole herd made Mr. Porter in cash from \$100 to \$115 each from the sale of their product. Then, again, as a show herd they compare favorably with any in the country. The young bull, Porter's Pedro Pogs, that won first at Toronto last fall in the senior yearling class, has improved immensely, and we look for him to repeat the trick this fall. Also the cow, Pauline, that won fourth last fall, will be in prime shape for this year, and will probably come higher. Several others, from calves up, that will be on hand to try conclusions at Toronto, are in show shape and will surprise the talent, as their type is perfect and quality gilt-edged. They all belong to the noted St. Lambert strain. The present herd headers are the Cooper-bred Blue Bell's Fox of Linden Grove, by Blue Bell's Blue Fox, a son of Imp. Flying Fox, dam Lady Fox's Sweet Dolly (Imp.). He is a young bull of ideal form, and will certainly make a winner. The other is Golden Fox of Dentonia, by Arthur's Golden Fox, dam L. Nellie of Dentonia, a daughter of Flying Fox's Brunette, sweepstakes winner at Toronto, for whom Mrs. Massey refused \$1,500. With two such high-class sires at the head of the herd, improvement must necessarily go on. Anything in the herd is for sale. There are 40 females in calf. Mr. Porter reports the demand for Jerseys as steadily on the increase. During the past year he has shipped to different States, and practically all over Canada. Write him to Carleton West P. O.

MILBURN'S Heart and Nerve Pills.



Are a specific for all diseases and disorders arising from a run-down condition of the heart or nerve system, such as Palpitation of the Heart, Nervous Prostration, Nervousness, Sleeplessness, Faint and Dizzy Spells, Brain Fog, etc. They are especially beneficial to women troubled with irregular menstruation.

Price 50 cents per box, or 8 for \$1.25. All dealers, or **THE T. MILBURN CO., LIMITED,** Toronto, Ont.

Shorthorns OF SCOTCH BREEDING.

Imported cows and heifers for sale at easy prices, also Canadian-bred females all ages, and a fine collection of young bulls from six to sixteen months old—imported and Canadian-bred. New importation due home August 26. Inspection invited.

H. J. Davis,

Importer and breeder of Shorthorns and Yorkshires.
WOODSTOCK, ONT.
C. P. R. and G. T. R. Main Lines.

Spring Grove Stock Farm

Shorthorn Cattle and Lincoln Sheep

First herd prize and sweepstakes, Toronto Exhibition, 8 years in succession. Herd headed by the imported Dutch-bred bull, Rosy Morning, and White Hall Ramadon. Present crop of calves sired by Imp. Prince Sunbeam, 1st, Toronto, 1906.

High-class Shorthorns of all ages for sale. Also prize-winning Lincolns. Apply

T. E. ROBSON, Ilderton, Ont.

SHORTHORNS AND BERKSHIRES.

For sale: 2 very fine pure Scotch bulls fit for service; also 2 boars of bacon type fit for service, and grand young sows bred to Imp. boar, 25 males and females (Berks). 2 and 3 months old.

S. J. PEARSON, SON & CO., MEADOWVALE, ONT.
Stations: Streetsville and Meadowvale, C. P. R.

GEO. D. FLETCHER,

Breeder of Scotch Shorthorn Cattle, Yorkshire Pigs,

and S.-C. White Leghorn fowl. Herd headed by the Dutch-bred bull (Imp.) Joy of Morning = 39070 =, winner of first prize at Dominion Exhibition, Toronto, 1903. Young stock for sale. Eggs for hatching 75c. per setting.

Binkham P. O., Ont. Erin Station and Telegraph

Glenoro Stock Farm

SHORTHORNS AND LINCOLNS.

Imp. Marr Roan Ladies, Missies, Broadhooks and Miss Ramsdens. Three choice young bulls for sale. 100 Head of Dudding-bred Lincolns. Grand crop of ram and ewe lambs. Twelve choice yearling rams for sale.

A. D. McGUGAN, Rodney, Ont.

For Sale—The stock bull, Queenston Archer = 48898 =, by Derby (Imp.) dam Veronica (Imp.) by Brave Archer (Imp.); also a number of choice Shropshire ram lambs at reasonable prices.
BELL BROS., Bradford, Ont.

High-class Shorthorns—We are now offering 5 young bulls and 3 heifers, two, three and four years of age. Marigolds, the eldest, a daughter of Imp. Royal Member, has a calf at foot by Sailor Champion. This is an extra good lot.
THOS. REDMOND, Millbrook P.O. and Stn.

TRADE TOPICS.

THE CENTRAL BUSINESS COLLEGE, OF TORONTO.—By referring to our advertising columns, our readers will note the invitation of the above well-known school to all interested in practical business education to write for a copy of its interesting catalogue. This school is admitted to be the best of its kind in Canada.

A FREE BOOK FOR THE DAIRYMAN.—A new 24-page book is being given away by the Sharples Separator Co., of West Chester, Pa., which takes up the subject of business dairying and the science of making cows pay. Wasted food is wasted money, as every dairyman knows. "Business Dairying" tells in a practical way what foods are best for the dairyman to feed and why. It also touches on the care of milk and cream, butter-making, churning, working and packing, as well as how much milk for a pound of butter. The selling value of cream is another point taken up, and how wastes can be turned into profit. A close study of "Business Dairying" will reveal many ways to the intelligent dairyman for cutting off losses and improving every opportunity to save. Another feature of the book is "Stable Hints and Suggestions," and the value of manures. The points to be observed in judging cows should be helpful in selecting dairy cattle. This is illustrated with table of points to be considered and diagram of the perfect dairy cow. Profitable dairying is in the "knowing how," and this book tells in a brief, intelligent way how to reduce the cost of milk production and how to cut off the waste. A postal card addressed to the Sharples Company as above will secure you the book without cost. Be sure to mention this paper when writing for "Business Dairying."

THE DAIN HAY PRESS.—The hay press manufactured by The Dain Manufacturing Co., of Preston, Ont., is an all-Canadian machine, built by Canadian workmen from Canadian material. A large number of these presses have been sold to Farmer's Advocate readers, all of whom, so far as we are aware, are well satisfied with their purchases. For one thing, it is convenient for any user to get repairs—a point in favor of the Dain as compared with foreign-made implements. The machine is noted for its capacity; 15 tons being looked upon as an average day's work. The Dain is a full-circle press, with two feeds to the circle, and by means of the pull rod the heavy pitman is done away with, and the horses require to step over only a 7-inch bed reach, while others have from 12 to 14 inches, and require a bridge, etc. Either two or three wires can be used on the Dain, and special attention is drawn to the tucker or folding device used on this machine, which makes the bales as smooth on the top as the bottom. No tufty, bunched bales come out of the Dain. This is a very advantageous feature for loading the cars, as bales can be packed tightly. Bales can be made from any weight up to 200 lbs. This machine can be set on almost any approach or slope to a barn. Men who use them claim that they have never had any trouble in this regard. Capacity, convenience and durability were the aims of the inventor of this hay press. The Dain people do not claim to have a cheap machine, but one which has greater capacity and greater durability than any other offered to the Canadian trade. It is fully protected by patents. The Dain Manfg. Co., Preston, will carefully give any information intending purchasers may desire.

