

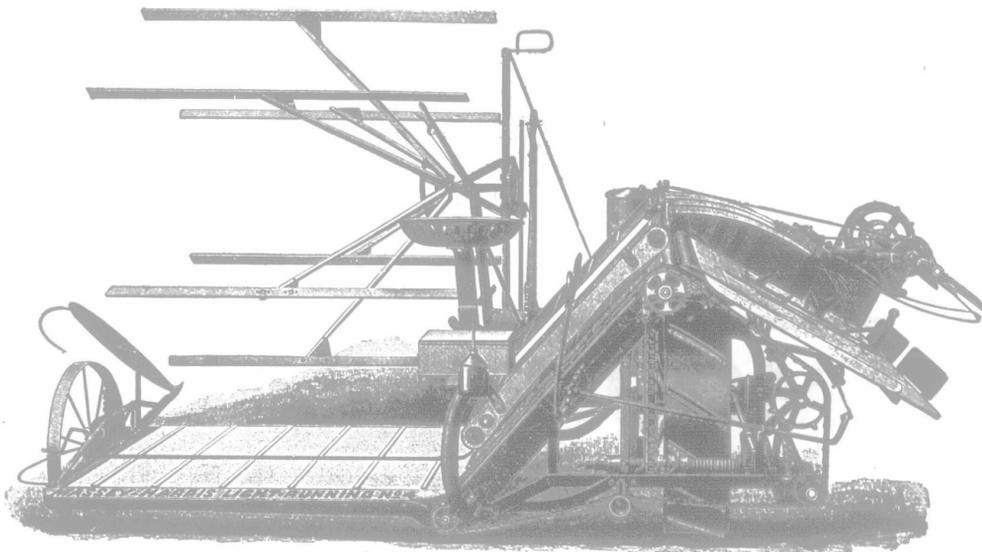
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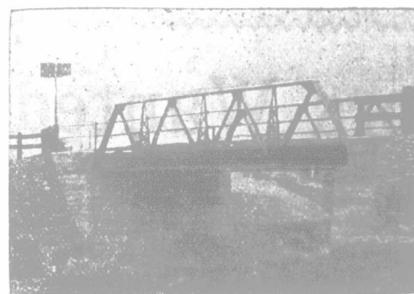
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AND HOME



MAGAZINE

* AGRICULTURE, STOCK, DAIRY, POULTRY,

HORTICULTURE, VETERINARY, HOME CIRCLE.*

VOL. XL.

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NO. 663.

WINNIPEG, MAN. JUNE 7, 1905. LONDON, ONT.

Editorial.

Lessons from Calgary Sale.

Quality, quality counts,
And quality grows.

might well be taken as the lesson learned at the recent Calgary sale of pure-bred stock. Breeders in the Territories, it must be understood, have not erred to any greater degree in perpetuating animals wanting in quality than have the breeders of pure-bred stock in other parts of Canada. Certainly in no other city in the Dominion could so many bulls, drawn without selection from as many breeders, have been sold for so good an average price, sixty-four dollars for over three hundred head, but the supply was over-large, and that enforced the lesson of the value of more rigid selection. The mistake that breeders have been making universally is keeping for breeding purposes everything pure-bred, regardless of its individual merit. Most certainly breeders are aware that all animals with pure-bred parents cannot be expected to make good breeding stock, yet it is invariably the case that a breeder will offer for sale his whole crop of bull calves. Live-stock authorities and the larger breeders with world-wide reputations, have deplored the lack of courage on the part of their less pretentious workers to make steers of their less-deserving calves, but even these same men seldom set the example they so much wish to see followed. Clearly this matter of selection should not be left altogether to the smaller breeder.

But the breeding of pure-bred cattle is not a philanthropic enterprise; it is a business proposition, and the man engaged in it naturally sells his cattle as steers or bulls, according to which will bring the greatest price. In the past the market for bulls has been large; now, while it is just as large, buyers are becoming more discriminating, and the number of breeders is increasing, so that the struggle for the market is now between them, and success will rest upon those who produce only a superior article. Henceforth let us see more pure-bred steers at shows and on the market, for the price of a second-class steer is fully equal to that of a third-rate bull, and if an animal has not that inherent power to lay on flesh to fit him for the block he certainly should not be kept for bull purposes; but a third-rate bull, if castrated young and well fed, as a rule, will make a first or second class butcher's animal.

Another lesson for the cattle-breeders is based upon the very frequent statement of ranchers, that well-fitted bulls at show and sale time do not make good sires on the ranges. This statement, although somewhat open to question, bears a grain of truth. The rancher has in mind a principle upon which Mr. Cruickshank based his operations in improving Shorthorns, namely, that excellence in beef cattle depends upon the ease with which they can make flesh on a minimum amount of feed. The breeder does not always keep this principle before him, but modifies it to mean that excellence in beef cattle depends upon the amount of flesh they can be made to carry, and, in accordance with this idea, their herds are frequently made to consume enormous amounts of grain and other concentrates. The rancher, suspecting this sort of treatment when a well-fitted animal is brought into the ring, seldom bids him up to the mark his condition warrants, in comparison with the unfitted animal, for he reasons that as soon as a well-fed bull is put on the range with only grass to eat he will fall off in flesh and present a very sorry spectacle. Unfortunately, the purchaser seldom discriminates between the natural flesh and soft fat on a bull,

and this brings us again to the question of natural fleshing. We have come to a conclusion, based on underlying principles of breeding, that the too liberal feeding of grain in many herds of beef cattle has resulted, after generations of breeding, in the suppression of that natural tendency to make flesh on all kinds and comparatively limited quantities of food that should characterize every animal kept for breeding purposes. In other words, we have developed in our cattle extravagant habits. Instead of developing by selection and judicious feeding the power to make flesh on little feed, we have created systems that require heavy feeding to make flesh, or even fat. We are aware that this view is not held by many authorities, but our experience forces the conclusion upon us, and we commend it to the consideration of breeders.

The Hon. Mr. Dryden, in his remarks, let the Western cattlemen down as easily as he could, but it was evident that he was just a little disappointed at finding our cattle so lacking in quality, early maturity and natural flesh. As a critical observer and one who understands cattle breeding and feeding problems, and the requirements of the beef market, Mr. Dryden's remarks may well be taken to heart. Possibly he spoke a little ahead of the time, but he clearly indicated the direction the cattle industry must follow in order to compete in the world's markets and to survive in the face of rising land values. Mr. Dryden displayed a wonderfully quick perception of the situation, pointed out its weaknesses, and directed the nature of the improvement that must be made either by choice or necessity.

Fighting the Mange.

The decision of the stock-growers to dip again for the mange, is in pursuance of a proper policy. A year ago there was considerable opposition raised to the order-in-council to dip. The task had a Herculean appearance, and the stockmen who undertook it with a zest were the exceptions to the general rule. This year quite a different attitude is shown toward dipping. Its effects last year were so obvious that its advantages at once commended the practice to such an extent that some ranchers would now dip for lice alone.

To dipping, as to every other advanced movement, there are some opponents. These men claim that they should have the option of dipping when they are ready, but neglect to take into consideration that this dipping is being done in the interest of the public as well as of individuals, and to be effective, must be done within a limited time. Probably when the scourge of mange is stamped out the time and manner of dipping will be optional with the owners, but at present, in the public good, they should endeavor to accomplish the work in as short a time as possible.

One statement of the Veterinary Director-General, is particularly worth noting, namely, that the order-in-council to dip this year will be enforced to the letter; excuses and procrastination will not be tolerated. The stamping out of mange is a matter of interest to all cattle and horse owners in the infected district, and only by an united effort can it be accomplished.

At the convention of stock-growers at Medicine Hat it was decided to recommend the fixing of the date for starting dipping at August 15th, and stock-growers who have the operation to perform will find it to their advantage to begin as soon after that date as possible. This year the same dip—lime and sulphur—is to be used, but a decoction of tobacco may be added to destroy lice. With tobacco, however, it is necessary, in order that it be effective, to raise the temperature of

the liquid to at least 105 degrees F. A hint was dropped by Dr. Rutherford that possibly a crude oil would come into more general use for dipping in the future, in which case the smaller-sized tanks would answer equally as well as the larger. With a thorough dipping this year, it is expected that mange will be practically wiped out of the present-infected district.

Mendel's Law.

In another column, in the article "New Principles in Breeding," the writer, Mr. James Murray, B. S. A., endeavors to state in plain language the principles of what is known as Mendel's Law. In scientific research natural phenomena are acknowledged to be the result of the operation of natural laws, producing certain results. Mendel, a German monk, while experimenting with his garden peas, observed certain regular phenomena, as Mr. Murray explains, and hence the principles believed to be the cause of these phenomena are called Mendel's Law. Formerly, and very largely to-day, for Mendel's Law is not generally accepted, we were accustomed to regard the progeny of any two parents as a composite aggregation of the characteristics of those parents, having in all its unit characters a certain percentage of those of its parents. But, according to Mendel, unit characters, such as color in peas, beards or baldness in wheat, etc., may be transmitted through a parent having the opposite character, without being influenced by that parent. This law, while it may be modified or elaborated by future investigations, helps to explain many things, such, for instance, as a more marked resemblance in certain animals to a grandparent than to either parent, and suggests a reason for the phenomena we have always been accustomed to call atavism or reversion. The principles of this law, although more generally demonstrated by experiments in plant breeding, are, nevertheless, being applied by a noted cattle-breeder, Mr. Mossom Boyd, of Prince Albert, N.-W. T. Mr. Boyd's line of work has been to develop a strain of polled Herefords from a polled sport—a pure-bred Hereford bull, born in his herd. In these experiments it was found that by breeding this polled bull to horned cows the resulting progeny bore the characteristics of the parents in the same proportions as set forth in Mendel's Law, namely, 25 per cent. polled, 25 per cent. horned, and 50 per cent. with mixed character, and also that these horned females from the polled bull never gave birth to a polled calf after being again bred to a horned bull. Thus far Mendel's Law in the hands of many experimenters has always held good, and in future it will doubtless prove of great value to breeders of both plants and animals.

Words of Cheer to Would-be Clover Growers.

The report of the North Dakota agriculturist, referred to on page 774 (May 24th) of this paper, is one of the most encouraging things to Manitoba and Territorial men that has been issued of late regarding this valuable fodder and nitrogen-gathering plant, red clover.

Seeding with a nurse crop is recommended, and good yields are reported, and it is also stated that about one-half the time clover has lived over the second winter, which is little inferior to results obtained in the East.

With alfalfa being successfully grown in Alberta, and clover in the Provinces east of there, the system of agriculture in the West is being improved, so that, while as large or greater yields of grain will be assured, fertility will not be diminished, and the proper development of live

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN MANITOBA
AND N.-W. T.

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stock will become more easy of accomplishment. The future is bright indeed for the farmer who is able to adapt these legumes to his purposes as fodders and soil restorers, and once these legumes are generally grown, the winter menu of beef cattle and young stock will have that variety so necessary to profitable feeding.

The Crop Rotation.

Prof. Wolverton, in a recent issue (May 17th), outlined a crop rotation, and expressed himself as not satisfied with it, and asked the help of our readers in the matter. Consultation of the Dominion Experimental Farms Reports does not give the help to Western farmers that they have a right to expect in the matter of crop rotations. It is only fair to mention that the food washed out the rotation plots at Brandon in 1903. It is significant, or strange, to note in the reports of the rotations as far as conducted that, while there are twenty rotation plots at each farm (Brandon and Indian Head), embracing such crops as soy beans, tares, peas, red clover, alfalfa and alsike, in each year these crops were plowed under, which, it seems to us, should not have been done, or, at least, some such plots in the same crops should have been harvested. It is just such experiments as these which bring experimental farms into disrepute with people who have to make their living from their farms. As a mere experiment, the method followed probably fills the bill, but the mission of the farms is not only to conduct experiments for the sake of the experiments, but for the sake of the farmers and the agriculture of Canada. Neither at Brandon nor Indian Head, in the summary of the three-year tests of the rotations, do we find the grasses, such as rye, timothy or bromo, included, or the effect of corn as a previous crop to wheat, or other grains in a rotation.

The object of a rotation is not the mainte-

nance of soil fertility, but the maintenance of that fertility at the least expense or the greatest profit to the farmer—quite a distinction—the former idea evidently being held to by the Director, while the latter is the idea of a rotation held by the farmers, is what they need and what they are searching for. With the number of plots (twenty of one-half acre each) it should have been possible to include one on which clover was grown as a fodder crop, another to a grass, and again another to corn, even if soy beans had to be left out. The beans do not mature on the farms, it seems, and even if grown by farmers as a green crop, the seed would need to be imported annually. A rotation (four years) recommended for North Dakota is: First year, wheat, flax, oats or barley; second year, corn, roots, rape, peas, manure, timothy; third year, wheat, barley, oats; fourth year, red clover, which is seeded the third year with one of the three cereals, being sown cross-wise of the grain with the drill set at half the depth. The grain stubble is left high for the first winter to hold the snow, and stock is not allowed to pasture it. In connection with the study of rotations, we would urge a careful study of what Prof. Sheppard reports re red clover at Fargo.

Horses.

Popular Colors.

An Assiniboia reader asks the following question: "What are the most popular colors among horse-buyers at the present time, and why should color affect the market value of a horse?"

As a general rule the horse-buying public are not influenced by color fads, unless they see a way to lower prices by professing a preference for a certain color that the seller hasn't got. Within recent years this has been the case in the large American markets. Some time ago, when the color of the Percheron was prevailing gray, people who evidently knew more about color than they did about horses, kept clamoring for a black horse, and, of course, were prepared to pay a bigger price for any gray horse if his color had been only black. This, in time, created the popularity of the blacks. Just how long the blacks will be the rage is difficult to tell, but it may be taken for granted that as soon as the majority of horses coming to market become black there will be a greater demand for some other color by those who hit on every opportunity to keep the price down for the producer. This, of course, applies only in the heavy-draft classes. In the British and Canadian markets color plays but little part. Long ago the solid and staying colors, bays and browns, were given the decided preference, and will most probably retain it, as black, chestnut and sorrel are considered soft colors, and gray is not enduring enough. Of course there will be an occasional buyer who prefers some color apart from the ordinary, but such cases are the exception. With fancy horses for carriage purposes there is quite a common impression that chestnuts or blacks are more popular than bays, but prices do not substantiate this belief, and certainly good horsemen do not ask for anything better than the solid, enduring bay or light brown, as this color is more constant than any of the others, and also more appropriate.

Just the other day, however, we noticed a press report from England which said that grays were becoming more popular for park driving, but it may be assumed that this will not last long, as people first want a good horse, color being a secondary consideration, and all the best breeding stock of carriage horses are now browns, bays or chestnuts.

When on the subject of color, we might just give expression to the opinions of horsemen in Canada upon the persistency with which British breeders breed white legs and white faces upon their Clydesdales and Hackneys. A white on the fetlocks and a star in the face is more or less of a break to the monotony of a solid color, but a great wide blaze and four long white stockings inclines too far towards an extreme, and consequently looks a little out of taste. Nor is the white to be left within the bounds mentioned, but is frequently found in slashes on the belly and up the flank. Canadian buyers, of course, take these "loudly" marked horses because they are good individuals, but if the British breeders would enter to the wishes of buyers over here they would try to suppress some of the white in Clydes and Hackneys.

An Appreciative Reader.

A year's subscription to the paper is as good as a term at the Agricultural College.

PETER HAY.

Untoward Results of Castration.

The results of castration are either favorable or unfavorable, normal or abnormal. The normal or natural results are, a varying but not excessive degree of inflammation, some swelling, a discharge of serum and pus, and usually more or less stiffness. The swelling which succeeds the operation varies very much in different animals; in some it is limited to the sheath, while in others it extends along the abdominal walls, even as far forward as the breast. This, however, need cause no alarm, so long as the animal eats well, and usually a few punctures or scarifications with a sharp knife will, by allowing an escape of serum, cause its disappearance in a day or two; but when the cords become involved to any great extent, alarming consequences may be apprehended, and endeavors must be made to suppress the inflammation by long-continued bathing with hot water and the administration of febrifuges, as four-dram doses of nitrate of potash, three times daily.

Some operators are in the habit of applying irritant dressings, as a mercurial ointment, oil of turpentine, sulphuric acid, etc., to the ends of the divided cords immediately after the operation, in order to produce a discharge of matter. This is a very irrational practice, and calculated to inflict much pain. There is no necessity for establishing suppurative action, but on the other hand, observe all possible antiseptic precautions, as described in a former article on "Castration," which aids rather than prevents the healing process. It will occasionally be noticed that the lips of the wounds unite by a drying of the serum shortly after the operation, and that a considerable effusion takes place into the scrotal sac, which cannot escape. In such cases the rule of non-interference must be departed from, and the said union of the edges of the wound broken down with the finger, which has been thoroughly disinfected with a five-per-cent. solution of carbolic acid. This allows the serum that is present to escape, and prevents the confinement of any subsequent formation of either serum or pus.

The inauspicious or untoward results of castration are: Hemorrhage, paraphimosis, phymosis, hernia, scirrhous cord, peritonitis, gangrene, tetanus, amaurosis and fistula.

From reasons that are impossible to explain, any of these conditions are liable to occur, even after the most careful and skillful operation. Certainly they are more apt to follow a bungling operation, or one in which the necessary antiseptic precautions have not been observed, but they may occur in any case, and the operator cannot be held responsible or accountable for the untoward results.

HEMORRHAGE.—In many cases there is a slight hemorrhage for a short time, or, in rare cases, for considerable time after the operation, the blood escaping in drops or in a slight stream from some of the severed vessels of the scrotum. This need cause no alarm. The animal should be kept as quiet as possible and the bleeding will cease spontaneously, and non-interference is advisable in such cases. When the blood is escaping in a stream of considerable size it indicates bleeding from the artery of the cord, and means must be taken to check it. This, of course, will occur where the proper instruments have not been used to sever the cord; or, if clams are used, where they have not been properly applied, but it is also liable to occur where the operation has been skillfully performed. In some cases the coats of the vessels appear to be weak, and when the escape of blood cannot take place at the severed end of the artery, the vessel, of course, becomes engorged and ruptures above the occluded end. In such cases the colt should be cast and secured on his back, and the cord secured, if possible. If clams have been used this is an easy matter, and it should be drawn out and a fresh clam applied above the rupture. When the cord has been severed with an emasculator or castrator it is often difficult to find. If it can be secured, it must be drawn out and severed above the part from which the blood is escaping. When it cannot be secured the scrotum must be packed with batting soaked in a styptic, as tincture of iron. The side of the sac from which the blood is escaping must be firmly filled, and the lips of the wound stitched, in order to prevent its escape. The colt must then be allowed to rise, and be kept as quiet as possible for about 24 hours, when the stitches should be cut and the batting and all clotted blood carefully removed. In some cases of this kind the bleeding continues, even though it cannot escape through the wound. In such cases it passes into the abdominal cavity, the colt is noticed to be gradually getting weaker, the mucous membranes become blanched, and the pulse gradually becoming weaker and weaker until it becomes imperceptible at the jaw, and the patient dies from loss of blood. A post-mortem will reveal large quantities of clotted blood in the abdominal cavity. "WHIP."

(To be continued.)

The Cloud on the Horizon of Western Horse Breeding.

The discovery of that malignant disorder of breeding horses, termed dourine or maladie-du-coit, in Alberta, among horses on the range, by the staff of the veterinary branch, should cause horse-breeders of Western Canada, especially those breeding horses on the range, to take all care of mares and stallions, especially during the breeding season. While it is not the intention of the "Farmer's Advocate" to play the part of alarmist, yet the situation is such that horse-breeders will need to be on the watch.

When the insidious nature of some equine diseases, such as glanders and dourine, is considered, there can be no great harm done if each and every horseman considers nasal discharges or glects of any kind from the generative organs as suspicious and quarantines the suspects. The Health of Animals Report, 1904, contains the results of investigations made, and the following synopsis of the disease dourine (equine syphilis):

The cause of the disease is a trypanosoma, similar to the Surra parasite, and it is conveyed from diseased to healthy animals mainly during the act of covering. The symptoms in the horse are very insidious. It commences in a mild manner, attacking at first only the external genital organs; this is soon followed by enlargements and swellings, then by an eruption somewhat similar to nettle rash. Finally it affects the lumbar nervous system, causes nervous degeneration, emaciation, paralysis of the hind limbs, and death. Although the horse is able to cover some time after affection, there is not a doubt that he is unable to propagate, even though there be barely any clinical symptoms of his being affected. The disease is, as far as we know, incurable, and moreover, the horse is a source of infection to mares, the latter contingency being an extreme danger, as to anyone without professional training, the ordinary symptoms are almost unnoticeable.

In mares the diagnosis is even more difficult, and the nature of the disease more insidious than in the horse. They are, nevertheless, capable of conveying infection from the first onset of the disease, from which time they also appear to be sterile. This it is that makes the question such a serious one to deal with. The difficulty of localizing or saying definitely how far it exists, can be realized only when we take into consideration the number of mares in outlying districts which are seldom seen by anyone acquainted with the disease, and, if they are, fail to show any symptoms to an ordinary observation.

Every precaution is, no doubt, being taken, but the incurability of the disease, the fact of its rendering animals sterile in the very early stages, and the impossibility of saying definitely to what extent it exists among the mares of the country, render it a decidedly difficult matter to combat.

The above disease was found at Lethbridge, and the affected ones are reported on as follows:

The stallion presented a general unthrifty appearance, was quite emaciated, eyes and nostrils weeping, scrotum thickened and of a doughy consistency, two plain cicatrices on under surface of penis just below inferior border of prepuce. No plaques showing, but owner gives history that would indicate that they have been recurrently in evidence. Meatus highly inflamed, constant dripping of mucous from urethra, voiding of urine frequent and attended with considerable discomfort.

Of the fifty mares, about fifteen are quite suspicious. Several show vaginal discharge and defective muscular co-ordination. Several had small white spots on vulva and cicatrices on vaginal mucous membrane. One mare showed

two well-defined plaques. In addition to the symptoms which were in evidence, we have the history of a large percentage of abortions.

The following regulations from the order-in-council, of July 8, 1904, should be studied and observed:

4. No entire horse more than one year old shall, after the passing of this order, be permitted to run at large on unfenced lands in the Territory of Alberta, or in that portion of the Territory of Assiniboia lying west of the third principal meridian, and any owner of horses failing to comply with this order shall be deemed guilty of a breach of these regulations and of the Animal Contagious Diseases Act.

5. Any entire horse more than one year old found running at large within the area defined above, may be seized and held on the order of any duly authorized veterinary inspector of this department, who shall forthwith, whenever possible, notify the owner of the said horse of such seizure, and the said horse, if not claimed within thirty days of such seizure, may be castrated, and no indemnity shall be allowed to the owner in case of damage arising out of or resulting from said castration, seizure or detention.

Compensation is now paid for horses killed on account of dourine or glanders by Dominion Government inspectors (there are no district veterinarians now in Manitoba), and there is no excuse for concealment. Be patriotic, and notify the authorities of suspicious cases; to harbor disease is only one grade below harboring a criminal.

Prevention and Treatment of Joint Ill (Navel Ill) in Foals.

This scourge of the stud, nowadays, is best handled by preventive measures; curative attempts are rarely successful. The disease is not confined to any country, but seems to thrive especially where horse-breeding is carried on and foaling occurs indoors.

An Old Country authority suggests that the navel string (umbilical cord) should be tied with a ligature of strong, soft thread, well soaked in a solution of carbolic (1-20) or corrosive sublimate (1-100), and that the cord itself should be painted with some protective preparation, such as collodion (if used, keep lighted lamp and matches away, as it is inflammable), to which is added one-tenth part of carbolic acid or iodoform. A cheap mixture is one of corrosive sublimate in one thousand of methylated spirits, or the following: Carbolic acid, 2 ounces; camphor, 5 ounces; resin or shellac, 1 ounce; methylated spirits, 15 ounces.

But there may be readers unfortunate enough to have animals infected and not willing to destroy them without an attempt at cure. As the odds are long against recovery, we may take the risk of heroic measures—"kill or cure," as it is said. A four-per-cent. solution of formalin, injected at a number of points over the swelled joints by means of a fine hypodermic syringe, has been known to have an excellent effect; so has a five-per-cent. chinisol lotion, and the like strength of iodine of potassium in solution. The internal administration of antiseptics in doses short of being poisonous is worth trial. Twenty to sixty drops of pure carbolic acid in two drams of glycerine and two tablespoonfuls of water, night and morning, or dram doses of chinisol in a few ounces of water, may be given. Whether or not the internal treatment is tried, we may quite safely, and with some hope of success, if not much, daily rub the enlarged joints with glycerine of iodine, which is a penetrating preparation of iodine that does not readily blister if frequently employed. It is important to keep the little patient feeding, and if appetite is not lost he may be helped to the teat or bottle with milk drawn from it.

Care of Horses.

The importance of being regular in feeding and managing horses, says a writer in an English exchange, cannot be overestimated. If an animal gets its food given regularly it will be much better able to do its work.

Not only is the time of feeding important, but the quantity is equally so: starving them one time and gorging them another, is the surest way to bring on disease, and to unfit a horse for rightly performing its daily work. It should be remembered that the horse has a small stomach, and should therefore be fed pretty often—at least three times a day.

All horses seem to have a natural disinclination to eat up what has lain before them for some time, so if as much food is placed before them as will be eaten up in a short time, it will be better relished and a saving effected.

Keep their mangers and feeding troughs clean, and allow no accumulations of filth. When horses are feeding see that they are disturbed as little as possible, for to be upset by any distracting noise induces in horses the bad habit of bolting their food.

See that horses have a sufficient supply of fresh water when in the stable. An animal fed on old hay or dry food may appear to be quite satisfied, but when a drink of water is given it will oftentimes begin to eat with renewed avidity.

Water should be given to horses before anything else in the morning, and one hour should elapse before they are brought out to work. This will ensure them having had sufficient time to get a good meal before starting the day's work.

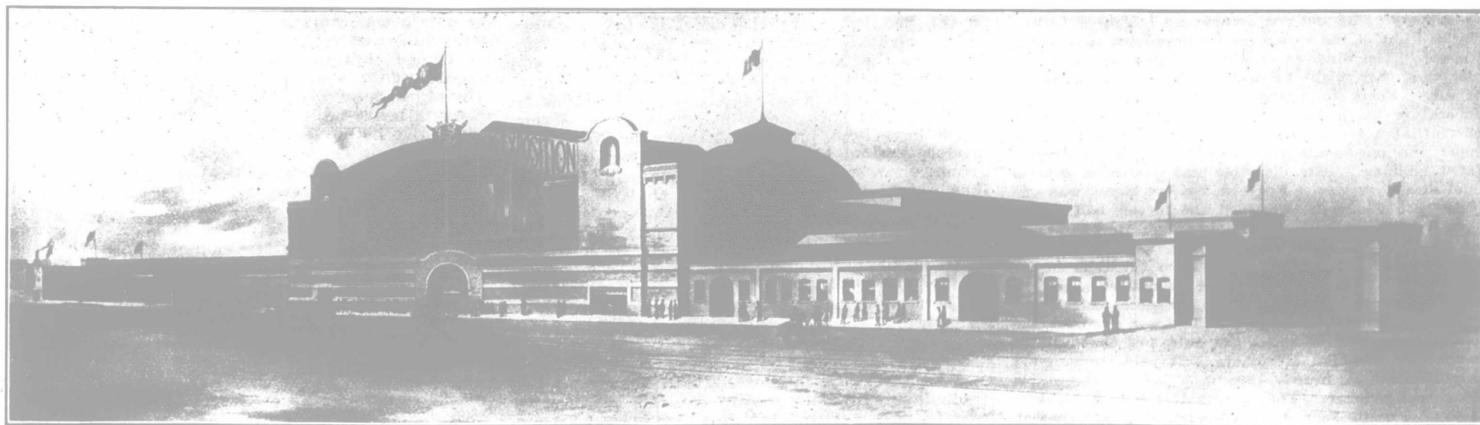
When at work in summertime and when the horse is turned out in the evenings onto the pastures, the stable has then a good chance of becoming sweetened and aerated, but when the stalls are occupied most of the day and the night through, it is doubly important that the stables should be kept clean and sweet.

No man worth his salt will neglect to remove the droppings at least once a day, and twice will be better still. See that the stall is well supplied with litter. It is, however, a mistaken idea to think that the more straw there is piled about the horse the more comfortable he will be. A moderate quantity well spread is better. Do not allow rubbish to accumulate about the manger. Piling it at the head of the stall is very objectionable to a horse standing in the stable, as foul ammonia gases are given off, besides encouraging rats and mice to harbor in it.

In addition to making the surroundings of the animal as clean and wholesome as possible, it is necessary to give attention to the cleanliness of the animal itself. Grooming and cleaning should receive careful attention, and on no account should the work be scamped. Observation leads one to form the opinion that this part of stable management does not receive the attention it once did, nor as much as it deserves.

The feet also require attention. When a team has been out on a wet day, especially on heavy land, the feet will be filled up with earth, which ought to be cleaned out at night.

Do not forget that exercise is essential to all horses when they are standing in the stable the day long. To give the animal a short run will put new life into him, besides promoting his general health. No horse can be expected to pull a ton weight to market or bring home a similar quantity of stuff if he has been standing in the stable the most of a week without having been out of the stable door. Exercise should, therefore, be given some time during the day. Of course, there are generally a few odd jobs to do on the farm, which, if all the horses get their turn, will make exercise less necessary.



The New Home of the International Live-Stock Exposition, Chicago.

Dimensions, 310x600 feet; seating capacity of amphitheatre, 10,000. To be finished Oct. 15, 1905. Total cost, \$300,000.

Breeding Fancy Horses.

"A Practical Breeder" says in an exchange: "I have no fear of the automobile hurting my business. Would you allow me to have a little to say about breeding for show purposes, which, now that horse shows are becoming so common, appears to me both feasible and likely to prove profitable? Show animals cannot be produced by promiscuous breeding operations. The foundation stock of a show-horse breeding establishment must comprise approximate perfection. The proprietor of a show-horse stock farm will need to make his selections from such trotting families as have won a reputation for individual excellence. Many families are renowned for extreme speed, and as fast performers have been the best sellers, breeders have sought to produce a champion speed performer, rather than a champion show animal. Some strains of breeding, like the Daniel Lamberts, Mambrino Patchens and Clays, were celebrated for faultless proportions. Mambrino King, King Rene and Nelson achieved renown in the show-ring, as well as the sires of speed. If two sires were selected of the most approved type and from families of natural equine beauty, and bred to the right kind of mares, and the resultant foals crossed back to opposite sires, a show breed of animals might be established. Mares that produced superlative offspring should be retained in the harem, and dams that dropped only ordinary-quality foals should be discarded. The evolution of a breed of show animals is reasonably within the purview of possibilities. It could not be consummated in one equine generation, but a course of experimentation within the principles of methodical selection will assuredly achieve success. It is a consummation as easily attained as the development of the present breeds. Intelligence and perseverance, with the proper foundation stock, will establish a breed of show animals as certainly as other breeds have been evolved by patient application of the methodical laws of reproduction."

There is no doubt that by selecting such mares as the writer refers to, and then introducing some choice Hackney blood, the very best type of carriage horse can be produced, even better than pure-bred Hackneys in some respects, for the cross of trotting blood would give a little more stamina to the offspring, and the Hackney would certainly give grace and style.

Stabling and Feeding Horses.

(Ottawa correspondence.)

In a recent address before the Ottawa Agricultural Committee, on the "Construction of the Horse Stable and Care of the Horse," Prof. J. H. Grisdale, Agriculturist at the Central Experimental Farm, said that the horse stable must be economical in space, as it will be found much easier to keep a small stable warm than a large one. It must be conveniently arranged, in order that the horse can be properly cared for with as little trouble as possible, and he advised a separate building, in order to secure light and ventilation more easily; good ventilation is necessary.

Mr. Grisdale showed a diagram of what he considered a good horse stable for the average farm. On one side were shown six stalls, six feet wide, and on the other side a box stall, one single stall, harness room and feed room. The two latter should be boxed in closely. The feed room should be divided into two compartments, in one of which bins for grain should be arranged, and a space left for the rough fodder, while the other should be kept for a mixing room. It was a good plan to have a stove in the harness room. This would enable the farmer to keep the temperature of the room sufficiently warm to permit him making any repairs to the harness, etc., without unnecessary labor and inconvenience. The rough fodder could be stored overhead, and it was also thought advisable to have a small granary above the feeding room. This would economize labor considerably. For flooring, Mr. Grisdale recommended planks over a cement bottom, leaving a small space between. He did not consider that cement, without the planks, made a good floor, as it became too slippery. He did not recommend having a feeding alley in front of the horses, as he considered it a waste of space. The windows should be sliding or hinged, in order that they might be opened on warm days to admit air. Forty to forty-five degrees was about right temperature for a horse stable. A horse kept in a well-ventilated stable was less liable to attacks of distemper and pneumonia than one kept in a poorly-ventilated building. His digestion and health in general would also be better. For bedding, cut straw was one of the best materials, provided the farmer had plenty of it. If straw was scarce, however, it was more economical to use it without cutting, as it required a great deal more to bed a horse when cut than in its natural state. A member of the committee asked of what value was sawdust? It is very economical, but the manure with which it is mixed is not good for the land. Heavy clay is about the only soil that will be benefited by this kind of manure. It paid to use good heavy blankets on horses when they were in the stable during cool weather. They look better if kept blanketed, and are easily kept clean, although a certain amount of grooming is essential. The horses should be fed regularly, and at the same time each day. The morning feed should be given about 1½ hours before taking them out to work. They should be watered about fif-

teen minutes before getting their grain. In the evening they should be given all the water they could drink about two hours after they had finished their feed. Under ordinary conditions about one pound of roughage and one pound of meal per day was sufficient for every 100 lbs. weight of horse; that is, a horse weighing 1,300 pounds should receive 13 pounds of hay and a similar amount of meal per day. Mr. Grisdale recommended feeding about 1-5 of the hay and 1-3 of the meal in the morning, the same quantity at noon, and the balance in the evening. The horses should not have more hay put before them than they would eat with relish. Cut hay, with the meal mixed in it, Mr. Grisdale said, was about the best feed for horses.

Stock.

Treatment for Contagious Abortion.

The above disease is so on the increase and so serious that the recent address by Mr. Jas. Peters on the subject is given here in condensed form, and in a manner easily understood:

I will give you, he said, in the briefest manner possible, an outline of the treatment I have adopted for the past fifteen years, both as a cure and a preventive. I do not for one moment claim that it is infallible, neither do I urge it on anyone. I have no personal advantage to obtain from its adoption. I can only say I have found it an invariable success. I give each cow a half-ounce dose of Calvert's No. 5 (crude) carbolic acid three times a week, or daily, if necessary. My mode of administering it is this: Take the requisite amount of acid—that is, half an ounce for each cow—add a little glycerine in order to make a perfect emulsion, mix with sufficient cold water to make a bran mash for each cow; then add the bran, mix thoroughly, and divide the mash equally among the cows. In some cases a cow will, for a time, take exception to the smell of the mash, and in such cases I commence by giving her a quarter ounce or less, which is the maximum quantity I have been able to get a cow to take at a time. In addition to this, all cows should be frequently injected with an antiseptic solution, such as corrosive sublimate as recommended by Nocard, or, as I much prefer a coal-tar disinfectant, Jeyes' Fluid (practically creolin), for instance. These injections should be given at intervals of a fortnight, during pregnancy, up till within six weeks of calving. In any case where abortion is suspected to be in the herd, the bull should be carefully disinfected after serving each cow, by injecting the sheath with a disinfectant solution.