GOSSIP.

Geo. Amos & Son, Moffat, Ont., in ordering a change in their advertisement of Shorthorn cattle, write: "Our herd is doing well, having an abundance of pasture owing to the wet season. We have several high-class young bulls and young cows and heifers of good Scotch breeding that will make herd headers and cows suitable to start herds. We will be showing at the Canadian National Exhibition, at Toronto, three sons and five daughters of our late stock bull, Imp. Old Lancaster, last year's champion, and will be pleased to meet our old friends and also new ones."

QUESTIONS AND ANSWERS. Miscellaneous.

SAND VETCH AS A SOILING CROP.

I would like to know something about sand vetches as a soiling crop. Would they do with fall rye for early crop next year?

S. G.

Temiskaming Dist., Ont.

Ans.—Although the sand or hairy vetch is about the best orchard cover crop that can be grown, we cannot speak so confidently of its value for soiling purposes. However, it is stated on good authority that where it stands the winter, a combination of vetch and winter rye makes a luxuriant and satisfactory soiling crop, but whether the sand vetch has any particular advantage over the common winter vetch for this purpose is not clear. The latter is more upright in its habit of growth, is more easily harvested, and is less tough in the stems. Let us hear from any who have had experience in growing either sand vetch or common vetch, particularly the former.

MARL.

I would like to have accompanying mineral specimen analyzed to see if it is the kind of clay that fine china is made from. If not, I would like to know what mineral it contains.

F. A. H.

Ans.—The sample sent is not a clay, but a marl of very good quality, from which an excellent Portland cement might be made. The clay from which china is made is a product of feldspar, known as albite. Marl, on the other hand, is a calcareous product. The clay referred to abounds in England and other countries, where large industries have been built up in manufacturing it. The cement business in this country has been rather overdone in recent years, but if a large quantity of the marl exists in proximity to an ample supply of clay, it might be possible to exploit a cement-manufacturing enterprise here on a basis which might compete successfully with the numerous other Canadian and American plants already producing this commodity on an extensive scale.

BLACK KNOT ON CHERRY TREES.

I have about a dozen cherry trees which are affected with black knot. Last spring I cut out all the black knot. Now some of the trees are just covered with knot, while others are not so bad. The orchard has been in sod for several years. I am told black knot is caused by a sourness in the land. Do you think that possible?

1. Please give the cause of black knot.
2. What should I do with the trees?
3. Would fruit grown on the trees be fit to use?

R. H.

Ans.—Black knot is caused by a fungus, and in the swellings produced, insects often find good breeding places, a fact which explains their presence in many old knots. Early in spring, when growth starts, the swellings begin to appear. During May and June, a crop of spores is produced upon the surface of the knots, causing them to appear as if coated with a thin layer of velvet. This soon disappears, and the knot becomes darker until winter, when it is jet black. In November and December, the knot may be seen covered with minute black elevations, on which the winter spores are borne. These are distributed during the latter part of winter. The spores generally gain entrance into the trees at the crotches of small limbs, and at the junction of annual growths. The following spring, the formation of new swellings may be seen at the edges of the old knots. Cut out all knots and burn as soon as discovered. In addition, thoroughly spray with Bordeaux mixture in the warm days of early spring before growth starts, and again when the buds are about to burst. Spray again about the latter part of May or first of June, and again the middle or latter part of June. Very often it is found that a radical pruning and generous fertilization with hen manure will invigorate the trees and enable them to resist the fungus. The writer practiced this on a couple of dozen trees five or six years ago, and now every one has as clean and thrifty a top and bears as nice a crop of cherries as could be wished. Fruit grown on knot-infested trees is liable to be a poor sample, but there is nothing poisonous about it, so far as we are aware.

"THE BREED THAT FIRST MADE HILLHURST FAMOUS."

Great Dispersion Sale

OF

Hillhurst Farm Shorthorns

The farm having been sold, the entire Shorthorn herd will be closed out by auction on

FRIDAY, SEPTEMBER 7th, 1906

On the Fair Grounds of the Great Eastern Exhibition, SHERBROOKE, P. Q.

33 females (four with calves at foot), 8 bulls and bull calves, comprising six picked Scotch heifers, bought at W. C. Edwards & Co.'s 1905 sale, imported English and Canadian milking families, chiefly of the Scotch-Bates breeding now so popular in Great Britain. Several high-class show animals are included.

CAPT. T. E. ROBSON, } Auctioneers. Catalogues on application.
G. H. KERR & CO., }

Jas. A. Cochrane, Compton, P. Q.



SCOTCH SHORTHORNS

9 heifers, yearlings. 4 bulls, yearlings.
29 heifers, calves. 27 bulls, calves.

All out of imported sires and dams.
Prices easy. Catalogue.

JOHN GLANCY, H. GARGILL & SON,
Manager. Cargill, Ont.

Maple Shade Shropshires AND CRUICKSHANK SHORTHORNS.

We offer about thirty extra good yearling rams of our own breeding, among them some ideal flock headers; also a few home-bred yearling ewes. Twenty imported yearling rams and thirty imported ewes the same age. Bred by Buttar, Farmer and other breeders of note in England. All are for sale at moderate prices.

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

Westside Shorthorn Herd and Border Leicester Flock.

All Registered in the Herd and Flock Books of Great Britain.

We invite all interested to inspect the cattle and sheep on this farm. The Shorthorns are long tried families, tracing to the pioneer herds of Scotland through channels of repute. The Border Leicester flock is one of the oldest in Scotland, and embraces blood of the highest breeding. Selections for Sale. Visitors from the States and Canada will be cordially welcomed.

A. Cameron & Sons, Westside Farm, Brechin, Scotland.

CEDARDALE SHORTHORNS



For immediate sale: Four young bulls and a few heifers, a nice thick, well-put-up lot, and bred on heavy-milking lines. Will be sold cheap.

DR. T. S. SPROULE, M.P.,
Markdale, Ont.

Shorthorn Cattle and Lincoln Sheep

Shorthorn bulls, cows and heifers for sale at greatly reduced prices for the next 60 days.

J. T. GIBSON, Denfield, Ont.

Pine Grove Stock Farm.

Breeders of High-class Scotch Shorthorns, Choice Shropshire Sheep, Clydesdale and Hackney Horses.

Herd catalogue on application. Address: **JAMES SMITH, Supt., Rockland, Ont.** W. C. EDWARDS & Co., Limited Props. Ont.

SUNNYSIDE STOCK FARM



For sale: The two-year-old show bull, Blythsome Ruler—22365. Also cows and heifers in calf.

JAMES GIBB,
Brooksdale, Ont.

JOHN GARDHOUSE & SONS, Highfield P.O., Ont.

Breeders of Scotch and Scotch-topped Shorthorns, Lincoln and Leicester Sheep and Shire Horses.

A good selection of young stock of both sexes always on hand for sale. Scottish Prince (Imp.), Vol. 49, at head of herd. Royal Albert (Imp.), 20807, at head of stud. Farms 24 miles from Weston, G. T. R. and C. P. R., and electric cars from Toronto.