I have also found excellent results, as a preventive, from daily spraying the hindquarters of the cows, after milking, with a solution of Jeyes' Fluid (creolin), 1 in 30. This is easily done with a garden syringe, and is an excellent means of preventing the germs of abortion from entering the womb.

QUARANTINE AFFECTED COWS.

All cows that show any signs of approaching abortion should be immediately isolated. All afterbirth and discharge should be burnt, as well as all litter, and the place thoroughly disinfected. The vagina should be flushed daily until all discharge is cleared away, and afterwards (frequently) for three months before being bred again, the carbolic acid mashes being given about three times a week.

I was discussing the question of abortion with a veterinary surgeon the other day, and he mentioned a herd which he had cleared of abortion recently by frequently washing out the womb with a chinolol solution, and finally correcting its acid state by an alkali injection before serving the cow again. I understand this treatment was a complete success. If so, it seems quite simple, and well worth trying.

In conclusion, I should like to say a word as to the disinfection of the navel of the new-born calf, which, I think, is most important. Immediately the calf is dropped the navel-cord should be dressed with a strong disinfectant solution. I use crude carbolic acid, and this rapidly dries up the cord, and thus prevents the entry of germs, which have been proved by Professor Nocard to produce various kinds of scour. There are strong grounds for suspicion that the germ of contagious abortion and that of calf cholera, if not identical, are very nearly related, and anything that can be done to combat them should have the untiring attention of cattlemen.

It is significant that Mr. Peters' suggestions in the way of treatment were supposed before the commission on contagious abortion in 1891.

Very Much Pleased.

I was very much pleased with the stand you took last fall with regard to the grading of wheat. Your editorial, "Not Quite Good Enough for a Two," was all right. The grain-growers should be wide-awake in looking after their interests the coming season. M. TURRIFF, Rapid City.

The Dual-purpose Cow.

To the Editor "Farmer's Advocate":

In your paper of the 3rd inst. you strike an old chord—that is, it is old in countries that have gone through the ordinary course of agricultural evolution, which Manitoba, the Northwest Territories and British Columbia are only now starting out on. In the article to which I refer, you say "The Dairy Industry Must Flourish." Yes, indeed it must; but will it by conducting a dual-purpose business? Are the new farmers and wheat men so hard to teach that you want them gradually to work their way up over the general-purpose route to a cow that will produce butter? Would you advise a man to try to raise another Dan Patch by starting with a general-purpose horse? No; I know you would not by the advice you gave farmers in the matter of Hackney and German Coach stallions. That was sound and good, and the same line should be followed with the cows—go back to the beginning and start with what you want. Does Manitoba get her reputation by raising a dual-purpose wheat? I think not. From your editorial on the dairy, I had a feeling that you were trying to break the news gently and let the man who does not want to hang onto the cow's tail down easy. But I cannot agree with that; the best course would be to wake him up, and tell him to get a few pure-breds of known butter quality. Start in at once with what he has to come to eventually, else why have pure-breds in anything? One class of cows is bred for butter, another for beef; and it is so seldom that the two are combined that when a man tells you that he has the best strain of butter Shorthorns, you at once know he owns the exception that proves the rule. So, if a butter-producing beef cow is not the rule, where is the profit in raising anything but what will produce the goods? By all means get the best you can out of what you have got by the use of the Babcock test, and then leave alone the grade bull, and you will have a herd well above the average in their line, and when the course of evolution hits you a good bunch of stock will be for sale to the other fellow, and you will increase your knowledge in butter producing at the same time and own one of the finest milk breeds in existence.

I do not see where you are going to get a system whereby big, heavy and persistent milking cows drop calves that will make useful steers. Will you not have to start a new breed? That, of course, would be possible, but hardly probable, when you remember that the improvement of any one breed takes a lifetime, and that breed already more or less established, and also that many of the best breeds of all kinds of stock have evolved with the nation occupying the country in which they are to be found.

Under your invitation, "Suggestions How to Improve the 'Farmer's Advocate,'" I might say that any of my neighbors who have had the loan of my copy, have remarked, "There is nothing in it that suits us in B. C., but only teaches the wheat man how to grade his wheat." Personally, I find a great deal that applies in all countries, and appreciate the paper. Could you devise a page that would take "Fruit in a Fruit Country," and cover the cleaning of land. Also, would it be a possibility to find a really good expert on irrigation, even if you had to find him in Utah, to write a series of articles that might be a boon to us who live in a semi-arid country. Westbank, B. C. E. NANE D. DE LAUTOUR.

[Note.—Our correspondent's criticism is temperate and friendly, and as such is welcomed, as he shows a real desire to improve things. We might say that, speaking on the advice tendered re dairying, the "Farmer's Advocate" believes in being evolutionary, rather than revolutionary. The dual-purpose cow argument, pro and con, is hardly worth engaging in; it will have to be ranked with race and religious controversies. It cannot be denied that by careful selection the bovine stock can be improved, and we are firmly convinced that by using only the big, strong, persistent, heavy-milking cows and breeding such to pure-bred bulls, a most marked improvement will result. The prairie country is not suited to the special dairy-bred animal, such as the Channel Islands breeds are. It is different in British Columbia, where the climate is more equable and pastures more succulent. There is, however, one thing the prairie farmer cannot afford to overlook, and that is the value of the calf; from a bull of the dairy breeds it is of little value. Note what Mr. Simmons says in issue May 24th, and also Martin Flynn on Shorthorns. The great need, after all, is to preach the gospel of the extermination of the weed, the mongrel, the grade bull, et al.]

A new town in the East Mountain Valley district has been named Earl Grey, after our new Governor-General. It does not differ in character from others of our prairie towns, except that it is "going" to be the "biggest and best."

Parents' Influence on Progeny.

Dealing with living things, with animals or plants, we have yet so much to learn of the reason why we get certain results in our daily work, that it would often appear that we are groping in the dark, and playing at a hit-and-miss game in our breeding of animals and plants.

A great deal of time and much energy has been expended in endeavor to discover some laws of breeding that would enable one to carry on his breeding operations more intelligently and with some idea of what to expect in the offspring. Very little systematic work has been done, however, but it is noteworthy that several careful experimenters and observers have been most successful in their efforts. As a result of this we at present have at least a partial understanding of the laws of nature that govern the transmission of characters from one generation to the next. What we know, while only a smattering, is enough to indicate that there is much yet to be discovered, and that patient and careful work will be rewarded by the discovery of more of nature's truths and of her ways of working wonders.

For our present knowledge of the principles of heredity credit is largely due to a German monk called Mendel, who lived and worked in his garden about forty years ago. He discovered and gave to the world what we know as Mendel's Law. It is only about five years since the results of his researches really came to light, as through their early publication in a somewhat obscure magazine, they were soon unnoticed, and it was not until 1900 that they were rediscovered. Since that time his results have been verified by various workers.

Mendel worked largely with garden peas. He selected plants having different and opposite pairs of characters; for instance, smooth and angular seeds, long and short stems, full and constricted pods, white or gray seed coats, etc., and crossed the plants exhibiting the opposite sets or characters with one another. The plants produced from the cross-bred seeds were allowed the next season to fertilize themselves, and notes were taken on the proportion of the different types of plants produced. The seeds of these were again sown and the nature of the plants carefully watched through this and succeeding generations. In the first generation of the hybrids Mendel found that a certain proportion exhibited the character of the male parent, and in succeeding generations produced plants of that type only. The same proportion exhibited the character of the female parent, and the remainder were of an intermediate or hybrid nature, although having the appearance of belonging to one or other of the two classes already mentioned. In other words, a certain proportion of the offspring were pure-breds after the character of the male, and in future generations were incapable of producing anything but individuals having this character in a pure state. About an equal proportion transmitted the pure female character. The hybrids gradually split up in succeeding generations into individuals exhibiting the pure male or the pure female character.

In speaking of male and female characters, it must be borne in mind that only one set of unit characters is referred to; for instance, in wheats, the bearded and beardless characters; and in animals, the horned and the polled characters; the one being exhibited in the male parent, the other in the female parent.

To take for the purposes of illustration the polled and horned characters, according to Mendel, although he did not work with these special characters in breeds of animals having horns there is always present a latent possibility of a polled animal appearing; the horned character is "dominant," and the polled character "recessive." In each germ cell of the male and of the female there are present the two elements that go to produce the offspring, either horned or polled. In our polled breeds the polled element is the stronger, and hence we scarcely ever see any evidence of horns appearing; in our horned breeds, the opposite is the case. So long, therefore, as horned animals are crossed with horned there is little likelihood of any but horned offspring appearing; but when a horned animal is crossed with one that is polled, we may have one of three produced—either an animal with a pure-horned character and capable of producing, with horned mates, all horned stock; a pure-polled animal that will produce on polled stock only polled progeny; or hybrid stock that would, gradually, in future generations, split up into individuals exhibiting only the two pure characters.

Animals need not have any appearance of being hybrid, but have one character apparent, the other latent or recessive. It will thus be seen how, through the appearance of only one polled individual in a horned breed, the whole breed could eventually be polled.

In crossing two varieties of wheat, one bearded and one beardless, in the product of the hybrid, one proportion about 25 per cent. would be pure-bearded, and the remainder or one-half of hybrid character, but exhibiting the appearance of either of the two parents, whichever was dominant. The second generation, the 25 per cent. pure-bearded would produce nothing but pure-

bearded plants, the beardless nothing but pure-beardless, and the hybrids would split up in the proportion of two hybrids, one bearded and one beardless. In subsequent generations the proportion of hybrids would gradually decrease, and the plants with pure characters gradually be differentiated. In other words, and according to the language now more commonly used, in the course of a few generations the characters would become fixed. One of the great differences be-

tween these principles of breeding, as enunciated by Mendel, proven by various other experimenters and now generally credited, and those formerly accepted, is that all the progeny of a cross was considered hybrid in character and would continue to vary for a number of years, but according to Mendel, the characters of a fixed proportion of a cross are fixed as firmly in the second generation as in the tenth. A vigorous selection in the second generation would, therefore, result in the elimination of many individuals that could not possibly produce what was required. But even with what Mendel has given us as the result of his elaborate experiments and with the discoveries in recent years by others working along similar lines, the door has just been opened to a field of unlimited expanse for useful work. The principles that apply exactly to one kind of plants may be different for another, and again different with animals. There is no longer any doubt, however, that there are laws that underlie the transmission of characters from generation to generation. What we hear spoken of day after day as prepotency, atavism, etc., are merely terms expressing phenomena unexplained. It will be the business of the animal and plant breeders in the next decade to get at the reasons why we find in breeding what we do. Winnipeg, Man. JAS. MURRAY.



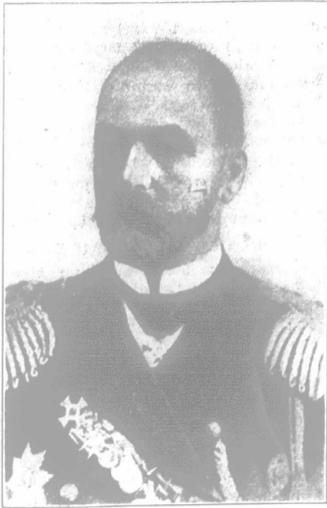
Admiral Togo.

Commander of the victorious Japanese Navy.



General Linevitch.

Commander-in-Chief of the Russian army in Manchuria. He is sixty-five years of age, hale and vigorous, and is the idol of his men.



Vice-Admiral Rojestvensky.

Vanquished Commander of the Russian Squadron

The Argentine Government Has Become Suspicious.

The Farmer and Stock-breeder, in a recent issue, comments on the large number of British cattle that have failed to pass the tuberculin test—some 77 in three months, whereas previously, from 1898 to 1904, only 412 were rejected. The quotation below, from our contemporary, is so naive that we cannot resist publishing it:

"We agree with our contemporary that something is wrong somewhere. Were all those slaughtered passed before being shipped? Are our veterinarians so inefficient that they fail to detect so large a proportion of diseased animals? It would be interesting, and indeed useful, to have in each case a post-mortem examination to reveal the truth or otherwise of the tuberculin diagnosis. Our representative in that country should have immediate instructions that in all cases where an animal is condemned for tuberculosis a post-mortem examination be conducted by the highest authority procurable. It is indeed surprising that the proportion of rejections should have jumped to such large numbers so suddenly."

To those "in the know" it is not at all surprising that rejections should have jumped so, but it is surprising that the Argentine authorities did not tumble to the trickery that had been going on more quickly. It only took the Canadian Government two years to take measures to stop it, and by so doing avoided putting temptation in the way of our weaker brethren across the seas. As one Scotch breeder, in conversation with the writer as to how they (the breeders) beat the test, said, "It is no use being mealy-mouthed about it, I admit it has been going on right along." As long as the craze for certain Shorthorn families exists, thereby limiting buyers in their choice of cattle, and as long as the test is demanded of those cattle, so long will be found fellows trying to beat the test and the official administering. A little common honesty is the need at the present time, and the man that will undertake to beat the test is just as likely to fake a pedigree. In the words of our Scotch friend, "There's no use being mealy-mouthed about it," if the miserable business is to be stopped.

Rearing Orphan Stock.

During the spring-time the farmer is kept busy looking after the welfare of new arrivals among his live stock. When all goes well with the dams, and they have plenty of milk, the youngsters thrive apace, and the labor of the attendant is somewhat lessened. But should the death of the mother occur, and natural nursing be impossible, then very frequently the process of bringing the orphans up by hand has to be resorted to. Lambs take more readily to hand feeding, as a rule, than any other stock. If strong and healthy they are almost sure to thrive; if weaklings, they might go to the wall in any case. It is very necessary to remember that "little and often" is the rule to observe, and that the little creatures are not killed by too much kindness, or rather, by too much food. The women-folk usually take the work in hand, and with no little success. The lamb's feeding tin or bottle should be kept clean, and be frequently scalded, and the piece of soft rag which is usually twisted round the spout of the vessel, be frequently renewed, as it will otherwise become foul and ill-smelling from getting soaked with milk. If used in a dirty state, it will be quite sufficient to set up scour in the lambs.

Select a cow the quality of whose milk can be depended upon as good, and do not change about, but keep to her milk for the lambs. This will be far better than feeding them indiscriminately with the milk from any cow. The better the milk, the better will the lambs thrive. Ewe's

milk is richer in all solids than cow's milk. Add a little sugar and lime-water, and feed just nicely warm, as though it were newly drawn from the cow.

Young pigs are more troublesome to bring up by hand as a general thing, but this method is often practiced with success. The small farmer is anxious to lose no stock that can be reared, and so any trouble involved is not minded. It is not worth while bothering with weaklings, but in the case of valuable stock and strong, lively youngsters it is another thing.

Here, again, it is best to use milk from one cow all along, and to choose one who gives good milk. The milk of the sow is very rich; feed warm, adding just a small portion of sugar and a drop or two of cod liver oil. "Little and often" should be the motto.

In the case of a motherless foal, cow's milk, with a teaspoonful of sugar, and half a cup of warm water added to each pint of milk, may be successfully used.—[Agr. Gazette.

Farm.

Farmer vs. Professor.

To the Editor "Farmer's Advocate":

In your issue of May 17th I read with much interest the analysis by Prof. Reynolds, of Guelph, of the two soil-moisture theories advanced in the "Farmer's Advocate." The experiment he performed to show that moisture arises in the soil by capillary or molecular attraction has been the refuge of nearly every one with whom I have discussed this subject, when the glass tubes and water-tanks became untenable. We are taught in a book, issued from the Guelph Agricultural College, that, "In dry weather the moisture at or near the surface of the soil goes off as invisible vapor into the atmosphere, and the water from the subsoil rises by capillary attraction to take its place." If those who wish to defend this doctrine would keep out of water-tanks and mud puddles, and deal with the dry-weather condition, we may get at the science of soil moisture, and be able to give a rational, scientific explanation of the best methods of tillage to control the moisture supply. The experiment, "A box with a sieve bottom, filled with soil, this soil saturated with water, then dry earth applied, drawing moisture from the muddy surface," is simply juggling with nature; and a proof that moisture over the amount that can be held by the soil particles, in a state of nature, in dry weather, is still present.

The Professor falls into the too common error of performing an experiment and then fitting it onto nature; whereas he should have first closely observed nature, and modelled his experiment accordingly. The sieve bottom corresponds to underdrains. The soil in the box has not the porosity of soil in the state of nature, the pore spaces formed by rootlets, etc., being wanting. So that if the dry soil were applied shortly after saturation, it would be more of the nature of a water-logged soil, than one from which all free water was removed. The final act in applying dry soil instead of heat to the surface destroys its analogy to nature, and renders the experiment valueless. Had the Professor applied heat and found out that the soil dried out gradually from the surface downwards, like any other old porous thing, we would be one step in advance of the idea that evaporation takes place at the surface only, and that the soil particles pass moisture up from one to the other like a bucket brigade.

The professor admits it is conceivable that vapor rising through the pores of the soil in the night might be condensed by the cooler layer on the surface. It appears to me that this is a matter that may be demonstrated to be a fact.

But, he says, "Such cannot take place under normal conditions during the day time, and yet we notice that the surface soil once dry may become moist at any hour of the day if the conditions are favorable." From this we are led to infer that capillary attraction must be the only explanation of the soil becoming moist at any hour of the day. I do not know what the Professor means by this—whether the occurrence is intermittent, or constant under certain conditions; neither do I know what the favorable conditions are; but I do know that this method of reasoning is not sound, as it has not been shown that no other explanation is possible.

Absorption from the vapor-laden soil-air might explain it. During the heat of the day the expanding soil particles contract the pore spaces. The soil-air also expands, consequently air must be forced out of the soil during the heat of the day, which is also the time of greatest internal evaporation. Is it not reasonable that the drier surface soil, or well-pulverized dust blanket, through which this vapor-saturated soil-air must pass, will absorb a certain amount of the vapor, and thus account for the phenomenon, if these are the favorable conditions?

Argyle, Man.

ALEX. M. CAMPBELL.

The Culture of Sugar Beets.

In view of the interest being taken in sugar-beet culture, excerpts from a recent bulletin of the Wisconsin Experiment Station, written by Prof. Woll, will be found interesting:

SOILS PREFERABLE FOR SUGAR BEETS.

The best kind of soils for beets are medium soils, either loam or sandy loam, in a good state of fertility, that are well drained, and plowed and subsoiled to a considerable depth, preferably 16 to 18 inches, so as to allow the beets to develop symmetrical, gradually-tapering roots. A forked, misshapen beet is conclusive evidence of too shallow plowing or a heavy packing of the land, that prevented a natural development of the beets. Other than soils of medium texture are, however, capable of growing beets of excellent quality and with satisfactory yields. The treatment of the soils, as well as the care, and especially the harvesting of the beets, become more difficult in the case of heavy clay soils. Humus soils are less adapted than loamy soils, because they are wet and cold in the spring, and the growing season of crops planted thereon is, therefore, late and shorter than with soils rich in mineral components; the beets grown in humus soils are also apt to be lower in sugar and in purity than those grown in other soils, on account of the large amount of organic matter humus soils contain, but it has been shown in experiments conducted at our Experiment Station Farm, that beets containing at least two per cent. of sugar above factory standard may be grown upon such soils with proper fertilization and cultivation.

The character of the season will influence greatly the comparative value of different soils for sugar-beet culture. In a cold and wet season light soils will have the advantage; in a dry and hot season heavier kinds of soils and bottom land or humus soils will produce the best results. Satisfactory yields of beets can, however, be obtained in almost any kind of rich well-drained soil, with the right cultivation and proper attention given to the crop.

DATES OF PLANTING, THINNING AND HARVESTING BEETS.

The majority of the farmers forwarding reports of their last year's experience in beet culture, planted their beets about the middle of May, say between the 10th and the 20th of May. In the north, as previously stated, the season was unusually late, and the beets were planted at least two or three weeks later than can ordinarily be done. Early planting is advisable, so as to secure a long growing period and make it possible to thin the beets before hot summer weather sets in. The field may then be "laid by" about July first, or before, and the beet roots will be in position to go down into the ground for water in case of midsummer drouth. The argument against early planting is the supposed danger of frost in spring or early summer, but there is no serious danger to beets in this respect, since the young beet plants are quite hardy and grow very thick in the rows, so that no harm is done if a few plants are nipped a little by frost. Fall-plowing of the beet field is of importance and to be recommended, both because it enables the farmer to more easily prevent the growth of weeds in the field, and renders possible earlier preparation of the land and planting of seed in the spring.

INFLUENCE OF FERTILITY OF THE SOIL.

Good yields of beets can only be obtained on land that is in a good state of fertility. Soils that are naturally poor or are worn out by continuous cropping are not adapted to sugar beets; a judicious system of working up such land should be commenced by application of farm manure or commercial fertilizers, and by cultivation of crops in regular rotation. Farmyard manure is preferably applied to the crop preceding beets, or if applied directly to the beets, always in the fall before the land is plowed, so that the manure may be thoroughly decomposed in the early summer. It will then readily yield up its store of fertilizing ingredients to the beet roots when these are ready to make use thereof. Green-manuring, by means of leguminous crops, is advocated by some writers, for the purpose of increasing the humus and nitrogen content of the soil, but where sufficient live stock is kept to consume most of the rough feed produced on the farm, it is, in general, under ordinary farm conditions in this state a better plan to feed the crops to farm stock and take good care of the manure produced by the stock.

METHOD OF GROWING SUGAR BEETS.

In order to reach the best results for factory purposes, the beets should be planted on thoroughly-prepared land that has been plowed deep, and, preferably, subsoiled. Fall plowing, as stated, is always to be preferred. The seed is planted in rows 18 inches apart, using 18 to 20 pounds of seed to the acre, and burying this about one-half of an inch deep. The land is frequently cultivated and hoed during the early part of the summer so as to retain the moisture of the soil and keep the weeds down. Weeds in the beet field reduce both the tonnage and per cent. of sugar in the beets. The beet plant has been brought to its present wonderful development through the most painstaking methods of selection and culture, and unless it receives favorable growing conditions, entire possession of the

field, and an abundant food supply in the soil, its sugar content will be below normal, and may be reduced to a content similar to that which it had when the improvement in quality was commenced, about a century ago. In our trials with high-grade beet seed we have found the sugar content of the beets reduced from over 15 per cent., when the crop was given proper attention, to below 9 per cent., when the beets were grown on weedy land under wrong cultural methods, and weeds were left to grow up with the beets.

The beets are thinned when three or four leaves are formed; the thinning is done by bunching the beets, i.e., cutting out with a sharp hoe all the plants at regular intervals in the row so as to leave small blocks of beets one to two inches long, which are next thinned, leaving one strong beet plant every 8 to 9 inches in the row. If the rows are 24 inches apart, the beets in the row should be somewhat closer than this.

The cultivation of the field is continued until the beets nearly fill the space between the rows, when the field is "laid by" until harvesting time, except for going over it once or twice hand-pulling single weeds that may have escaped attention. In our State the best fields are generally laid by during the middle of July or before, leaving the beets nearly three full months after this period in which to grow and mature. Harvesting may begin when the leaves assume a uniform yellowish color. The best harvesting time varies with the character of the season; ordinarily the beets are sufficiently mature by the half of September in the southern part of the State to be acceptable at the factory, but the yield of beets and per cent. of sugar will be improved considerably, under favorable weather conditions, from this time on until frost sets in. It is, in general, safest to plan to have the harvesting finished toward the end of October or before. The beets may be thrown into piles in the field as topped, and covered with leaves or dirt for protection against frost. If delivery is delayed until after November 1st (when the factories pay 25 cents extra per ton of beets), they should be thrown in large piles and protected by a three to four inch layer of dirt. They will keep safely in this way for a limited period of time until the worst rush at the factory is over, when fall plowing and other fall farm work is out of the way, or when cars can be readily had for delivery by rail, if the farmer lives too far away from the factory to haul the beets by wagon.

The expense of growing an acre of beets is supposed by many farmers to be very heavy, on account of the large amount of hand labor that beets ordinarily require, and this keeps them from taking up sugar-beet culture.

The Point of View.

To the Editor "Farmer's Advocate":

I think that your opinion, as expressed in May 16th, re seed distribution, only represents one viewpoint. I shall endeavor to change your views, as I have a practical acquaintance with both sides. To the large farmer on the prairie in the older West, whose pioneer work is over, who to-day has a well equipped farm, it may seem to him the best way to buy five bushels of a promising variety of grain; he then will be enabled to have at the least one stack of grain for the thrasher, and he gets that at the least cost. As a rule he employs expensive labor and works himself, and is keyed up to his full capacity during the growing season; so he considers it is cheaper to buy it, and the experimental farms would benefit, and what is good for him is good for the rest. But hold on right there, let us reason awhile and I will convince you of your error. The farmers in the older West make a natural mistake in thinking Manitoba is settled like their own particular district. Within the last six or seven years a great territory has been opened up and is now rapidly being developed, all within Manitoba's boundaries. It is mostly a bush country, and to those who have lived all their lives on the prairie it is a revelation. The young man who goes into that part of Manitoba may be a first-class settler, but have mighty little cash. If he applies for a promising variety of grain, I think he is entitled to it. I do not believe (because a few pounds are abused) that an intelligent farmer who applies for a sample will abuse it. When a man considers that thousands of dollars, foresight and skill have all been expended to produce some promising variety, all directly for his material welfare, I should say the majority of farmers would appreciate it. In regard to the improvement of seed that comes from these samples, I make the assertion that far more first-class seed is sold amongst neighboring farmers than is generally known, in which the parent stock was a three-pound sample from Ottawa. In my own particular district the most of the barley grown is Mensury, all first produced from a sample in 1901. The only mistake I can see about the seed distribution is sending it where it has not been asked for. In the first place, if they know the man and a report has been rendered as to how the grain did, they are safe in sending it to such a man; he, in his turn, brings the Experimental Farm pretty close to his neighbor's door. For my own part, I would much rather purchase a five-bushel lot of some new grain that I want to try direct from the farm, if I could not obtain it from a neighbor, but I would be very unwilling to see the new settler deprived of a free sample. He is willing to put up his time and take some trouble so as to get a good strain of seed; he is entitled to as much consideration as the older-established man who has got the cash.

Valley River,

L. BROWN.

Spring Conditions in B. C.

Mr. Thomas Cunningham, the Provincial Fruit Inspector, has just returned from an inspection trip along the Fraser River Valley, and has some interesting things to say about that fertile region. According to his observations, extending over a number of years, never before has he seen the Fraser Valley look better than it does this year. The grass is most luxuriant, and the cattle are in the pink of condition, giving evidence of improved care and feeding. The heavy shipments of cream and milk from different points show that dairying is in a prosperous condition.

Nicomien Island, which was almost abandoned a few years ago, is now well occupied with prosperous dairy farmers, who are receiving very satisfactory returns in cash every month of the year. This is a great improvement on the old practice of selling hay once a year by poor fellows who had been buying their supplies on credit, and seldom realized enough by their annual sales of hay to square their accounts. The dairy business has changed all this. Farmers have now ready cash to put down for any supplies they may need, and their land, instead of being exhausted by continual cropping, is being enriched by their well-fed cattle. This is true of every section of the Fraser Valley where farmers have engaged in dairying, for which the land and climatic conditions are more favorable than in any other part of Canada.

The Agassiz Valley, which has long been neglected, is now sharing the general prosperity, and farms that have been held at prices far below their intrinsic value are being bought up. The area devoted to hop-growing is also being increased, but after all it is the dairyman who is really building up the country on safe lines.

The City of Vancouver is growing so rapidly that it will require every acre of land in the Fraser Valley to keep the local market supplied with milk and butter, and the by-products of the farm, such as bacon and hams. All these are cash articles, which are necessary to life, so that the Fraser Valley farmer has a safe and sure business for all time.

In this connection, it is interesting to note that a bargain has just been concluded between the Maple Ridge Creamery Association and the Valley Dairy Company in Vancouver, whereby the former has agreed to hand over all its produce at market prices. The creamery will send twice a day to Vancouver 1,000 gallons of milk and 100 gallons of cream. The cold-storage creamery of the Association is kept at Port Hammond, which, being situated both on the C. P. R. and the Fraser River, is a most convenient point for collecting. The Valley Dairy Company also keeps a small steamer of its own on the Fraser River, which will move about from point to point and gather the milk from the farmers at the most convenient hours.

From present appearances no harm has been done the fruit crops in the Valley by pests, and as the season has been unusually dry pollination has been perfect this year. A bumper crop of fruit may be expected, and unless all signs fail, we shall not suffer as much as usual from fungoid disease.

It is not often we need rain in May, as we generally have too much; but the spring has been very dry, and at present a heavy shower would do a great deal of good. J. M. May 18th, 1905.

Windmills on the Farm.

The farmers of this country are rapidly awakening to the fact that cheap power and improved machinery are one of the conditions of success on the farm, as in nearly every other industry.

And why not? Farming is the greatest industry of this country (let the farmer fail and we all fail), and ought to be conducted on the most improved and up-to-date methods. The more cheaply the farmer can do his work the better he can compete with wheat-growers in other countries, and the more money he will make for himself. Why should a farmer haul his grain several miles back and forth to get it crushed, when with a moderate outlay he can do it in his own granary, besides securing the convenience of having a power at home to run any machine he may wish to attach to it?

That the windmill is the cheapest power no one will deny. The people of Holland were about the first to harness the wind and make it do the work that others were doing by hand, and the first windmill we know about was made with four long arms, or sails, and many of them are still to be seen doing their work in England and other countries.

The windmill as a power has been developed to its present state of efficiency by the untiring energy and inventive genius of the American people. They have made, and are making to-day, more windmills and better windmills for less money than any other people in the world, and to them justly belongs the credit of being the best windmill men on earth. The question may be properly asked, what should a windmill do, and what size should one buy? If it is for pumping water only, a six, eight or ten foot mill is sufficient, the size

to use varying according to the depth of the well and the amount of water to be pumped. An eight-foot mill, with a thirty or forty foot steel tower, is a very satisfactory pumping outfit for ordinary purposes.

For power purposes sufficient to do a farmer's ordinary work, such as sawing wood, running a mast grinder, cutting straw, etc., a twelve or thirteen foot geared mill will do the work. If, however, a man wishes to run an eight or ten inch floor grinder, and do custom grinding for the whole district, then he had better buy a fourteen-foot mill, but do not expect a windmill to do impossibilities and take care of itself into the bargain. The mistake so many people make is thinking a twelve-foot mill will do as much work as a twenty horse-power threshing engine. For example, they will ask it to run a ten and sometimes a twelve inch floor grinder, and that when there is very little wind; then they oil it when they think about it, which is not very often, as they have heard some fad about graphite and bronze bearings running a lifetime without oil, or some other nonsense which does not work out in practice, and are only talking points, and so they think any old time will do to oil the mill, the result being they often come to grief, the mill breaking down—through their neglect—but they never blame themselves, it is always the mill that is no good, although their neighbor has one just like it doing good work, the only difference being one man looked after his, and the other did not. Some will say this is not true, but I have seen more pumps and windmills spoiled for the want of a little oil and attention than I have seen worn out. In conclusion, let me say to the reader: If you want a good and cheap power on your farm, to do your own work, then a windmill is what you want; but please keep in mind the following points:

1. Buy from a good, reliable man, whose guarantee is worth something.
2. Buy, if possible, from general agent.
3. Buy the best, not always the cheapest.
4. Don't expect it to do more than the maker intended it to do.
5. In making your selection, buy one with good heavy castings and strong wheel, with long anti-friction babbitt metal bearings; they are the best (ninety-five per cent. of the world's best machinery is run on such bearings).
6. Take good care of it. Oil it often; tighten up all nuts occasionally; keep the bolts tight and your machinery in good condition, and you will prove by experience that a windmill is the cheapest, simplest and most useful piece of machinery on the farm.

Brandon. H. CATER.

Protection Against Lightning.

Already stock casualties through the agency of lightning have been reported from different parts of Canada, and it behooves the provident farmer to take such steps as he may to avert calamities from this cause. It will be noticed that, during a thunderstorm cattle usually bunch themselves about trees or in a corner of the field close to the fence. In the latter case, if the fence be wire, the chances are that, if any part of the fence be struck, a number of the cattle are likely to be killed, i. e., unless the wire be properly grounded. The reason of this is that, while wire is a very good conductor of electricity, the wooden posts are very poor conductors. The current thus runs along the wires seeking some means of getting into the ground; the bodies of the cattle being better conductors than the fence posts, afford this outlet, and the damage is done. In order to avert this condition, take pieces of wire, connect each one closely with the wires in the fence, then push the free end down three to eight feet in the ground—far enough to be sure that it reaches moist earth. The connection may be made either by wrapping the wire round each strand, or by stapling it to the fence post in such a way that each strand of the fence will be brought in close connection with it. In inserting the wire in the ground, simply dig down, say a foot, fill this with water, then run a rod down as far as possible. Pull the rod up and fill this hole with water, and proceed in the same way until a depth sufficient for the wire has been reached. Wires need only be inserted say at every fifth or sixth post, and if carefully done, this simple precaution will transform a dangerous wire fence into an excellent lightning-rod system, which will prove an effectual safeguard to all animals in contact with the fence.—[Wallace Farmer.

Opinions re Subsoil Packer Requested.

The following question is one that is often asked himself by the man considering the investment. Let us hear from our readers their experience with this implement:

"Have any of your readers had any experience in using the subsoil packers which are on the market; if so I would like to hear their experience and the benefit derived, if any; also when to use it? Would it be advisable to use it after the grain is up, or not? As the spring is a dry one, would it pay to buy a subsoil packer, counting their cost, which is \$120?"

Oxbow. SUBSCRIBER."

Crops and Climate.

The following observations upon plant adaptation are from a bulletin by Prof. A. M. Ten Eyck, of the Kansas Experiment Station:

Three principal factors largely determine the value of a variety of any cultivated crop, namely, yield, quality, and adaptation, and the last named is really the deciding factor which determines whether a variety may be successfully grown in any locality. In no two countries, perhaps in no two sections of the same country or state, are the plants subject to exactly the same conditions of soil and climate. One section may have a slightly different soil, a little more dry weather, and the plants of this section vary to adapt themselves to these conditions. If the plant is removed from its native habitat and planted in a different part of the world or country, in a different soil, surrounded by different conditions to those which it had been accustomed to, it is placed at a disadvantage, it is exposed to a new environment to which it is not suited. Thus we can understand why a good variety of fruit or grain does not always give so good results in all places, and we should expect a variety of plants originating from the plants of a certain region to be best adapted for growing in that region. Or such plants may be adapted for growing in any region having similar conditions of soil and climate. We find a demonstration of this principle in the fact that wheat and other grains brought from the steppes of Russia and Turkey are well adapted for growing in the western plains region of America, which has a climate and soil very similar to that of the countries named. The Turkey Red wheat, for instance, has largely displaced all other varieties of winter wheat grown in the American West, because of its greater hardiness and productiveness, and yet some of the varieties which it has succeeded had been grown in the West for many years, and seemed to be fairly well adapted to Western climatic and soil conditions. This superior hardiness and adaptation which the Russian and Turkey varieties of grain appear to have in our Western country may be largely credited to the centuries of training which these varieties have had in an environment almost identical with that of similar latitudes in the West, while the varieties which the Russian grains succeeded, as a rule, have been those which have been gradually moved from the east farther west, and although many of these varieties have gradually become more or less hardy and fairly well adapted for growing in our Western climate, yet in the comparatively short period during which they have been grown under Western conditions, apparently they have not become so hardy and well adapted to these conditions as the Russian and Turkey varieties.