BELMAR PARK SHORTHORNS

10 bull calves. 16 heifers under two years. All of the choicest breeding and practically all of show-yard quality. You can buy anything in the herd at a reasonable figure.

JOHN DOUGLAS, PETER WHITE, JR.,
Manager. Pembroke, Ont.

SHORTHORN BULLS and HEIFERS

Sired by the Scotch bull, Scottish Lad 45081 FOR SALE.

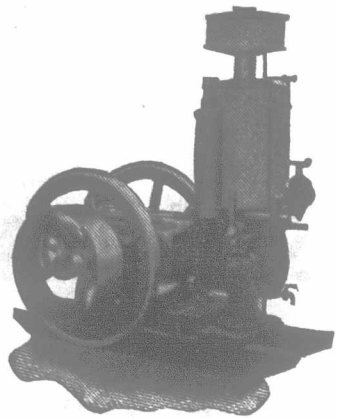
S. DYMENT, Barrie, Ontario.

Clover Lea Stock Farm SHORTHORNS

FOR SALE: Choice bull calves by Golden Cross (Imp.). All dark roans. Some from imported sire and dam. Visitors met at Ripley station.

R. H. REID, PINE RIVER, ONT.
Ripley Station, G. T. R.

GASOLINE ENGINES



We are prepared to place the "STICKNEY" Gasoline Engine against anything on the market to-day in regard to

Power Developed. Simplicity of Construction. Economy of Fuel.

Compare size of cylinders in our engines and others, and then JUDGE FOR YOURSELF.

ONT. WIND ENGINE & PUMP CO., Ltd.
TORONTO, CAN.

MAPLE GROVE SHORTHORNS



Imp. and Canadian-bred.

Males and females, as good types as the breed produces. With breeding unsurpassed.

C. D. Wager,

Enterprise Stn. & P.O., Addington Co.
GREENGILL HERD
of high-class

SHORTHORNS



We offer ten young bulls ready for service, a number of them from imported sire and dam; also high-class females, all ages, either imported or Canadian-bred. The herd is headed by (Imp.) Lord Roseberry.

R. MITCHELL & SONS,
Nelson P.O., Ont.; Burlington Junc. Sta.
R. A. & J. A. Watt, Salem, Ont.
Elora Station on the G. T. and C. P. Ry.
Home of the first and third prize aged herds, Canadian National, Toronto, 1905; Mayflower, grand champion Toronto and Winnipeg, 1904-05; Olga Stamford, grand champion New York State Fair, 1905; Gem of Ballechin, grand champion Toronto, 1903; Tiny Maude, reserve senior champion Toronto and Winnipeg, 1905; Mildred's Royal and other leading winners. A choice number on hand to make your selection from at all times.

GLENAVON STOCK FARM

Shorthorns and Lincoln Sheep

I have one Shorthorn bull calf, with imported cross near the top, and a registered Lincoln ram, which I will sell cheap, or will change rams.

W. B. ROBERTS, Sparta P.O.
Station: St. Thomas, C.P.R., M.C.R., G.T.R.

SHORTHORNS AND LINCOLNS.



Present offerings: 4 choice young bulls 9 to 14 months; also a few good heifers, Lincolns descended from the best English stocks.

JOHN LEE & SONS,
Highgate, Ont.

40 miles west St. Thomas, on M.C.R.R. & P.M. Ry.

SHORTHORNS

Imp. Keith Baron 36050. Six young bulls from 10 to 18 months old. A lot of 2-year-old heifers in calf and a few young cows. A bunch of heifer calves, cheap.

CLYDESDALES

Just now: One pair of matched geldings 5 and 6 years old; show team.

JAS. McARTHUR, Goble's, Ont.

Riverview Shorthorns and Oxfords

Shorthorns represent Crimson Flowers, Athelstanes, Lady Janes and Roses.

We have for sale three yearling bulls and some spring calves, also a few females. A thick, straight, mossy lot. Also some Oxford down ram lambs.

Peter Cochran, Almonte P. O. and Station.

Queenston Heights SHORTHORNS

I am offering extra value in yearling and two-year-old heifers. Bull calves that will make high-class sires. Straight Scotch.

HUDSON USHER, Queenston, Ont.

GOSSIP.

CLYDESDALE AND HACKNEY IMPORTATION.

The Donaldson liner, Parthenia, which sailed from Glasgow, on July 29th, carried two valuable shipments of Clydesdales and Hackneys for Canadian buyers. Messrs. Graham Bros., Claremont, Ont., had eight Clydesdale stallions and three Clydesdale fillies, as well as nine Hackney stallions. Messrs. Graham & Renfrew, Bedford Park, Ont., had ten Clydesdales and twelve Hackneys. The Clydesdales, in the case of both firms, and some of the Hackneys, were purchased from Messrs. A. & W. Montgomery, Netherhall and Banks, Kirkcudbright; a few of the Hackneys were also bought from Mr. Peter Crawford, Dargavel, Dumfries, but most of the light-legged horses in Graham Bros.' shipment were bought in Yorkshire, and several of those in Graham & Renfrew's shipment were bought from Carr & Co., Clydevale Stud, Carlisle.

Prominent among the Clydesdales in the Claremont lot was the noted premium horse, Durbar (11695), own brother to the early unbeaten Baron's Pride filly, Empress, and winner of third prize as a two-year-old colt at the H. & A. S. Show, at Dumfries. He was the Machras of Wigtown, West Lothian, and Rute premium horse in three successive seasons. His dam is one of the best breeding mares in Galloway, got by the good St. Lawrence horse, Scottish Pearl (2949). Two three-year-old horses of very good breeding will command a ready sale. They are got by Up-to-Time (10475), a noted breeding premium horse, and the well-bred Good as Gold (11733). The Up-to-Time colt is own brother to Mrs. Curr's horse, Magnate, a useful horse which won prizes. A yearling colt, by McRaith (10229), so long Lord Polwarth's stud horse, and out of the noted Blacon Point prize mare, Jean Macgregor, should make his mark on the other side. Three two-year-olds, got by the popular Woodend Garty (10663), the unbeaten Everlasting (11331), and the well-known premium horse, Rosario (9996), are of the sort which win favor with buyers in Canada. One of the best in the shipment is the yearling colt which won second prize at the Aberdeen summer show. He was bred by Dr. Wilson, and got by the well-known big horse, Mains of Airies (10379). Three superior fillies complete the Clydesdale section of this shipment.

One is a two-year-old, by the noted Royal Favorite (10630), out of a Baron's Pride (9122) mare, and another is a yearling, her full sister. A big-sized two-year-old, bred in Fife, and got by Time Enough, will command favor in Canada. Among the nine Hackney stallions exported by Graham Bros. are several of outstanding merit and breeding. One is Dalton King, which stood second in one of the aged classes at London this year, and third in harness. He is also a noted prizewinner in other classes, taking no fewer than six or seven other prizes. He is a great goer, of the true harness type, and is exceptionally well bred. His sire was Garton Duke (3009), his dam by Danegelt (174), and his grandam by Lord Derby II. (417). Another named Colorito was reserve number at London, second at Market Weighton, and first at Driffild as a two-year-old. He was got by champion Rosador. Another, by the same sire, is the three-year-old, Baltimore, full brother to Rosary, a big 15.3 hands horse. Of the Hackneys bought at Netherhall, one is by the good breeding sire, St. Thomas, out of a Rosador mare. Another, as a two-year-old, was second at London, second at Pocklington, and second at Market Weighton, as well as third a week or ten days ago at Birkenhead. He was got by the famous Garton Duke. Finally, there is Mr. McAllister's first-prize yearling colt at the H. & A. S., Peebles, and the Royal Northern, Aberdeen. He also was got by St. Thomas.

Graham & Renfrew are a new firm, but the Graham in the firm is no new hand in the Clydesdale world. He is Mr. Robert Graham, the eldest of the Claremont brothers. All the ten Clydesdales in their selection are from Netherhall. One is the four-year-old stallion, Caliph (12074), a son of Baron's Pride, and the Hexham premium horse in 1905 and 1906. Another is the beautiful, clean-boned three-year-old, Evander, bred

by the late Sir Michael Shaw Stewart, Bart., and got by the premium horse, Elator, out of a Prince of Cathcart mare. This beautiful three-year-old was champion at the Aberdeen spring show, and the Biggar and Peebles premium horse this season. A choice two-year-old is own brother to the renowned champion mare, White Heather, in her turn, dam of Minnewawa, first as a yearling at the H. & A. S. Show, at Glasgow, in 1905, and champion at the Kilmarnock Show in April last. Of the same age is a full brother to the third-prize aged horse at the H. & A. S., Peebles. This colt is by Baron's Pride, and is well named Flash Baron. He was second at Castle-Douglas in spring. Yet another two-year-old was got by the noted Baron o' Buchlyvie, and was first at Girvan last year. A fourth was got by the Glasgow premium horse, Marconi (11817). There are two three-year-olds, got respectively by Mains of Airies (10379), and the successful breeding horse, Argus (10492). The female in this shipment is Mr. George Findlater's well-known prize mare Lanark Queen. She has won over 20 first prizes, and was fifth at the H. & A. S., Peebles, in a very strong class. She is exceptionally well bred. Her sire was Baron's Pride; her dam by the H. & A. S. first-prize horse, Montrave Sentinel (10094), and her grandam by the renowned Sir Everard (5353). These notes require no embellishment. They sufficiently prove that Mr. Robert Graham has fully maintained his reputation as a judge of Clydesdale horses.

Among the ten Hackneys purchased by Graham & Renfrew is Bingham Radiant, by Rosador, first prize three-year-old, and reserve champion at the Royal, Derby. Altogether, they have of this breed five stallions and three mares, one pony, and one gelding, a "stormer." Among the stallions are horses by Dissenter, and Garton Duke, a pony stallion is by the famous London winner, Woodland's Eaglet. There are a pair of matching four-year-old mares, by Garton Duke, and a beautiful prize mare named My Honey, by the celebrated Bonny Danegelt. The shipment concludes with a nice Shetland pony and a jackass. Good luck to the new firm!—[Scottish Farmer.]

Mr. Thompson Porter, of Carleton West, near Toronto, whose herd of Jerseys was described in "The Farmer's Advocate" of last week, writes that the one-year-old heifer mentioned in that review as having recently calved, and giving 28 lbs. of milk per day, has since given 34 lbs. in 24 hours, which yielded seven pints of 25 per cent. cream, equal to over 15 lbs. butter in a week, a record so good that her name has been changed to Pauline's Mary Ann of St. Lambert, and, judged by her early record, she promises to make a producer equal to the illustrious cow of similar name, the Mary Ann of the eighties.

U. S. EXPORT TRADE HURT.

A Washington report says: How seriously the export meat business of the United States was injured by the agitation regarding the condition of the Chicago slaughter-houses, which resulted in the passage of the law for improved inspection, is shown in a bulletin just issued by the Department of Commerce and Labor, giving the figures of exportation for July. It shows an abnormal falling off, which cost the beef packers and cattle growers several millions loss in thirty-one days.

In July of last year there was exported 5,232,794 pounds of canned and tinned meats, having a total value of \$542,168. For the month just ended, the total number of pounds sent abroad was only 1,039,852, and the value, \$104,710.

There was also a falling off in the export of cattle during July. A year ago the number sent abroad exceeded 49,000 head, at a valuation of almost \$3,000,000. This year there was a decrease of over 15,000 head, and a shrinkage in value of almost \$400,000.

In fresh beef, there were exported in July, 1905, 21,074,326 pounds, at a value of \$1,963,912, against the present year of 16,467,150 pounds, valued at \$1,546,191. The exports in salted and pickled beef, tallow, hog products, oleomargarine and dairy products also showed a marked decrease.

Ring-Bone

There is no case so old or bad that we will not guarantee

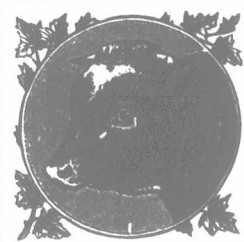
Fleming's Spavin and Ringbone Paste to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebones and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of

Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durably bound, indexed and illustrated. Make a right beginning by sending for this book.

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

HOLLYMOUNT SHORTHORNS



Pure Scotch, Imported, and the get of Imp. stock.

25 HEAD

Anything for sale. 5 young bulls. Breeding gilt-edged and unsurpassed. A few heifers. Prices right.

W. J. Thompson, Mitchell P. O. & Sta.

High-class Shorthorns

The well-known Duthie-bred bull, Scottish Beau (Imp.) (36099), by the great Silver Plate, formerly at head of R. A. & J. A. Watt's herd, now heads my herd. Young stock usually on hand for sale.

N. S. ROBERTSON, ARNPRIOR, ONT.

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

The Sunny Slope herd comprises Cruickshank Bellonas, Mysies, Villages, Brawith Buds, Broadbones, Bruce Augustas, Mayflowers, Campbell Bessies, Urys, Minas, Clares, Kibbean Beauties. Herd bulls: Scottish Hero (Imp.) (90065), a Sheth-in-Rosemary, and Chief Ramsden = 62548 =, a Miss Ramsden. Correspondence solicited. Visitors welcome. Long-distance phone in house.

Pleasant Valley SHORTHORNS

We are offering several high-class young bulls from first class (Imp.) bulls and from Imp. and Canadian-bred Scotch cows; also young heifers of various ages, with good Scotch breeding.

GEO. AMOS & SON, MOFFAT, ONT.
Farm 11 miles east of Guelph on G. & G. R.
One-half mile from station.

Oak Grove Shorthorns—Several Imp. cows, heifers and young bulls, all sired by Imp. Nonpareil Duke and out of Imp. dams; also the stock bull, Imp. Nonpareil Duke, a choice offering. Prices right. W. J. ISAAC, Cobourg Station, Harwood P. O.

SCOTCH-TOPPED SHORTHORNS

Young stock of both sexes for sale, sired by Scottish Baron (Imp.). Prices reasonable.