We have growing throughout the West a large number of grasses and native grains which are fully hardy and perfectly adapted to the conditions under which they grow, and we have neglected to a large extent to develop these native grasses and grains. One of the urgent needs of Western agriculture to-day is for domestic grasses, which can be successfully and profitably grown for pasture and meadow, and in rotation with other crops. Previous to the introduction of Bromus inermis there was practically no domestic grass which could be grown successfully throughout the central and western portion of Kansas, and this grass is not fully adapted, especially for the extreme western and southern parts of the state; also, in some soils it does not seem to thrive well. We ought to develop domestic grasses from our grasses. These wild grasses are just as capable of producing valuable cultivated varieties as were the wild prototypes of many of the valuable domestic grains and grasses which we are growing to-day. This work is being undertaken by the botanical department of this experiment station, and although little has been accomplished thus far, yet the work is of the greatest importance, and it is to be hoped that in time valuable varieties of cultivated native grasses will be developed.

Probably more has been done along the line of developing the wild fruits of America than with any other class of native plants, and yet improvement in this line has been slow and costly. In speaking on this subject, Prof. N. E. Hansen, of South Dakota, the great fruit breeder of the Northwest, says: "It has cost considerably over one hundred million dollars to determine that the apples commonly grown in the Eastern and Southern States, which came originally from Western Europe, cannot be successfully grown over a large portion of the northern Mississippi valley, and many thousand dollars are being spent annually in every state of this vast region in order to demonstrate this fact still farther." Professor Hansen's plan is to develop the native fruits, either by selection or by crossing the best native varieties with the cultivated varieties, the aim being to combine the hardiness of the wild fruits with the size and quality of the cultivated varieties.

As a noted worker and authority, I quote some of the thoughts and facts which Professor Hansen has expressed in his writings and in the bulletins of the South Dakota Experiment Station, as follows: "The wild fruits are already superior in hardiness, as summers and winters of many centuries have acclimated them and weeded out individuals of insufficient vigor. * * * We must create a new pomology. About all the varieties familiar to Eastern fruit-growers are tender and worthless on the open prairies of a large part of the Dakotas, Minnesota, Northern Iowa, and the Canadian Northwest. * * * Plants from a comparatively mild, moist coast climate are not adapted to a dry continental climate. Man readily adapts himself to such environments and finds the climate salubrious, but plants have no power to provide against such changes.

Many plants cannot adapt themselves to a change in location, nor to cultivation in open exposure. Some hardy, native plants which flourish in sheltered places or on moist land fail on dry upland. Some plants are strong and aggressive, while others are retiring and dependent. It is now a well-established fact that a species of plant extending over a wide geographical range varies greatly in ability to resist cold. Southern box elders winter-kill in Manitoba; box elders from Virginia winter-kill in Iowa; yet in each case the local native box elder is perfectly hardy. Dakota planters should make sure that their ash, box elder, elm, and other native trees to the State, are not grown from seed picked too far south. Conversely, it is not best for Southern planters to get seed from too far north, because the term "hardiness" implies ability to resist heat as well as cold. This variation in hardiness points to a slow process of acclimation by nature. De Candolle writes in 'The Origin of Cultivated Plants': 'The northern limits of wild species have not changed within historic times, although the seeds are carried frequently and continually to the north of each limit. Periods of more than four or five thousand years, or changes of form and duration, are needed apparently to produce a modification in a plant which will allow it to support a greater degree of cold.' We should take full advantage of this great work done for us by nature in acclimating plants, and cultivate our local form of the native species instead of the form adapted in the course of thousands of years to a mild, moist climate. This fundamental thought—to work with and not against nature in the adapting of plants to our prairie climate—underlies all efforts in the improvement of plants."

Hardiness requires fixed characters in the plant, and this is exhibited by wild plants, which, being perfectly adapted to certain environments, change very slightly, if at all, even during the lapse of centuries. These wild plants when grown under cultivation are surrounded by new conditions, which cause them to vary in their characters, and it is true of our cultivated varieties that under the various conditions in which they are grown there is much greater tendency to variation in the characters of the plants than is found in the wild plants of the same species. From the experiments of breeders, and from general experience, it would appear that changes in quality, productiveness, and other minor characters of plants, occur much more readily than changes which tend to produce hardiness or better adaptation to new or unsuitable environments. The changes by which plants become more hardy and more resistant to unfavorable conditions doubtless take place very slowly, yet with annual crops, especially those which are produced from seed, changes by which the plant becomes better adapted to the conditions in which it grows evidently take place much more rapidly than with wild plants. Not only do we have the general experience in Western agriculture to prove this proposition, but the experiments which have been carried on in different states in changing seed and the testing of varieties, prove not only that seed grown in different localities is better adapted for growing under certain conditions than other seed, but also that varieties become gradually more productive and more vigorous and hardy as they are grown in a certain climate and soil.

As reported in Bulletin No. 39, of the North Dakota Experiment Station, it was found in exchanging seed wheat with the Minnesota Experiment Station that when the new seed was simply the old variety the home-grown seed proved to be superior in yield. As an average of many tests, the home-grown seed yielded 3.4 bushels more wheat per acre than the seed of the same varieties brought directly from Minnesota. However, it was observed that when several varieties of Professor Hays' selected wheats were introduced and grown at the North Dakota Experiment Station, these varieties gave larger yields than the best home-grown seed of the old varieties. Again, when the selected wheats had been grown a few years at the Dakota Station, and new seed of the same varieties was again introduced from the Minnesota Station, the older seed of the improved varieties proved to be the better yielders by several bushels per acre, indicating that in the interval of two or three years the selected wheats had become better adapted for growing at the North Dakota Station than the same variety of seed from the original source.

Many farmers have made it a practice to change seed of wheat and other crops occasionally, claiming that when they grow the same seed for a longer period it runs out and becomes less hardy and productive than it was when first introduced. If a crop is not adapted for growing in a certain region, doubtless there is an advantage in getting new seed occasionally from the sources where the crop grows to perfection, but if a crop is adapted to a certain climate and soil, or has become adapted by a long period of planting and selection, nothing would be gained and much would be lost by introducing new seed of the same variety from the original source. If a better variety or a better strain of the same variety was obtained there might be some advantage in changing seed, as was shown by the experiments at the North Dakota Experiment Station, when Professor Hays' selected wheat proved superior to the best home-grown seed of the old varieties.

His Satanic Majesty took a hand in the felt business at a very early stage of the hump's race, and if all accounts regarding packing on one hand and selling on the other be true, he is still doing business at the old stand.

Effect of Soaking Turnip Seed in Paraffin and Turpentine.

In some experiments, conducted last year in Aberdeenshire and the North of Scotland, to discover a method of preventing attacks of the turnip fly, the following methods were tried: (1) The seed was steeped in paraffin and dried before sowing; (2) the seed was steeped in turpentine and then dried; (3) sand or sawdust dampened with paraffin was strewn along the surface of the drills before the turnips were quite through the ground; (4) the surface of the drill was sprayed with paraffin when the turnips were coming through the ground. It so happened that there was no fly in that section in 1904, but some incidental results of the steeping are interesting.

In several cases steeping the seed in paraffin or turpentine produced an earlier and more vigorous growth, which lasted several weeks. To settle the point as to how long the seed could be left in the paraffin or turpentine without injury to its vitality, seeds were germinated after being in the liquid varying periods. After submerging the seed in both liquids for three weeks, no change could be found in the vitality or rapidity of germination, as compared with unsteeped seed. On one farm seeds were steeped for periods varying from thirty minutes to three hours, and the longest period of steeping produced the earliest and most vigorous growth. Steeping in water for the same length of time did not produce the same effect. One or two farms spreading on the drills sand or sawdust steeped in paraffin gave remarkable results: the young turnips being bright green, strong and numerous, while the untreated drills alongside showed a few weak plants, paler in color and dotted with light brown spots. Observation showed that the spots were caused by a little beetle, which attacks the cotyledons before they are above ground and just as they emerge from the seed coats. The spots, it was claimed, were not due to a fly or frost, as is sometimes stated. The method of spreading sawdust is, of course, not practicable. It was adopted to ascertain the effect of a strong-smelling material. In only one of the fifteen trials did the farmer report that steeping spoiled the braird. Spraying the surface of the drill seemed to produce no effect.

Dairying.

The breed and individuality of the cow largely determines the quality of her product and the quantity of production from a unit of food. Neither heavy feeding nor skill in compounding rations can be made the means of causing her to overstep her constitutional limitations.—[Jordan.]

It must always be remembered that the true value of a dairy cow does not lie in having a nice square vessel and well-set teats (though these add to her general appearance), but in the amount of milk and butter she is individually capable of producing in a year, and the only way to ascertain this is by means of the spring balance and butter-fat tester.—[Robb.]

With dairy cows the taint of non-productivity in the lineage is a most important one to guard against, and until breeders and farmers come to keep and depend upon reliable records of individual production, instead of conformation or pedigrees showing descent from some great ancestor—many individuals that may have had more to do in deteriorating the offspring than that great ancestor had in bringing it out—until that time comes the cow that does not pay will be always with us.—[D. B. Foster.]

Since it costs about \$12.50 per cow to pay for the work connected with milking, and from \$7 to \$8 to raise the calf on skim milk, a cow must produce, in order to be profitable, at least \$20 worth of butter-fat before it will pay to milk her, assuming that the skim milk pays for hauling. With four per cent. milk and 15 cents for butter-fat, this would mean 3,333 pounds of milk per annum; with 18-cent. butter-fat it would be 2,777 pounds of milk per annum, and with 20-cent butter-fat it would be 2,500 pounds of milk. This is assuming that a dairy cow would eat no more when giving milk than she would when not. Doubtless she would eat some more, and this would have to be added to the above cost.—[Kansas Bulletin, 125.]

The texture of butter depends upon the state of the granular condition of the fats. When the butter is first formed in the churn particles its appearance in the shape of minute granular granules. In the subsequent process of manufacture these granules never completely lose their individuality, and constitute the special character of the

butter. The more distinctively the individuality of these granules is marked in the mass of butter, the better the texture. The texture of the butter is shown by an appearance like broken cast iron when a mass of butter is broken in two transversely, and when a metal is passed through the butter, as a knife or trier, if the butter be of the best texture, no particles of fat adhere to it. The texture of the butter is deteriorated if the particles of butter are churned in too large masses, and in the process of working the individual particles are made to move upon one another at too high a temperature. The mere warming of the butter to a point approaching the melting point destroys the grain upon subsequent cooling, even though the mass of butter may have been undisturbed.—[Wing.]

If the cream is thoroughly and uniformly ripened, the separation will be more uniform and the churning more complete than when creams of different degrees of ripeness are churned together, but under various conditions, and from time to time, the completeness of separation varies with the size of the granules of butter; that is to say, if the granules have reached a certain size, it does not always follow that the fat has been removed from the buttermilk to the same degree, so that the size of granules of butter is not a certain indication of the completeness of churning. When the churning process is complete the buttermilk takes on a thin, bluish, watery appearance, quite distinct from the thicker creamy appearance of the unchurned cream, and the churning should be continued until this condition of the buttermilk is reached, even though the granules are increased in size beyond the point favorable to their best separation from the buttermilk. The higher the temperature at which the cream is churned, the greater the percentage of fat left in the buttermilk and the more casein will be incorporated with the butter.—[Wing.]

Keeping Flies Out of the Dairy.

Discussing this question in the Produce Review, Mr. W. Becker, of Illinois, says:

"Have everything clean and sweet-smelling inside, and follow same rule for outside surroundings. Have screens for every door and window, and a good spring for each door, so they cannot stay open. Pull down shades when cleaned up to darken room, then open door. With a long steam hose and steam I find I can do good work to drive what few come in out again. Next comes the weigh room, leading into the creamery (it should be screened in with good door and spring). Have every room dark; take steam through the screens. The swarm of flies in the weigh room will find the open outside door mighty quick. Then close outside weigh room door or screen. I find where there are many shade trees around creamery it makes a cooler creamery to work in, and the fly nuisance a great deal less than in a creamery with no trees and shade. In boiler room I don't have many flies. I have tanglefoot fly-paper placed where it does the most and best work. In fly time I keep shades pulled down and rooms dark in afternoon. It keeps heat and flies out. When night comes I raise all shades again. When I find swarms hanging around the doors outside, I feed them all the poison they want in the afternoon.

A Costly Cow.

The Colorado State Supreme Court has affirmed the decision of four lower courts in the famous Stevens-Smith cow case, which was begun fifteen years ago, and has cost \$2,500 in attorney's fees and court costs. The value of the cow was \$30, and she has been dead twelve years. Stevens placed the cow in a pasture fifteen years ago. While he was in California the owner of the pasture sold it, with his herd, including Stevens' cow, to R. M. Smith. When Stevens returned he demanded the cow, offering to pay for her pasturage. Smith refused to give her up, and the long legal fight began. Stevens says he will carry the case to the Federal Supreme Court, if possible.

Grading Cream.

I find, upon conducting a few experiments along the line of using an alkaline test for grading cream and milk, that good results may be had by making a solution from Farrington's alkaline tablets, if the solution is used fresh each day. Full explanations as to its preparation and use may be had by writing any of the creamery supply houses. G. P. GROUT.

We Can Sell that Farm for You.

A SMALL ADVERTISEMENT IN OUR "WANT AND FOR SALE" COLUMN WILL DO THE TRICK. ADDRESS: THE FARMER'S ADVOCATE AND HOME MAGAZINE, WINNIPEG, MAN.

The Packing of Butter.

The important part that proper packing plays in the marketing of butter can hardly be exaggerated. This is a point to which the judges in the Department's

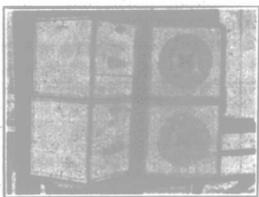
Surprise Butter Competitions have frequently called attention; indeed, defective packing was one of the gravest faults they had to complain of in the parcels of butter submitted to them. Experience, too, has proved that in the present condition of English markets the packing of butter has a considerable influence on the price received. In this connection it may be noted that different markets require different methods of packing. Inquiry as to package desired should, therefore, be made before arranging for the despatch of butter.



The two kiels and the keg on the left have notched or locked hoops. Those on the right have twigged hoops.

If butter is to be properly packed it is essential that a clean, dry, well-ventilated and well-lighted store be available for the materials used in the various packages. Damp and dirty stores frequently cause mouldy growths on the timber and parchment, and much injury may thus be done to the butter packed in such materials.

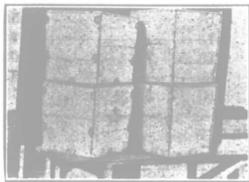
The wood used for butter packages should be thoroughly seasoned and free from odor. For this reason it is recommended that all packages should be made up and well aired some time before their use. If, after all precaution has been taken, the wood has a strong odor, the bad effects may be lessened by heating the package thoroughly, and painting the interior with a thin coating of melted paraffin wax, using a soft brush for the purpose.



On the left are two Canadian boxes, dovetailed at the corners. The lids are held by four bent nails, which turn into the grooves shown. They are thus easily taken off or put on. On the right are two New Zealand boxes, with the sides in one piece.

Each package should contain as nearly as possible the quantity required to fill it, as considerable inconvenience and frequent loss are occasioned by the use of insufficiently filled packages. A filled package travels better than one with room to spare. Kiels should weigh not less than 14 lbs. each, and kegs not less than 7 lbs. The grooves for the lid and bottom should be well sunk, and the ends of the staves around the lid suitably bevelled off. The heads and bottoms should be made of strong, well-seasoned timber.

There are two methods of finishing the hoops: (1) twiggling; (2) notching or locking. The "notched" hoops are preferred because of their neater appearance.



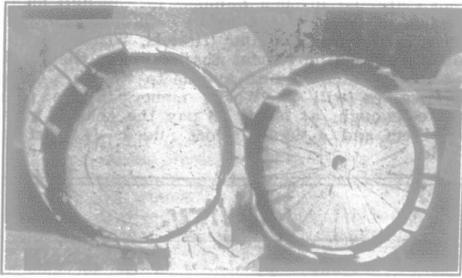
On the left are two boxes whose sides are made of two pieces. The joints are marked to show the "break." On the right are two boxes with two sides made up of three pieces, with joints marked to show the "break." Distance between the joints is from 3 1/2 to 4 inches.

The hoops used for the "notching" method must have been previously "colled" or "curled"; straight materials for these hoops are unsuitable. For kiels the 6-ft. coiled half hoops or half hoops from rods of three years' growth, and for kegs 5-ft. coiled half hoops or half hoops from rods of two years' growth are recommended. The packages are quarter bound, and twelve hoops are recommended. Very strong "quarter" hoops are unsuitable, being, as a rule, badly "shaped," and they do not grip the staves securely.

The properly-made notched kiel or keg will stand a long journey and be suitable for re-coopering if necessary in the merchant's stores, and will preserve its neat and clean appearance. Short nails may be used to secure the top and bottom hoops in position. None are needed in the other hoops, provided they are properly

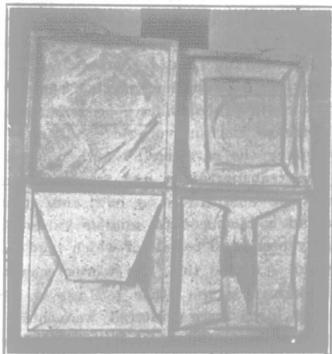
coopered on. Long nails tear the parchment and cause rust spots on the butter.