H. GOLDING & SONS, Thamesford, Ontario.

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 telephone. WM. SMITH, Columbus, P. O. Brooklin and Myrtle Stns.

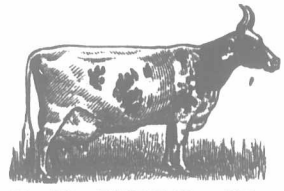
Brown Lee Shorthorns—Present offering is 3 young bulls from 9 to 15 months old, a nice straight, good-doing lot, sired by Blenheim Stamp; also females of all ages, daughters of Imp. Sir Christopher and Imp. Beaucamp. Prices very reasonable. DOUGLAS BROWN, Avr P.O. and Station

Pine Ridge Jerseys—Present offering: Some good young cows and a choice lot of heifers, all ages, from 4 months up; also some good Cotswold sheep (registered). WILLIAM WILLIS, Newmarket, Ont.

FOR SALE: 26 JERSEYS under ten years of age. Prime condition. Sound. Nine due to calve August and September. Cheviot and Dorset Horned Sheep, 1 Poland China Sow, and 3 Bear Pigs. F. S. WETHERALL, Rushton Farm, COOKSHIRE, QUE.

Brampton Jersey Herd For sale: 10 bulls, from 6 to 18 mths. old, descended from St. Lambert or imported stock; also females of all ages. For full particulars address: B. H. BULL & SON, Phone 68, Brampton, Ont.

HIGHGROVE JERSEY HERD. Our present offering is: a few choice heifer calves from 3 to 6 months old, which, considering quality, will be sold reasonable. ROBT. TUFTS & SON, Tweed P.O. & Sta.



Burnside Ayrshires

Imported and Canadian-bred. Prizewinners at all the leading shows. I hold the award of merit given by the Bd. of Dir. of World's Fair, St. Louis, to the breeder of largest number of prizewinning Ayrshires at said Exposition. Females of all ages for sale, imported and Canadian-bred.

R. R. NESS, JR., HOWICK, QUE., P.O. AND STATION.

ANNANDALE HOLSTEIN HERD

Have won during the past show season at Ottawa first and sweepstakes on cow, first on 3-year-old, first on 2-year-old class. At Guelph (dairy test) first and sweepstakes on cow, first and second in heifers. At Chicago (National) first and sweepstakes on cow, also second-prize cow, second and third on 4-year-olds, second on 1-year-old heifers, and a host of other prizes (different cows at different shows)

Full calves, 4 months and under only, for sale from great dams and greatest of sires. Buy young if you want them from Annandale Stock Farm.

GEO. RICE, Tillsonburg, Ont. HOLSTEINS FOR SALE



Four imported and one home-bred bulls, from 8 to 12 months old; also our entire crop of spring bull calves, from week old up.

sired by the grandly-bred imp. bull, Sir Howitje B. Pietertje, whose dam 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. A FEW HOLSTEIN BULLS

fit for service, for sale at reasonable prices. Choice females, all ages. If you are willing to pay good prices for good stuff, write me.

G. W. CLEMONS, St. George, Ont. Lyndale Holsteins. For Sale

A number of bull calves from one to four months old, out of Record of Merit cows, and sired by Beryl Wayne Paul Concordia, whose four nearest dams have official butter records averaging 32 lbs. 11 ozs. each.

Centre and Hill View Holsteins

We have four yearling bulls left which we will sell at reduced price to quick buyers; from good producing strains; our own raising. Sold out of females at present. P. D. EDE, Oxford Centre P. O., Woodstock Station, C. P. R. and G. T. R.

MAPLE GROVE HOLSTEIN-FRIESIANS

For Sale: Three bull calves, sired by Lord Wayne Mechthilde Calgary, and all out of Advanced Registry cows. Apply

WALBURN RIVERS, Foiden's Corners. Maple Glen Holsteins

Three sons of Sir Altra Posch Beets, whose granddam holds world's largest official record for her age, and grand sire has over 60 tested A. R. O. daughters—the most by any bull on record. Brother of Aggie Cornucopia. Secure the best. C. J. GILROY & SON, Glen Bueli, Ont.

Grove Hill Holsteins

Herd contains 55 head, a number of which are in the advanced registry. Our stock bulls have all been backed up by high records. Present offering: Several young bulls and a few females. F. R. MALLORY, Frankford P. O. and Sta., C. O. R.

IMPERIAL STOCK FARM HOLSTEINS

A prizewinning herd of imported, officially tested stock. Bulls of all ages for sale, also a few cows. W. H. SIMMONS, New Durham, Ontario. "GLENARCHY" HOLSTEINS

Glenwood Stock Farm Holsteins and Yorkshires

Holsteins all sold out. Have a few young Yorkshire sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. THOS. B. CARLAW & SON, Warkworth P. O., Campbellford Stn.

Holsteins, Tamworths, Oxford & Dorset SHEEP FOR SALE

At present we have 1 young bull, 8 Oxford ram lambs, Dorsets, 1 yearling and 1 aged ram. Tamworths, both sexes. J. A. Richardson, South March P. O. and Stn.

HOLSTEINS AND YORKSHIRES R. HONEY, Brickley,

offers for sale a choice lot of young boars fit for service; also sows ready to mate

HILTON STOCK FARM—Holsteins, Cotswolds and Tamworths

Present offering: Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig. R. O. MORROW & SON, Hilton P. O., Brighton Tel. and Stn.

WOODBINE HOLSTEINS

Herd headed by Sir Mechthilde Posch, absolutely the best official-backed sire in Canada. Dam Ianthe Jewel Mechthilde, 25.8 pounds butter in seven days. Champion cow of Canada over all breeds. Sire's dam, Aaltje Posch 4th, holds the world's largest two-day public test record—8.6 pounds butter. Young bulls of the choicest quality for sale.

A. KENNEDY, Agr. Ont. Agr. C.P.R.; Paris, G.T.R.

AYRSHIRES

The famous Reford Herd at St. Anne de Bellevue, Que., now owned by Sir William C. Macdonald.

Several yearling bulls for sale; also a number of bull calves. Quality and appearance extra good, bred from the best milking strains, noted for robust constitution and large teats.

MACDONALD COLLEGE St. Anne de Bellevue, Quebec.

AYRSHIRES—Choice stock of either sex, different ages, for sale. Prices reasonable. For particulars apply to N. DYMENT, Hickory Hill Stock Farm, Dundas Stn. & Tel. Clappison, Ont.

Maple Cliff Dairy and Stock Farm Breeders of Clydesdale Horses, Ayrshire Cattle, Berkshire and Tamworth Pigs. Young stock for sale at all times. R. REID & CO., Hintonburg, Ont. Farm adjoins Central Experimental Farm.

Ayrshires and Yorkshires

We always have on hand choice animals of above breeds, of any desired age. Prices reasonable. Write us before buying. Intending purchasers met at Hoard's. Alex. Hume & Co., Menie P. O.

SPRING BURN STOCK FARM, North Williamsburg, Ont. H. J. WHITTEKER & SONS, Props.

Breeders of Pure-bred Ayrshire Cattle, Oxford Down Sheep, Berkshire Pigs and Buff Orpington Fowls. Young stock for sale. Eggs for hatching, \$1 for 13, and \$4 per 100.

HIGH-CLASS AYRSHIRE CATTLE

Bulls and heifer calves, two to nine months old, cows and heifers all ages. Prizewinners from this herd include Tom Brown and White Flower, sweepstakes at Chicago. DAVID BENNING & SON, "Glenhurst," Williamstown, Ont.

Wardend Ayrshires

We are offering young bulls from 1 to 2 years old; also a choice lot of spring calves from deep-milking dams. Sired by White Prince of Menie No 1825; bred by A. Hume Menie, F. W. TAYLOR, Wellman's Corners, Hoard's Stn., G. T. R.

Select Ayrshire Bulls—Four choice last Aug. and Sept. calves. Special low price on five March and one May calves. B. HALLANTYNE, Stratford, Ont.

Stockwood Ayrshires for Sale.

Have some nice yearling heifers, also a few aged cows. All in fine condition. Write or call and see them. Address: D. M. WATT, ST. LOUIS STATION, QUE.

We Want HIDES SKINS, WOOL

Our advice is. Consign to us at once while we can pay present very high prices E. T. CARTER & CO., TORONTO.

Southdowns

New importation of rams and ewes on offer; also home-breds by Royal prizewinning imported rams. COLLIES—Puppies by imported Hollywood Clinker.

Robt. McEwen, Byron, Ont. Long Distance Phone.

Dorsets. Can supply Dorset sheep of the various ages, of either sex, in pairs not akin, at very reasonable prices, quality considered. Glead's Spring Farm, E. DYMENT, Copetown P. O. Wentworth Co.

SHROPSHIRE Good young rams and ewes FOR SALE. W. D. MONKMAN, Bond Head, Ont.

Leicesters! A grand lot of one and two-shear rams and ram lambs, also ewes of various ages. Mac. Campbell, Harwich P. O., Ont.

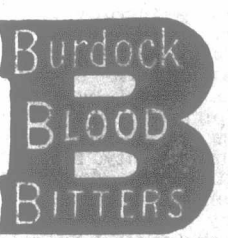
GOSSIP.

Mr. John Chambers, the senior partner of the firm of John Chambers & Son, Holdenby, knows a Shire horse as well as most men, and his great experience of them, and his extensive farms in Northamptonshire, England, as well as in North Wales, has enabled him to become possessed of animals of sterling merit, and of the best and most wearing Shire blood. The consignment of Shires to be sold at Toronto this fall, portraits of two of which are given in this issue, particulars of which follow, will be found a most desirable one for breeding purposes, and will be found in the finest, healthy breeding condition: Holdenby Daisy (48222) is a low-set, short-legged, deep, useful brood mare, by Duke of Clarence 2nd (13001), a sire of first-class quality and action. Her dam, Darby, was by the thousand-guinea stallion, Burgundy (12862), and her grandam by Carbon, the weightiest son of the famous Lincolnshire Lad 2nd, so that her breeding is of the greatest value, and she has a foal at foot, by Northgate Prince 15762. Holdenby Mary, Vol. 28, is a two-year-old, with great style and quality, quite a show filly, and likely to hold her own in the arena amongst the best company. She is a daughter of Hitchin Beau (19690), a stallion of great calibre, winner of first prize and champion at the Norfolk Show, in 1900, also Lincolnshire and Hitchin he won prizes the same year. The following year he also stood fourth in London and second in Oxfordshire, and first at Suffolk, Norfolk and Northampton. His sire was Ciceter Beau Harold, a great show stallion, belonging to Lord Bathurst, and his dam Dempall Blossom, by What is Wanted. Backed by such breeding, this filly cannot go astray. Patterton Old Style (19002) is a very valuable dappled grey stallion of great size and substance, scaling, when commencing his season, as much as 2,600 lbs., and is well built and active. He was bred on the borders of the best Derbyshire district, and foaled in 1899, so is now just reaching his prime. His sire was Sandycroft Tom, a famous getter in Derbyshire, and his dam, Daisy 23413, by Jesberton Sampson 7285. These horses were in the hands of Mr. Joseph Grimes, one of the keenest judges and breeders in the Derbyshire district; again back breeding demands every attention. Ranging Duke 21784, foaled in 1899, bred by Mr. Walthe, in the Derbyshire district, and the very type of a Derbyshire weight, short-legged stallion. His sire was Ridware Ranger 12155, a son of the famous old sire, Royal Albert, and a getter of more high-priced geldings in Staffordshire than, perhaps, any other stallion, and his dam, Smiler, by Duke of Cambridge 2nd (3607), also a famous getter in the best breeding districts of Staffordshire, and one of the best known stallions of his day. The Royal Albert blood is amongst the best wearing families of Shires in England today. The world-renowned stallion of today, Locking Forest King, was from a Royal Albert mare. Roxwell Saxon Harold (22732), foaled in 1901, bred by late Solomon Young, in Essex, is a grand class of five-year-old stallion, smart, full of quality and dash, and with a correct set of limbs under him; he moves, too, with freedom and force—together a young horse to do good. His sire was Roxwell Saxon Oak 19084, and his dam, Nateby Smart, by Blythwood Harold, by Sir James Blythe, and full of character. St. Caffo (23656), foaled in 1903, bred by Mr. Hugh Roberts, in North Wales, a black colt, by Winchelsea (14439); his dam Lady Caffo 48437, by Duke of Clarence 2nd (13001); as his breeding implies, he is a colt, full of quality and style, a fine mover, and correct in his limbs, a most desirable colt to purchase, with a great future before him, undoubtedly. This horse won first and special at the Anglesea & Carnarvonshire Agricultural Show, 1905. Holdenby Black Jumbo, Vol. 28, foaled 1904, a black by Ashby Lad 2nd (17111), a tremendously big colt, with wearing limbs, and massive in his build, quite a typical Shire, and backed by the best of breeding. His sire has been very successful and impressive in the Rugby district and the Northamptonshire border. Holdenby Druid, Vol. 28, the last of the list, is a fine yearling colt, by Northgate Druid, out of Myrtis 39716, bred by Messrs. Chambers, and in every way calculated to make a big, valuable colt.



CURES

Dyspepsia, Bolls, Pimples, Headaches, Constipation, Loss of Appetite, Salt Rheum, Erysipelas, Scrofula, and all troubles arising from the Stomach, Liver, Bowels or Blood.



Mrs. A. Lethaue, of Ballyduff, Ont. writes: "I believe I would have been in my grave long ago had it not been for Burdock Blood Bitters. I was run down to such an extent that I could scarcely move about the house. I was subject to severe headaches, backaches and dizziness; my appetite was gone and I was unable to do my housework. After using two bottles of B. B. B. I found my health fully restored. I warmly recommend it to all tired and worn out women."

Shropshire & Gotswold Sheep

SCOTCH SHORTHORNS and CLYDESDALES Choice ram and ewe lambs. Also 50 shearing ewes for sale. Apply to JOHN BRIGHT, Myrtle Station, Ontario.