Timber for these should, as far as possible, be free from loose knots and resin; and the pieces tongued and grooved, planed both sides, five-eighths inch scantling for 56 lbs., and 3/4-inch for 28 lb. boxes. The boards



Two kiels turned so as to show the finish of the top. The one on the left is slovenly; that on the right is neatly done.

should be accurately cut, in order that the box when made shall be close in all joints, and without any portions of projecting wood at the angles, and as nearly water-tight as possible. Timber cut for making boxes at creameries should be supplied of specified scantling, and if the sides consist of more than one piece, it should be of such widths that when the box is made there shall be alternation in the sides of wide and nar-



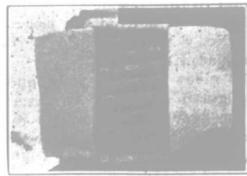
Four pyramids turned over to show finish of tops. Lower one on the left shows the proper finish.

row boards, thus preventing the weakening of the box by having the joints of the sides too near each other at the angles when the box is nailed. Inattention to this principle renders probable a liability of the upper portion of boxes being parted from the lower through the rough handling they receive in transit.

The most suitable nails for the sides of the 56-lb. pyramid box are cement-coated steel wire nails, 2 1/4-inch by 11 gauge. Eight nails at least should be used in each side, and of these at least two in the break.

For the bottom and top, 1 1/2 inch by 12 gauge nails are suitable, six in the ends, and in the case of the bottom two additional nails into each side. Boxes dovetailed at sides and without nails are recommended where suitable timber can be obtained at a reasonable cost.

Clips and handles are not necessary for the present system of carrying butter when the boxes are made of sufficient strength and stability. The box should be wrapped in a canvas cover in order to protect it from dirt in transit. A few buyers, however, have expressed a preference for uncovered boxes, giving as reasons: (1) That the carriers use the covers as a sling to throw the boxes in place of lifting them; (2) that when no covers are used the damaged boxes in a consignment are more readily seen and claims can be made at once. Covers, if used, should accordingly be wrapped tightly and closely onto the box, and so secured that the carriers cannot use

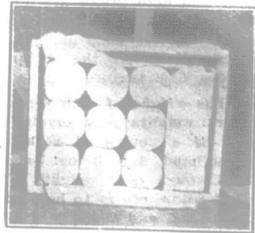


A very badly packed pyramid box of butter turned out, showing gaps and holes.

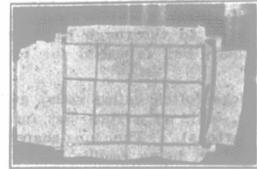
them as a sling. In order to reduce the liability of taint from the wood of packages, it is advisable to use a lining of strong, heavy parchment paper. This should be made from rags only, and should be pure white in color—all tints are objectionable; it should also be free from filling or weighting material. The texture should be even, and bright shining specks (due to holes in the paper) should not be visible when a sheet is held between the eyes and a moderate light. A suitable parchment paper should not show fiber on a torn edge. When wet it should be quite as tough as when dry, and should stretch on pulling. For kiels a parchment paper is required weighing not less than 35/40 lbs. per ream of 480 sheets, each measuring 30x20 inches; the same weight, but cut to 20x26 inches is necessary for 56 lb. pyramids.

The kiel, keg, or box, should be thoroughly scalded over a steam jet, and afterwards scrubbed on the inside with clean cold salt and water. The parchment cut to a suitable size should be steeped in scalding brine the night before it is to be used, and allowed to remain in the brine till next morning, when it will be cold and ready for use. The package should be carefully lined with the damp parchment paper, avoiding creases and bare spaces.

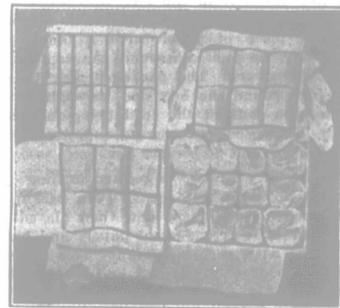
The quantity of butter to be put into the packages should be weighed out accurately, allowing 1/2 lb. extra for a 56-lb. package, and 1 lb. for a 112-lb. package. Small quantities only should be put in at a time, and should be well pressed against the sides and



Box of 12 two-pound rolls. Rolls are fairly well shaped, but the box is far too large.

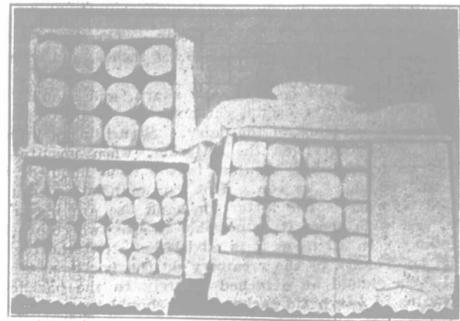


Box of 12 two-pound rolls. Butter is made up in brick shape, and owing to the box being too large the butter has shaken together.



Top box on left contains 24 one-pound rolls; bottom box contains 4 lb. lumps wrapped in muslin. On the right the upper basket contains 8 lb. lumps wrapped in muslin, and the lower box 8 lb. lumps wrapped in muslin.

into the corners by a heavy packer. Great care should be taken against creasing the parchment. The butter,



Upper box on left contains 12 two-pound rolls. Lower on left 1 lb. rolls on end—this box a little large. On right is a box of prints. Note the perforated paper edging which gives a neat appearance to these packages.

when turned out on the shop counter, should be perfectly solid and smooth, without holes or crease marks,

and showing clean angles. The top should be finished off smooth and flat, and carefully covered with a neatly-fitting piece of parchment paper.

A considerable demand exists for butter made up in prints, rolls, bricks, etc., weighing $\frac{1}{2}$ lb., 1 lb., or 2 lbs., and high prices are obtained for butter thus made up. The retailer incurs no loss through cutting up, and saves the time and labor of having to do so. It is essential that the butter for these packages should have a firm texture and be free from loose moisture.

The weight of each piece should just turn the scale. Short weights may involve your customer in trouble, and be a source of vexatious claims; while, on the other hand, 4 to 6 lbs. per cwt. may be lost in making up through over weight. The best plan is to decide what allowance is to be made—say, 1 lb. per cwt. for 1 lb. bricks, and 2 lbs. per cwt. for $\frac{1}{2}$ lb. bricks. Then weigh out sufficient butter to make a definite number of the prints, etc., and check the weighing occasionally. With weak-textured butters, losses of 6 to 8 lbs. per cwt. may easily occur through carelessness in cutting up. If large quantities have to be made up a moulding machine, such as Bradford's for bricks, and Lister's for rolls, is useful for shaping. A piece of wet muslin stretched over the bench gives the best surface to shape on. The packages for butter in smaller lots, such as rolls, bricks, prints, etc., are, as a rule, made of "smooth sawn timber," and are not planed.

Prints are usually packed in boxes containing 12 or 24 of 1 lb. or $\frac{1}{2}$ lb.; each print should be neatly moulded and impressed with a distinctive sharply outlined device, and wrapped in parchment. The boxes should have a separate division, lined with grease-proof paper, for each print. This method of packing is not suitable for a cross-channel trade, owing to the rough handling the packages receive in transit, but is useful for the Irish trade.

One pound and $\frac{1}{2}$ lb. bricks (often called rolls) are wrapped in parchment paper, and, as a rule, put into folding cardboard boxes (cartons). The long-shaped brick is preferred by the retailer, being readily divided into halves or quarters. The cartons are packed carefully on end in the box, which should hold the exact number without leaving room for shaking in transit. The parchment paper should be of the same quality as that for Kiels, but of a lighter weight—25/30 lbs. to the ream of 480 sheets, 20 inches by 30 inches. It can be purchased cut in squares of exact size for packing, and with any suitable device printed on it. The cartons may be sealed by a gummed slip, stating whether the butter is "Fresh," "Mild," or "Salt," and with the registered trade-mark of the creamery on it.

When the bricks are wrapped in parchment paper only they are laid flat in the box, and with the printed side up. The box should be lined with a grease-proof paper, and a piece of paper with a fancy perforated lace edging may be pasted around the top edges of the box, and folded over. The packages may be sealed by passing a cord round the box and through holes in the side and lid, the ends of the cord being fastened by a lead seal. The size of boxes recommended are those that hold 54, 24 and 12 bricks per box.

Butter in $\frac{1}{2}$ -lb. "Rolls" is packed in long cylindrical rolls and put up in 24 $\frac{1}{2}$ -lb. or 12 1-lb. packages. Each roll is wrapped in parchment and then placed crosswise in a box lined with grease-proof paper, and having four pieces of paper with perforated fancy lace edging pasted on to the inside edge of the box and folded over.

The dimensions of the boxes are: 24 $\frac{1}{2}$ -lb. size, 9 $\frac{1}{2}$ inches by 6 $\frac{1}{2}$ inches by 7 $\frac{1}{2}$ inches; 12 1-lb. size, 9 $\frac{1}{2}$ inches by 6 $\frac{1}{2}$ inches by 3 $\frac{1}{2}$ inches; scantling, $\frac{1}{2}$ inch.

Two-pound "Rolls" are usually packed for the London market one dozen in a box. No wrapping material of any kind should be placed round a roll. The box is first lined with a good grease-proof paper, with lace edging to fold over, then a layer of good muslin. The rolls, which should be made narrow at each end, or torpedo shape, and $\frac{1}{2}$ -inch to $\frac{3}{4}$ -inch longer than the depth of the box, are packed on end, the muslin folded over and a board pressed on the ends of the rolls till it meets the sides of the box; the grease-proof paper is then folded over and the lid nailed on. By making the rolls slightly longer than the box it is found that they retain their shape and travel better. The dimensions of a box are: 12 11-16 x 9 11-16 x 7 inches, and scantling 5-16 inches.

Branding should be clear and sharp, and should indicate the source of origin, character of the butter and registered trade-mark of the dairy. Stencilling a brand is not satisfactory, as the lettering, when unsuitable ink is used, or when the box is too soon handled, is apt to "smudge" or run. Hot iron or printing brands should be used. The latter for hand use are inexpensive, and with these it is possible to use two colors in branding. In all cases it is advisable to put the registered trade-mark of the creamery on the package.

Labels should be attached securely to the package, by means of $\frac{1}{4}$ -inch tin tacks, which should be no longer, in order that they may not pass through the lid and injure the contents.

The whole aim of the packer should be to produce a filled package which, by its neatness, will attract the attention of buyers to the contents, and assist in building up a reputation for the brand.—[A. Poole Wilson, in Report Dept. Agriculture and Technical Instruction, Ireland.]

Two good things for the cow stable: Sun-light and whitewash.

The Dairy Calf Crop.

That dairy-bred calves are fit only for vealing purposes is a recognized fact. Once feeders could be found with sufficient temerity to develop them into beef, but that beef was so unpopular with butchers that the practice of maturing dairy-bred calves has all been abandoned. Calves have been marketed in such numbers at Chicago as to furnish an index of the rapid development of the dairy industry in Indiana, Illinois, Wisconsin and Iowa. It is a movement that suggests the breeding of beef calves as an avenue to wealth. Good beef calves will be worth money in the near future—enough, at least, to pay the cost of raising them and a decent profit added.—[Live-stock World.]

Poultry.

Best "Paying" Hens.

It is a well-known fact, or should be, that all hens do not "pay" alike. Some are among the most profitable assets a farm can have, so far as comparative difference between cost and production goes; others eat their heads off. With a view to discovering just what species is of most value as egg-producers, tests have been undertaken at various experiment stations. The results of those made at the Kansas Station are given below, and may be of value to those who wish to ascertain what species is likely to give best results. In view of the recent sharp discussion in the "Farmer's Advocate" of the relative merits of different breeds, this article must be of timely interest. We quote from the bulletin, which covers the first half of last year:

"The fowls in the contest made an excellent egg-laying record, and the results compare favorably with those of previous authentic egg-laying contests. Better performances could probably have been made had it not been for some of the unfavorable conditions which always accompany the carrying on of a contest; as, for instance, the transportation and frequent handling of the fowls, their adaptation to new and strange surroundings and confinement to smaller yards than they had probably been used to, all of which tend to diminish the egg yield. Beside this, the winter was the most severe ever known in the State. However, the houses in which the birds were wintered were built to meet these conditions, but it would have provided more comfortable quarters if a larger number of birds for each pen had been furnished.

"The following is the list of competing birds, with notes on their performance:

"First pen, Rose-comb White Leghorns.—These were fairly well matured pullets. They seemed rather out of condition at the beginning of the contest, but recovered and gave excellent results through the winter. They were not affected by the low temperature as readily as the Single-comb White Leghorns. No. 3 of this pen became sick in the early part of February, the ailment being what is commonly called 'going light,' and the pullet died the last of March, and was replaced by No. 6 on April 5th.

"Second pen, Light Brahmas.—These birds have been in the best of condition up to the present time. The small egg production early in the season must be explained by the fact that they are 'slow-maturing' fowls. In this pen, and, excepting the Leghorns, in all pens, the egg yield fell during April, owing to the broody condition of the hens. All broody hens were promptly removed to a strange pen to break up this condition, and in ten days were again ready for laying.

"Third pen, Barred Plymouth Rocks.—This pen consists of hens, while all others entered were pullets. This was due to an unfortunate misunderstanding, and is manifestly unfair to the breed, for hens are generally considered to be poorer winter layers than pullets. The hens were inclined to over-fatness, and were heavy eaters.

"Fourth pen, White Wyandottes.—These pullets have been in prime condition up to the present time.

"Fifth pen, American Reds.—These pullets were laying when shipped to the College, being the only ones laying at the time. They laid heavily until January 1st, 1905, when several of them molted and stopped laying. They are more inclined to broodiness than any other breed in the contest.

"Sixth pen, Buff Wyandottes.—These pullets have done well up to the present time.

"Seventh pen, Single-comb White Leghorns.—These pullets did well also, but suffered more from the severe cold than any other breed. No. 6 suddenly died April 17th, and was immediately replaced by No. 2.

"The accompanying table gives the egg yield and the value and cost of feed, figured according to local markets. At the close of the year more complete results, including the brooding periods, fertility of eggs and other points of interest, will be published. A study of the table will reveal a surprising difference in the individuality of the hens. This contest should prove much more interesting and instructive than previous contests where no records of individual performance were kept."

Note.—Each hen is designated by a number.

ROSE-COMB WHITE LEGHORNS.

No.	Total No. eggs.	Value.	Feed cost.	Loss.	Gain.
1.....	92	\$1.278	\$0.439		\$0.839
2.....	75	1.031	.439		.592
3.....	31	.512	.361		.151
4.....	44	.552	.439		.113
5.....	58	.718	.439		.279
6.....	96	1.336	.439		.897
7.....	8	.086	.065		.021
Total.	404	\$5.513	\$2.621		\$2.892

Monthly production of above: November, 6; December, 61; January, 80; February, 54; March, 110; April, 93. Total, 404.

LIGHT BRAHMAS.

No.	Total.	Value.	Feed cost.	Loss.	Gain.
1.....	63	\$0.81	\$0.525		\$0.285
2.....	34	.383	.525	\$0.142	
3.....	49	.655	.525		.130
4.....	53	.674	.525		.149
5.....	30	.327	.525	.198	
6.....	38	.416	.525	.109	
Total.	267	\$3.265	\$3.150		\$0.115

Monthly production of above: November, 0; December, 4; January, 21; February, 43; March, 111; April, 88. Total, 267.

BARRED PLYMOUTH ROCKS.

No.	Total.	Value.	Feed cost.	Loss.	Gain.
1.....	52	\$0.676	\$0.527		\$0.149
2.....	38	.425	.527	\$0.102	
3.....	86	1.177	.527		.650
4.....	36	.395	.527	.182	
5.....	33	.362	.527	.165	
6.....	34	.372	.527	.155	
Total.	279	\$3.407	\$3.162		\$0.245

Monthly production: Nov., 2; Dec., 29; Jan., 20; Feb., 14; March, 126; April, 88. Total, 279.

WHITE WYANDOTTES.

No.	Total.	Value.	Feed cost.	Loss.	Gain.
1.....	55	\$0.689	\$0.507		\$0.182
2.....	41	.452	.507	\$0.055	
3.....	64	.849	.507		.342
4.....	112	1.585	.507		1.078
5.....	41	.449	.507	.058	
6.....	39	.429	.507	.078	
Total.	352	\$4.453	\$3.042		\$1.411

Monthly production: Nov., 2; Dec., 36; Jan., 43; Feb., 31; March, 139; April, 101. Total, 352.

AMERICAN REDS.

No.	Total.	Value.	Feed cost.	Loss.	Gain.
1.....	93	\$1.369	\$0.499		\$0.870
2.....	83	1.222	.499		.723
3.....	64	.833	.499		.334
4.....	47	.564	.499		.065
5.....	97	1.399	.499		.900
6.....	78	1.069	.499		.570
Total.	462	\$6.456	\$2.994		\$3.462

Monthly production: Nov., 59; Dec., 101; Jan., 54; Feb., 24; March, 130; April, 94. Total, 462.

BUFF WYANDOTTES.

No.	Total.	Value.	Feed cost.	Loss.	Gain.
1.....	91	\$1.293	\$0.513		\$0.780
2.....	85	1.169	.513		.656
3.....	70	.930	.513		.417
4.....	76	1.016	.513		.503
5.....	65	.857	.513		.344
6.....	8	.124	.513	\$0.389	
Total.	395	\$5.389	\$3.078		\$2.311

Monthly production: Nov., 0; Dec., 44; Jan., 82; Feb., 75; March, 110; April, 84. Total, 395.

SINGLE-COMB WHITE LEGHORNS.

No.	Total.	Value.	Feed cost.	Loss.	Gain.
1.....	75	\$0.996	\$0.437		\$0.559
2.....	5	.054	.032		.022
3.....	51	.643	.437		.206
4.....	57	.688	.437		.251
5.....	51	.620	.437		.183
6.....	75	1.053	.437		.616
7.....	33	.364	.407	\$0.043	
Total.	347	\$4.418	\$2.624		\$1.794

Monthly production: Nov., 14; Dec., 49; Jan., 16; Feb., 34; March, 131; April, 103. Total, 347.

A farmer is kicking because he gave his daughter a pair of chickens two years ago and promised to feed the increase for four years if she would take care of them. He says that she has \$61 in the bank, and also 200 chickens that he had to feed all winter. He also says that at the end of the four years she will own the farm and will be charging him rent for living upon it.—[Ex.]