Advertisement for Shropshire Rams and Ewes, featuring text: HAVE JUST IMPORTED THE BEST LOT OF Shropshire RAMS AND EWES, ALSO Gotswold Rams and Ewes. TEAT I HAVE EVER OWNED. Will quote close prices on application. ROBERT MILLER, Stouffville, Ontario.

BROAD LEA OXFORDS.

Present offerings are 20 ranch shearing rams, seven shearing ewes, one show ewe four years old. Will also book orders for ewe and ram lambs from imported ram. Correspondence promptly answered. Visitors always welcome.

R. R. Stations: M. H. G. T. R. | W. H. ARKELL, Teeswater, Ont. Teeswater, C.P.R.

DORSET HORN SHEEP and SCOTCH SHORTHORNS

The latter representing the Womperell, Miss Ramsden, Missie and Glead families exclusively, and the former comprising more Royal winners and more St. Louis prizewinners than any other flock in the world. Stock for sale always on hand. JOHN A. MCGILLIVRAY, Ontario North Toronto.

Farnham Farm Oxfords.

We have some extra good yearling rams for flock headers, all sired by imported ram. We also have 50 yearling ewes and 100 ram and ewe lambs. These are principally sired by our famous imported ram.

HENRY ARKELL & SON, ARKELL, ONT. Guelph, G. T. R. Arkell, C. P. R.

FAIRVIEW SHROPSHIRE RAMS

The flock is retired from fall-fair showing. It took the lead for 22 years. 25 good to choice yearling rams and 30 first-class ram lambs now offered. Sires: Champions and producers of winners. Dams: Many of them imported, and all choice. Do you need a moderate priced flock-header? If so, come, or write for circular and quotations to JOHN CAMPBELL, Woodville, Ont.

Advertisements in the Advocate

MEN, HERE'S AN OFFER!

You've doctored and doped till you are sick of it all. You would pay for anything that would give you back your old vim. You don't want to pay out any more money till you are sure. I will cure you first and you can pay me afterward. Is that fair? Then get in line.

I know what I can do, because I've done it and am doing it every day. I'm sure that Electricity is the life, and that I can restore it where it is lost. So if you need what I offer, and don't want to risk my price, wear my Belt free until you are cured, then you can pay me.

And when you do pay me the cost is less than a short season of drugging, and how much more pleasant! You put my Belt on when you go to bed; you feel the soothing, exhilarating vigor flowing into your weak body, and while you sleep peacefully it fills you full of the fire of life. You wake up in the morning feeling like a giant.

Now, I can't cure everything. I don't claim to, and I won't take a case that I don't feel sure of, but all those troubles which come from an early waste of vitality, from dissipation of any kind, from decay of nerve power, or from any organic stomach, liver or kidney weakness, I can cure, and those are the cases I am willing to tackle and take chances on. I am curing them every day. All I ask is reasonable security for my belt while you are wearing it.

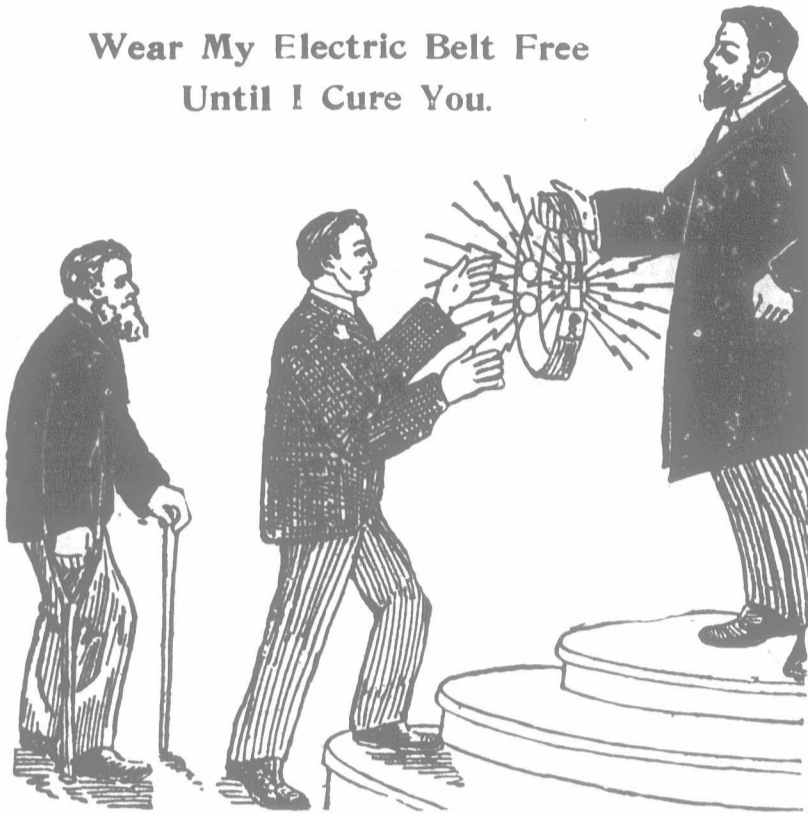
Dr. McLaughlin: "Dear Sir,—I take the opportunity of letting you know the benefit your Belt has given me. I was a poor cripple before I got it, now I can stoop and pick up a pin with ease. It was worth a great amount of money the good it has done me. My advice is that no home should be without one. I thank you for the benefit it has done me."

Dr. McLaughlin: "Dear Sir,—I must say that your Belt has done me a lot of good. Since wearing it, three years ago, I have never been troubled with rheumatism. I find the Belt just the thing to do as you say. I have lent it to others, and they speak well of it. Wishing you every success."

That's enough. You need the cure. I've got it. You want it. I'll give it to you or you need not pay me a cent. Come and get it now. The pleasurable moments of this life are too few, so don't throw any away. While there's a chance to be husky and strong, to throw out your chest and look at yourself in the glass and say, "I'm a man," do it, and don't waste time thinking about it.

I've got a beautiful book, full of good, honest talk about how men are made big and noble, and I'll send it to you, free, sealed, if you send this coupon.

Wear My Electric Belt Free Until I Cure You.



River aux Pins, St. Gabriel, Que.

I was a poor cripple before I got it, now I can stoop and pick up a pin with ease. It was worth a great amount of money the good it has done me. My advice is that no home should be without one. I thank you for the benefit it has done me."

PHILIPPE MCGAHEY.

Collingwood, Ont., Dec. 16, 1905.

I have never been troubled with rheumatism. I find the Belt just the thing to do as you say. I have lent it to others, and they speak well of it. Wishing you every success."

JOHN CRAWLEY.

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If you can't call send Coupon for Free Book.

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Dear Sir,—Please forward me one of your Books, as advertised.

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Now offer for sale imported Leicester ram, **Winchester**, used in my flock for three years; also a grand lot of one, two and three shear rams and ram lambs; ewes, all ages.