Possibilities in Egg Production.

Mr. James Long, writing in the Farmer's Gazette (British), says:

"A correspondent writes, referring to the English Utility Poultry Club's competitions, as well as the competition in New South Wales, in which as many as 220 to 250 eggs had been laid within a year, or an equivalent number in four winter months, to say that he regards such figures as almost incomprehensible. There are, no doubt, many persons who take the same view, and who look upon 158 eggs as a large number to be laid by a hen within twelve months. In this case the writer believes that seven eggs laid in fourteen days by hens of the very best breed is excellent work, and he points out that at least twelve weeks in the year are non-productive, so that, taking forty weeks as the period which would cover a hen's laying season, we get 140 eggs as the net result. It is perfectly true that such a number is excellent, and that were it common throughout the whole of a flock of birds it would pay extremely well. Unhappily it is not common by any means, and so far from a hen laying 140 eggs on the average in this country, it is more than probable that the average is nearer to 80. What with the period of moulting in the autumn, and the cessation of laying in the winter, owing to severe weather, it is quite possible that instead of twelve weeks the average hen in the poultry-yard is still longer unproductive. I cannot for a moment find fault with my correspondent's suggestion that 150 eggs is first-class, but he makes his own remark on the basis of the results attained in his own poultry-yard. He says: 'I have at this moment 23 pullets, hatched in April last year, kept apart. They have been laying eleven weeks, and only since some three or four weeks have they laid from 58 to 68 eggs per week, or practically three eggs per bird, which would be equal to 120 in the forty productive weeks of the year.' Now we come to the more crucial point. My correspondent says, 'What can be done with birds hatched in January by the aid of incubators, I cannot say. They would commence by the latter end of August, and might lay right through to the following July, a period of 45 weeks, although they would not lay three eggs per week during the whole of this period.' That is the result of his experience of thirty years; the eggs have been daily set down, and a balance sheet made each year. It is precisely this question of early hatching which touches the spot. Nobody supposes that the hen after her first year will lay 200 eggs or more in her second year. It is the early-hatched pullet which commences to lay in August, or thereabouts, and which continues to lay with more or less frequency until the moulting time in the following year. We cannot date the commencement of the laying year until the bird commences to lay, at which time she possesses a specific value. After commencing to lay, we date forward twelve months, and it is the early-hatched pullet that lays a batch of eggs in autumn, and continues to lay through the winter and the following spring, that does the best work. It is these pullets which compete in connection with the Utility Poultry Club tests, and which were employed in this year's laying competition inaugurated by the Government of New South Wales; and, after all, an average of four eggs a week is not a very serious thing to contend for in the case of an early-hatched pullet, especially of the non-sitting varieties, but, curiously, it is the sitting varieties which usually come to the top.

Profit in Turkeys.

In view of the high price paid for turkeys, it is at first surprising that so few are raised; but this, of course, is explained by the difficulty which many experience in rearing them. Yet, if some can raise them as easily and with no more mortality than is common in chicken-raising, others could do the same if they knew how.

The first mistake made by beginners is in the choice of stock. Some breeders, in working for fine color and great size in a breed, have neglected vitality. If a novice is starting with eggs, hose and stand in dark creamery, and blow steam the first thing he should seek to know about the stock he buys from is whether or not it is vigorous. One who is doing his own breeding should select for vitality first, and all the color and size he can get with it; but an 18-pound tom which is full of ginger and action is a much better bird to breed from than a sluggish 25-pounder; for getting the young poults through the first few weeks of their lives is where the difficulty lies, and vitality counts for everything then.

As to varieties, the Bronze turkey is too well known to need comment. The White Holland has some virtues worth noting for the benefit of those not acquainted with it. Produced in a country where wide range was shut off by water, it has developed a quieter disposition than other turkeys, and while it takes to the range, it does not wander so widely and does not have the wild-bird instinct which leads it to be careful about

hiding its nest, as is the case with most turkeys. Just the other day the writer saw a white turkey hen contentedly sitting on her nest not over twelve feet from the road leading from a farmer's gate to his house. She was not at all disturbed by the passing of a stranger. The White Hollands are a little smaller than the Bronze, but compensation is made for this in the fact that they mature more quickly and do not need to be hatched so early in order to be fully grown by the time cold weather sets in. This is an advantage, as many young turkeys are lost in the spring rains, and it does not pay to hatch them too early, as confinement in rainy weather is about as hard on them as the rain.

Success in turkey-raising comes only to those who are careful in every detail. It is for this reason that many of the most successful turkey-breeders are women.

This care must begin when the poult first comes out of the shell. Each should be taken from the hen as soon as it is dry, and covered with woolen. When the hatch is completed, a little grease should be put on the head of each to prevent lice from working there; one big louse on a poult's head may kill it, but too much grease is as bad as the louse. Dust each well with insect powder, and repeat once a week till too large to handle well.

Put the hen in a box with a crack in the cover through which she may put her head. Put liquid lice-killer in the box. Leave her there an hour.

She should be shut up in a coop for the first two days; three if the weather is chilly or damp, but not longer than that. Turkeys need exercise and must range. It is well to watch the hen and see that she comes back to the coop at night, where she may be shut in and protected from rain and vermin. The coop should be kept clean if it has a bottom, and shifted frequently if it is without a bottom.

Great care is necessary in feeding at first. It is far better to let them run with the hen on free range and give them no feed at all than to overfeed them or feed them improperly. Feed them boiled eggs. Start the eggs in cold water and boil half an hour. Chop them up shells and all. Alternate this with milk curd, or cottage cheese, as it is sometimes called; chop a little lettuce or dandelion into it. They should be fed in the morning only what they will eat up quickly. If fed enough so that they are not hungry, they will stand around and not exercise, and die of indigestion. If not fed at all the hen will keep them moving so much in search of food that she will tire them out. Two feeds a day are enough. After the first four weeks they may be fed chick-food or small grains. No corn should be fed to a turkey before it is full-grown.

A turkey's worst troubles are three in number, and in order of their seriousness stand thus: overfeeding, lice and rain. W. I. T.

Events of the World.

Canadian.

Hon. Mr. Emmerson has approved location plans for the Grand Trunk Pacific terminus at Kaiwan Island, south-west of Port Simpson.

Mr. F. B. Wade, Chairman of the Transcontinental Railway Commission, died at Ottawa, of cerebro-spinal meningitis. He was 52 years of age.

Alexander Cameron, a painter, of Lindsay, Ont., aged 27 years, has been awarded a medal by the Carnegie Hero Fund Commission, for life-saving in May of last year.

Rev. H. A. Kennedy, M.A., D. Sc., of Callander, Scotland, has been appointed to the Chair of New Testament Literature and Exegesis in Knox College, Toronto, rendered vacant by the death of Principal Cavan.

Two business blocks at White Horse, Yukon, were recently destroyed by fire, the loss being estimated at \$250,000. At London, Ont., on May 25th, the Dymont & Baker Lumber Co.'s property was burned; loss estimated at \$100,000.

The first report of the Board of Railway Commissioners was presented to Parliament on May 22nd. It was shown that the number of applications made to the Board during the portion of the year between February 1st and December 31st was 1,175. The total number of filings made during that time approximated 6,000.

The first contingent of Canadians to occupy the Citadel at Halifax was installed on May 25th. It consisted of upwards of 200 men, chiefly from Fredericton and St. John, B.C. Four hundred Canadians in all have been enlisted for the Halifax garrison.

The work of tunnelling under the Detroit river will begin on the Canadian side from the town of Sandwich. Two tunnels running parallel to each other will be con-

structed, with a space of 30 or 35 feet between them. These will be supplied with great steel tubes, the whole cost amounting to \$7,500,000. In order to obviate the danger of poisonous gases, electric locomotives will be used for hauling trains through.

Extensive tin and sheet-steel manufactories, financed by New York, Montreal and Toronto capitalists, are being installed at Morrisburg, Ont. Twenty-eight mills will be built, and 3,000 men employed, of whom 200 will be practical plate and sheet-iron workers from South Wales. The company will be known as the Canadian Tin Plate and Sheet Steel Co.

British and Foreign.

Baron Alphonse de Rothschild, head of the French branch of Rothschild, died May 26th.

Pigeon shooting has been abolished in England, as lending itself to cruelties unworthy of sportsmen.

Prince Nakashidze, Governor of Baku, Russia, has been assassinated by a bomb thrown at his carriage.

Servia is almost in open revolt against King Peter, whose cruelty and incapacity are openly denounced.

Cerebro-spinal meningitis has broken out in Northamptonshire, England. From Germany over 2,000 cases and 1,926 deaths from the disease have been reported.

Forty-four Russian soldiers and sailors, insane since the siege of Port Arthur, have been transported from Chefoo to Odessa. All are physical wrecks, and little hope is given of their recovery.

By the explosion of a bomb intended for Governor Maximovitch, at Warsaw, the man who carried it and two detectives have been killed, and 23 people injured. A bomb-manufactory, containing 137 bombs, has been unearthed at Odessa, and many arrests made in consequence.

Every additional detail of the terrific Battle of Tsushima, fought in the Straits of Corea, May 27th and 28th, but adds to the magnitude of the Russian loss. Nineteen battleships and three destroyers have now been authentically reported as sunk or captured, and of all the great Armada which sailed northward after so many vicissitudes, only three, the cruiser Almaz, torpedo-boat destroyer Grozny, and hospital ship Orel, have straggled into Vladivostok to tell the pitiful story. An additional catastrophe is reported in the loss of the Gromobol, which, having gone out from Vladivostok to meet the remnant of the fleet, is said to have struck a Japanese mine and gone down with all on board, 800 men, including Vice-Admiral Skrydloff.

The story of the encounter, as told by the survivors on the Almaz, would seem to indicate that it might well be termed the Battle of the Torpedoes. Admiral Togo, it appears, held his position steadily in the vicinity of the Straits, refusing to be lured away, until warned by wireless messages that the Russian fleet was approaching. When the opportune moment came he pursued forward and opened a terrific fire on the flank of the port column. Steadily, systematically, he pressed the whole division toward the Japanese coast, then, as evening fell, the torpedo boats—the "mosquito fleet"—did their work. Out they came in swarms, pressing round the big battleships in every direction, and aided to some extent by a fog which partially concealed their movements. One after another the great vessels foundered and went down, while now and then was heard a terrific explosion, which told that a magazine had become ignited, or that a submarine mine was doing its deadly work. Presently Admiral Rojestvensky's flagship, the Kniaz Souvaroff, was seen to tremble from stem to stern, then to settle slowly into the waves, leaving her crew struggling helplessly in the water. One report states that Rojestvensky was picked up, swimming for life, though severely wounded. According to another, he was lowered from the sinking vessel into a destroyer, which was afterwards captured. At all events, to him has been accorded the credit of being taken while fighting bravely at his post. Nebogotoff's surrender, on the contrary, is looked upon as a disgrace. Cut off from the rest of the fleet by the slower movement of his vessels, he, it seems, turned and fled, followed by swift Japanese cruisers, which succeeded in overtaking him near the Liancourt Rocks. Of his five vessels, four surrendered; the other made good its escape. Nebogotoff and Voelkersam are both among the 3,000 Russian prisoners. Upon the day following the battle, boats and wreckage kept drifting in all day to the shore, even the debris being covered with clinging and exhausted men, many of whom were badly wounded.

As yet the Japanese losses have not been published, although it is known that two at least of her vessels were sunk.

The Czar has been prostrated by the news, but in many parts of Europe the disaster is looked upon as, possibly, a merciful termination to a long and cruel war. Foreign nations, especially France, are bearing all their influence in favor of peace, but Russia's determination has not yet been announced. Should she choose to go on with the war, Vladivostok will certainly be invested in the near future, and Admiral Birleff, to whom has been recently given supreme command of the port, will in all probability be Russia's next offering to the little yellow power of the East.

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Field Notes.

Just south of Saskatoon a steam plow is at work, breaking the sod in a seven-thousand-acre field. This looks like the return of bonanza farming.

An Englishman named Taylor, left Lancashire this spring, and within three weeks had bought a farm in Manitoba, team, outfit, and had a large amount plowed and sown. It is seldom an immigrant makes such rapid progress as this.

The Panama Canal.

Away down on the Isthmus of Panama there may be seen one of the busiest and most interesting sights on the face of the old earth to-day. In the little valley, 10 miles wide and 47 long, which reaches out one hand to the Pacific and the other to the Carribean Sea, under the hot, tropical sun, 6,000 men—Spaniards, Jamaicans, Frenchmen, Colombians, Americans—swarm about at a variety of tasks. The sound of hammers and sledges mingles with the roar of machinery, and all the while fourteen big steam shovels creak and groan as they swing away, lading out solid rock and hard pan at the rate of 1,000 cubic yards per shovel per day. In addition to these a number of old French "excavators" are scratching out the softer earth at an almost equal rate, while, to add to the liveliness of the scene, railway trucks run incessantly, new tracks are being laid, hospitals, repair shops, manufacturing and supply depots are being built, and the whole valley is becoming metamorphosed into a continuous town, whose every activity, however, is directed toward the big ditch that steadily but slowly grows below. That it should become so metamorphosed is imperative, since the work must by no means be checked, and it is necessary that both supplies and repairs may be rushed to the workmen at the shortest possible notice. A peep into the immense shops at Culebra, half way between the seas, and high in the mountains where the air is easy to breathe, would probably give some index to the requirements of the big contract below. These are, in fact, the biggest repair shops in the world, and cover several acres.

Only ten months ago the American engineers began to make the first surveys across the isthmus. It was found, as was expected, to be reeking with miasma and yellow fever, even its towns—Colon and Panama—being in a dangerously unsanitary state of carelessness and filth. Obviously, the first task was to change these conditions, and so completely has this been done that to-day yellow fever is the exception rather than the rule in the valley. Swamps have been drained, mosquito marshes destroyed, old buildings fumigated, and hospitals erected all along the route. In addition, street-cleaning scavengers have wrought a revolution in the towns, and Panama is being equipped with a complete system of water supply and sewers. All these steps were necessary for the safety of the hordes of workmen who, for the next ten years, must work away at carrying out the big scheme which, once set afoot by the Americans, will not be lightly abandoned as was that of the French before them.

The recklessness and extravagance of the French have been a constant source of astonishment to the American engineers. In making the surveys the latter came upon numbers of workshops, half overgrown with vegetation, yet filled with machinery and supplies abandoned twenty years ago. In one place tons of rusted steel pens, even, were discovered, evidently sent thither by some mismanagement and permitted to remain. Of the old machinery much has become obsolete in the light of modern inventions, but the material is being utilized, and the old trucks, locomotives and excavators have been repaired and are doing good service in the lighter portions of the work.

The canal will not be completed for ten years, but even at that, the speed with which it will have been accomplished may be a matter of congratulation well worthy of the demonstration with which will be celebrated the crowning day—that day upon which the great steam shovels will groan for the last time, when sea will join hand with sea, and human skill will laugh at the barriers which sent Magellan and those who followed him painfully groping about the stern headlands of Cape Horn. At present it has not been fully decided whether the excavation will be carried to sea level, or whether the lock system will be adopted; but whichever plan is decided upon, the result is sure to be a triumph to American enterprise, and a boon to the commerce of the world.

An Active Grain-growers' Association.

The Boissevain Grain-growers' Association will hold a plowing match at their town on June 27th, and good prizes will be offered. Wm. Miller is the president.

Representative Men of Western Canada.

Thos. Baird, whose portrait appears herewith, is a native of Scotland, the County of Ayrshire claiming him as a son. Mr. Baird left Scotland for Illinois (U. S.), in 1872, and assumed the duties of home-making, taking to himself a Scotch lassie (a Miss Scott) for a helpmate, farming in Nebraska for some years quite suc-



Thos. Baird, Red Willow, Alta.

cessfully. Unable to resist the attraction of Western Canada's fertile lands, he crossed the line in 1901, and now owns 320 acres, in the Red Willow district. A satisfied settler, he has induced numbers of others to come to the land of promise, with which all seem to be well satisfied.

Facts About Manitoba and the Northwest.

Canada has the largest continuous wheat field in the world.

Canada's wheat field is approximately 300 by 900 miles in extent.

Canada's wheat-growing area in the West is, according to Prof. Saunders, 171,000,000 acres in extent, and has as yet only 5,000,000 acres under cultivation.

If one-quarter of the 171,000,000 acres was under wheat, it would not only supply the British demand three times over, but the home market also.

Manitoba has only ten per cent. of her lands taken up.

Manitoba's area under wheat, 1904, was ten per cent. more than 1903.

Canada's Northwest land areas are 50 per cent. larger than ten of the Western States.

Northwest Territories' area under wheat, 1904, was 20 per cent. more than 1903.

Ten million acres of Northwest lands were acquired for settlement by grant and purchase in 1903.

Sixty-four thousand homestead entries were made in the Northwest in the last three years, equal to 10,000,000 acres.

The Northwest land companies and railways sold, in 1903, 4,000,000 acres of land for over \$14,000,000.

The C.P.R. has sold over 5,000,000 acres of its land grant of 25,000,000 acres. The 5,000,000 acres realized \$18,000,000, an average of \$3.60 per acre.

Canada has given 57,000,000 acres of land to railway companies in the Northwest—an area as large as that of Assiniboia.

Of the 31,383 homestead entries in 1903, 11,841 were taken up by Americans who came from forty-three States and Territories. Dakota sent 4,006, and Minnesota 3,887.

Manitoba's population has two of English speech to one of foreign speech.

The Northwest Territories have 84,000 of foreign birth, and 74,870 of Canadian and British origin.

Canada has 10,000 miles of rivers west of Lake Superior navigable by steamers.

Winnipeg is Canada's half-way house between oceans. Winnipeg ranks third in Canadian cities in her clearing-house business.

Fruit Shipping in Colorado.

In one of the local fruit-shipping associations in Colorado, the duties of the manager are defined as follows:

The general manager shall receive the fruit or vegetables from the grower and market them, according to his judgment, in the best and most expeditious manner possible.