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From one of the largest breeders in the home of the breed. We have bred the prizewinners at the leading English shows. Address:

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NEWCASTLE HERD OF TAMWORTHS and Shorthorns.—We have for immediate sale several choice boars ready for service, and sows bred and ready to breed, together with a lot of beautiful pigs from two to four months old. Also a few choice heifers in calf to Donald of Hillhurst No. 44600, and a few nice bull calves and heifer calves. All correspondence answered promptly. Daily mail at our door, and prices right. **Colwill Bros., Newcastle.**

Mount Pleasant Herd of Tamworths and Holsteins.—A large herd of choice pigs of all ages on hand. Mount Pleasant type of hogs are profitable breeders and ideal bacon hogs. Pairs not akin. Herd headed by Colwill's Choice No. 1343. Won sweepstakes and silver medal at Toronto, 1901-2-3. Also a few bulls. **Bertram Hoskin, The Gully.**

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FOR SALE: Young stock from six to eight weeks old; sired by Maple Lodge Doctor and Concord Professor. Some choice sows bred and ready to breed. Express prepaid.

JOHN BOYES, JR., CHURCHILL P. O. Lefroy Station, G. T. R.

Berkshires and Shorthorns.—Choice young pigs of both sexes, sired by Polgate Doctor (imp.), and from Industrial prize-winning stock; also a few excellent Shorthorn cattle. We invite your inspection. **McDONALD BROS., Woodstock, Ont.**

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Imported and Canadian-bred
H. M. VANDERLIP, Cainsville,
on T. H. & B. and B. & G. division of Grand Trunk. Telephone and telegraph, Cainsville, Ont.

HILLCREST HERD OF ENGLISH BERKSHIRES

Sires in use: Concord Triumph 13303, got by Perfection (imp.) 9801, possibly the best sire in Canada to-day. Stoll Pitts' Winner (imp.) 12185, first at Le Royal. On hand, young sows, sired by Concord T., bred to Stoll Pitts' W. These are choice and lengthy.

JOHN LAHMER, Vine P.O., Ont.

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Bred from imported and Canadian-bred sires and dams, and bred on prize-winning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boars. **HENRY MASON, SCARBORO P. O.** Street cars pass the door.

Glenhodson Yorkshires.

Sows bred or ready to breed. Young pigs from three to six months old. Pairs not akin. Satisfaction guaranteed.

GLENHODSON COMPANY, Myrtle Station, Ont. Long distance phone at farm. Lorne Foster, Mgr.

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; pedigrees and safe delivery guaranteed. Address: **E. D. GEORGE, Putnam, Ont.**

Yorkshires!

Have some grand spring litters farrowed in Feb., Mar., April, May from AI stock. Will sell at living prices. **L. HOEY, Powle's Corners P. O., Fenelon Falls Station.**

IMPROVED YORKSHIRES.

Choice young stock from imported prizewinning stock for sale. **GEO. M. SMITH, HAYSVILLE, ONT.**

ELMFIELD YORKSHIRES

Have a few young sows from 4 to 7 months, bred and ready to breed; also some young pigs weaned and ready to wean, from imp dam and sire. **G.B. Muma, Ar. Ont.**

MONKLAND YORKSHIRES

Imported and Canadian-bred.

We keep 35 brood sows, and have constantly on hand between 100 and 200 to choose from. Can supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

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Oakdale Berkshires

Of the largest strains Imported fresh from England. The produce of these and other noted winners for sale reasonable. Let me book your order for a pair or trio not akin.

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Ohio Improved Chester Whites

100 Pigs to Offer of the long, deep, heavy sort. Breeding stock selected from the most noted families, with a view to size and quality. Booking orders for choice spring pigs; also a few fall pigs for sale. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe arrival guaranteed.

H. E. GEORGE, Crampton, Ont.

Glenburn Herd of YORKSHIRES

Now on hand, a number of sows, 5 and 8 months old, for spring farrow; also a large number of September sows and boars. Booking orders for spring pigs. **o**

DAVID BARR, JR., Box 3, Renfrew, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

ABNORMAL APPETITE.

Can you tell me, through your valuable paper, the cause and cure for cows and young colts chewing wood and bones? **A. T. T.**

Ans.—Any one of a number of causes may account for this abnormal appetite. Lack of salt, or the lack of some other essential ash constituent in the food may induce the habit, which, once formed, is liable to persist for a time. The composition of the unnatural substance eaten is not always an indication of what is lacking in the food. However, we know of cases where an application of basic slag (Thomas phosphate powder) to the soil has favorably affected the feed grown, and thus indirectly satisfied the animals' craving for phosphorus. In some cases, no doubt, an application of wood ashes would benefit not only the yield, but the nutritive quality of the crop. We would advise experimenting on the land with wood ashes, phosphate powder, or a substitute in the form of bone meal and lime. Meanwhile see that the animals have plenty of salt before them, and give them, besides, mixed with salt, a small closed handful of sifted wood ashes per head twice a week. If this fails, try a tonic made up as follows: Copper sulphate and iron sulphate, each one ounce; powdered gentian root, two ounces; soda bicarbonate, four ounces. Powder well and thoroughly mix. Dose for mature cattle, a level tablespoonful once a day.

DOES WHEAT CHANGE INTO CHESS?—FEEDING FAT INTO MILK.

1. Some farmers claim the small or shrunken wheat will turn to chess. What do you say to that?

2. Is it possible to feed a cow so as to increase the percentage of butter-fat in her milk? Just a common farm cow, not one that is always fed to her limit with grain and meals.

Ontario. **A SUBSCRIBER.**

Ans.—1. At the risk of incurring the disfavor of a minority of our readers, we make bold to affirm our conviction that wheat will not turn to chess or drips any more than clover will turn to grass. The supposed evidence that it will do so, will not bear critical examination. Chess, like certain other weeds, is very much harder than wheat, and possesses enormous power to stool and spread. When the wheat is killed by a hard winter or other adverse conditions, the chess endures, thrives, multiplies and occupies the ground, producing a luxuriant crop, whereas if the wheat had flourished, the chess would have been so scarce as to be quite inconspicuous. If absolutely clean wheat be sown, and there be no seeds of chess in the ground, no chess can possibly grow in the wheat field. The trouble is there is practically no seed grain sown that is absolutely free from weed seeds, and a surprisingly large amount is more or less infested with chess—sufficiently infested, in fact, to produce a good crop of chess if the wheat should happen to fail. If those who think they are sowing pure seed would examine a few handfuls on a piece of white paper, picking them over kernel by kernel, and separating all impurities, they would be simply astonished how many weed seeds may be present in what appears on cursory examination to be a clean sample, and would easily understand how enough chess seed might be unwittingly sown to produce a fine crop of chess, provided the killing of the wheat leaves it in undisputed possession of the land.

2. A great many elaborate experiments have been conducted to test this point, and while, in some few cases, the investigators have been able to produce slight temporary change in the richness of the milk, by changing the feed, the consensus of opinion is that no permanent difference of any account can be made in this way. The cow is a law unto herself regarding the composition of her milk. Liberal feeding, especially on succulent and laxative feeds, may increase the quantity of milk and the churnability of the cream, and in that way increase the amount of butter made; but an accurate test with the Babcock machine will not indicate any appreciable permanent alteration in the percentage of fat in the milk, due to change in feed.