He shall do all the buying and selling of the association under the direction of the directors.

He shall make payments on account from time to time to the growers for fruit delivered before the final settlement, and at the end of the fruit season turn over to the treasurer such profits as may have accumulated.

He shall keep accurate accounts of all business transacted, and all his books shall be open to inspection at any time by the directors, to whom he shall make reports, as requested by them. A suitable compensation, to be determined by the directors, shall be allowed him for his services. He shall give bond satisfactory to the directors for the faithful performance of his duties.

The rules governing the handling of fruit are as follows:

Section 1—Stockholders shall not be permitted to ship their fruit to points outside of the city named, without permission of the general manager. Growers who are not stockholders may sell their fruit through the association, subject to the same shipping rules as the stockholders, but shall not share in the dividends.

Sec. 2—Each grower, whether stockholder or not, when delivering fruit to the association, shall be required to have his or her name plainly stenciled or printed on each crate, box, basket, or other package, for the purpose of identification.

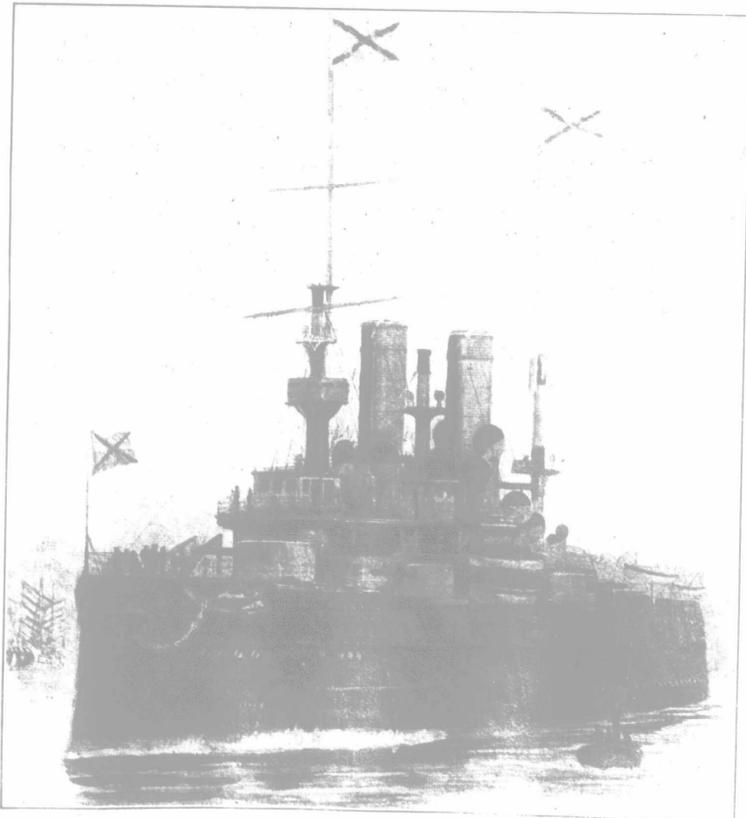
Sec. 3—All fruit delivered to the Association for sale shall be carefully prepared for market and delivered in as fresh and good condition as possible, and the general manager shall have the

right to refuse any fruit offered to him not in a marketable condition.

Sec. 4—All fruit delivered to the association for sale shall be carefully examined by the general manager, and classified as to kind and grade, and classified according to quality and condition.

Sec. 5—All fruit delivered to the association in any one day shall be treated as an entirety, subject to classification as to kind and grade, irrespective of who raised or delivered the same. Each grower who delivered a portion of said fruit shall be entitled to his or her share of the proceeds of the sale thereof, in proportion to the number of crates, boxes, baskets, etc., furnished by each grower, and according to the classification of the kind and grade of fruit.

Sec. 6—A certain proportion of each day's sales, not to exceed 10 per cent. of the total,



Modern Battle-ship.

shall be withheld for distribution by the general manager, for the purpose of paying the expenses of the association, and dividends on the capital stock. The proportion to be so withheld shall be determined by the directors at the beginning of each year.

Things to Remember.

LIVE-STOCK SHOWS, SALES, FAIRS AND CONVENTIONS.

Portage and Lakeside plowing match, June 13.
Thos. W. Wallace's sale of Shorthorns; June 14.

FAIRS.

Neepawa (summer show); June 29 and 30, July 1.
Yorkton (Assa.) Show; July 12 and 13.
Swan Lake; July 18.
Minnedosa; July 18 and 19.
Winnipeg Industrial, July 20 to 28.
W. A. A. A., Brandon; July 31 to August 5.
Killarney (summer show); August 8, 9, 10.
Manitou Show; August 11 and 12.
Edmonton Fair; June 29 to July 9.
Calgary; July 18 to 20.
Dominion Exhibition, New Westminster, B.C.; Sept. 27, Oct. 1.

MANITOBA FAIR DATES (DEPT. OF AGRICULTURE CIRCUITS).

Elkhorn	July 17 and 18
Virden	July 19 and 19
Carberry	July 19 and 20
Westbourne	July 21
Hartney	July 18 and 19
Melita	July 19 and 20
Deloraine	July 20 and 21
Cartwright	July 18 and 19
PHot Mound	July 19 and 20
Morden	July 20 and 21
Shoal Lake	Aug. 8
Strathclair	Aug. 9
Oak River	Aug. 10
Hamiota	Aug. 11
Carman	July 6 and 7
Morris	July 10 and 11
Crystal City	July 13 and 14
Portage la Prairie	July 18 and 19
Wawanesa	July 20
Cypress River	July 21
Dauphin	Aug. 8
Swan River	Aug. 10

N.-W. T. SHOWS.

Grenfell Aug. 10 and 11
Prince Albert Aug. 14 and 15

FALL FAIRS.

Woodlands	Sept. 27
Stonewall	Sept. 27 and 28
Gilbert Plains	Oct. 3
St. Jean	Oct. 3
St. Pierre	Oct. 4
Brokenhead	Oct. 4 and 5
Russell	Oct. 5
Macgregor	Oct. 6
Austin	Oct. 6
Headingley	Oct. 11
Meadow Lea	Oct. 12
Grenfell Grain Show	Dec. 7

Secretaries of fairs and agricultural societies are requested to send in their dates, so that their fixtures may be made known to our readers.

Alcohol Condemned.

A recent issue of the "Farmer's Advocate" contained a brief reference to the opinion of Sir Frederick Treves, one of the most eminent British physicians in the world to-day, on the use of alcohol. We learn from the Daily Express, of London, Eng., that his statements before the Church of England Temperance Society were as follows: It is distinctly a poison, and the limitation of its use should be as strict as that of any other kind of poison. It is, moreover, an insidious poison, producing effects for which the only antidote is alcohol again. It is not an appetizer, and even in small quantities it hinders digestion. Its stimulating effect only lasts for a moment, and after it has passed the capacity for work falls enormously. It brings up the reserve forces of the body and throws them into action, with the result that when they are used up there is nothing to fall back upon. On the march to Ladysmith the soldiers who were drinkers fell out as though they were labelled. The use of alcohol is inconsistent with work which requires quick, keen and alert judgment. Sir Frederick said that the use of alcohol is emphatically diminishing in hospital practice and among professional men who work hard during the day. He favored extreme total abstinence. Being a surgeon, he has seen the effect of the use of alcoholic liquors on the system of those who have to be operated upon, and who recover from the knife with less success than do those who use little or no such beverages. The use of liquors in Great Britain is decreasing, and public sentiment is more and more against them. Even in Russia the Old Believers, a very rich community, are total abstainers.

Grain-growers' Executive at Work.

President, D. W. McCuaig, Portage la Prairie; R. Henders, R. McKenzie, and W. G. Rodgers, representing the Manitoba Grain-growers' Association, recently met in Winnipeg, and conferred with the Industrial Exhibition authorities, re the continuance of prizes to agricultural societies and grain-growers' associations for collections of agricultural products, i. e., two bushels each of Red Fife wheat, white oats, six-rowed barley, field peas and flax, with a four-inch sheaf of wheat, oats, barley, timothy, brome, rye grass and clover or alfalfa, to be judged by points. Prizes will also be awarded for the best five bushels of Red Fife wheat and five bushels of white oats exhibited by these associations.

The deputation also interviewed the different coal companies, securing from them the promise that coal in car lots would be delivered to farmers at the several sidings along the new lines of railroad throughout the Province where the companies were without agents. The secretaries of subordinate associations can purchase and deliver the coal, saving the farmers, in many cases, long drives to secure fuel.

Stock Food Once More.

To the Editor "Farmer's Advocate":

Sir,—In your issue of April 19th, I find an article written by Mr. J. H. Grisdale, replying to my letter in a former issue. As Mr. Grisdale had the first say, perhaps I am entitled to the last. In regard to my position I may state that I am a partner in and the active manager of the Canadian business of the International Stock Food Co. I did not intend to make any secret of this fact in my recent letter. I am proud of my position, and I wish to appear frankly and honestly before the farmers of Canada as a business man stating facts about his business.

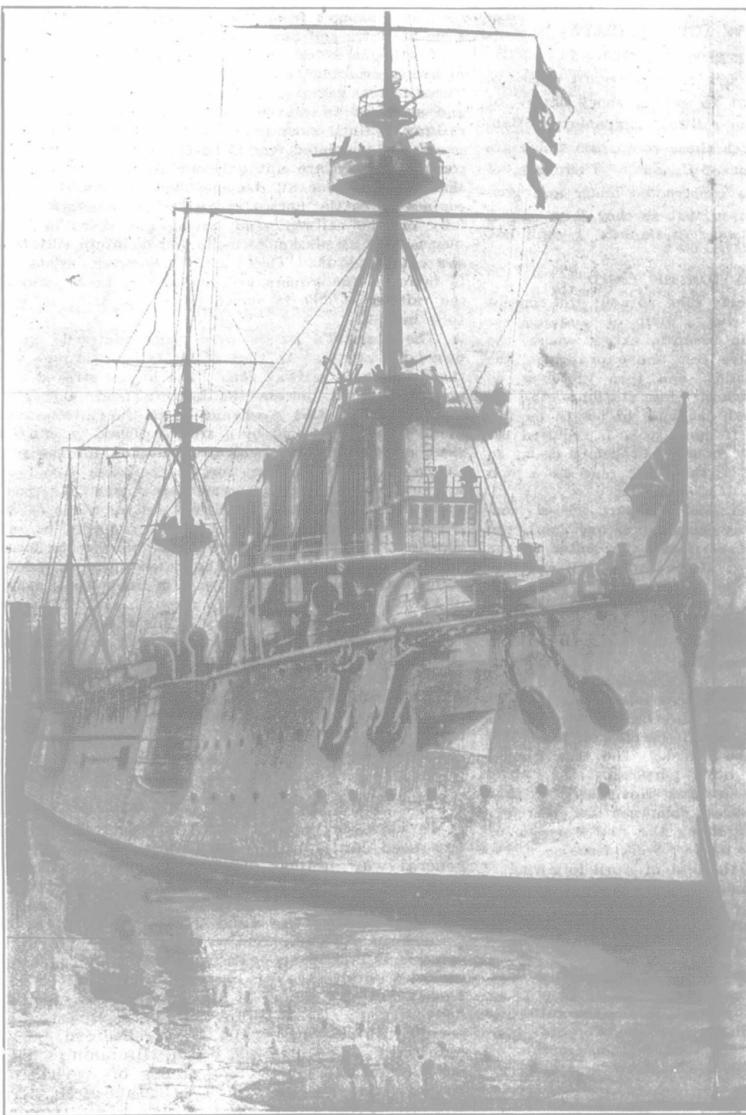
Mr. Grisdale makes the following statement: "Scientific and practical men interested in animal nutrition are agreed that the continuous use of stimulants is degenerative in its general effects. The preparation or prescription that is a tonic in effect and likely to prove helpful in time of ill health is, if its use is continued after the restoration of health, likely to prove a detriment rather than a benefit."

I take it for granted that almost every civilized human being uses some such condiments and medicines with their food as salt, mustard, vinegar, pepper, etc., all of which are tonics and medicines, according to the best authorities, and are often-times given in the form of medicines by physicians, combined or uncombined with other medicines. If the continuous use of these is harmful to good health, and also useless and expensive, why does the human race continue to make use of them? Should any person try to do this we feel confident that he would not find his food appetizing, and the chances are good that he would be overtaken with an attack of sickness of some kind. Our claim is that there are pure vegetable tonics which can be given to stock suffering from ill health, or to stock in good condition, and that beneficial results can be obtained at all times.

Mr. Grisdale also says: "I have made a study of scientific agriculture for many years, and have devoted special attention to animal nutrition, and, sir, never, save in stock food advertisements, have I come across the above quoted foundationless remark. Further, I have not been able to meet anyone who held that opinion or had heard it or seen it advanced, save in the above-mentioned connection." The paragraph he refers to stated that by increasing the digestibility of the grain fed to stock more of this grain would be assimilated or taken into the system, and for this reason less could be fed and equally satisfactory results obtained.

Now I cannot understand why Mr. Grisdale should make a remark of this nature. He has certainly walked along the streets and noticed whole oats in the droppings from horses. He has probably seen a manure pile and noticed the same thing. No doubt every reader of the "Farmer's Advocate" is familiar with the practice followed in some parts of the country of running hogs after steers, allowing them to feed on the droppings. Were all the grain digested in passing through the system of the steer, there certainly would be very poor picking for the hogs, and this operation could not be carried on successfully. The fact that it has been proved that there is a large amount of grain fed which is wasted.

I also take the liberty of referring him to any



Modern Armored Cruiser.

Battle-ships and Cruisers.

The accompanying engravings show the most modern type of battle-ships and cruisers, built to secure at once the swiftest rate of speed with the strongest armament, greatest range of action and most effective protection. They will afford our readers an idea of the craft engaged in the present terrific struggle between Russia and Japan. The cruiser, although less heavily armed than the battle-ship, is more rapid in movement, and so is likely to prove useful in an action in many places where a battle-ship might prove cumbersome. How rapidly improvements are being made in these vessels may be judged from the fact that thirty-one "obsolete" war-ships—built, be it noted, for the most part, in the eighties—have recently been discarded, sold as junk. In even less time the great sea-dogs of to-day may be judged equally worthless. The cost of a single battle-ship runs into millions of dollars, and it may be put out of business and entirely destroyed by a single torpedo.

tables showing the average composition of our feeding stuffs, and ask him to compare the composition with the tables, showing the average digestibility of our feeding stuffs. I believe that he will find there is, as a general thing, from 80% to 55% of the available protein fed which has gone to waste.

I also notice that Mr. Grisdale did not refer to the part of my letter where I stated that the International Stock Food Co. would ship any farmer in Canada 100 pounds of stock food, allowing a four months' trial, with the agreement, that if satisfactory results were not obtained he need not pay for the stock food.

We don't claim a miraculous preparation, but we don't want to be judged by one man or one set of men. We want every farmer and stockman to make a trial of "International Stock Food" on their own account, believing that in a very large per cent. of cases satisfactory results will be obtained.

I also want to go on record as stating that we do not object to the published results of any test Mr. Grisdale may care to make. We simply object to the idea of attacking the stock food industry, which is rapidly becoming a very prominent one in Canada, on the strength of one, two, or even three experiments, which show very little in the face of the thousands of testimonials we have received from practical stockmen the world over.

E. B. SAVAGE.

Points in Law for Farmers.

THE FARMER AND THE RAILWAY.

In order to make the law in this regard clear to the farmer, I shall attempt to give a short digest of the rules which govern the railway companies in Canada. I shall deal only with those companies which are subject to the Railway Act of Canada. There are, of course, railways which are constructed under and governed by provincial legislation, but as they form only a small per cent. of the railways in Canada, I shall not touch on them.

I.—EXPROPRIATION OF LAND.

The railway company may take without the consent of the owner for right-of-way a strip of land not exceeding one hundred feet in breadth, except where the rail level is more than five feet above or below the surface of the adjacent lands, and then whatever is necessary for slope and ditches. For stations, etc., the land taken shall not exceed one mile in length by five hundred feet in breadth. If more space is required the company must apply to the board, but before doing so must give ten days' notice to the owner, and file a plan showing the land required.

During the construction, and for purposes of construction, the company may enter upon any land, not more than 600 feet distant from the center of the located line of the railway. If the owner will not consent to such occupation the company must pay into one of the superior courts of the province a sum fixed by a judge of such court. Compensation is made to the owner out of this sum, and the balance is then paid back to the company again.

Where it is necessary to cross and use certain lands for the purpose of obtaining materials or water for construction, etc., and the company desire to lay down the necessary tracks, they may, if permission is refused by the owner, apply to the board. The tracks must not, however, be used for other purposes.

The company may, on or after November the first in any year, upon payment of compensation therefor, enter upon any lands lying along the route or line of the railway and erect snow fences; every fence so erected shall be removed before the first of April following.

If the owners and the company cannot agree on the amount of compensation or damages, then the amount is to be decided by arbitration.

II.—BRANCH LINES.

The company may construct and operate branch lines which are not more than six miles long. Before so doing, however, the company must obtain the authority of the board, and file a plan showing the proposed location of the branch line. The time for construction of any such branch line shall not exceed two years.

III.—HIGHWAY CROSSINGS.

Upon obtaining permission from the board, the railway may be carried upon, along or across an existing highway. But in so doing no obstruction of the highway can be made with the works without turning the highway so as to leave an open and good passage for carriages. In making the crossing the rails must not rise above or sink below the level of the highway more than one inch.

The duty of the company is not merely to provide a crossing upon which the rails do not rise more than one inch or sink more than one inch below the level; but it is also the company's duty to construct and maintain such approaches as may be necessary to enable persons using the highway to avail themselves of the crossing. In a certain case in Manitoba a railway company laid a plank 14 feet long outside the rail, and did not grade the road up to the plank at one end of it, but left the ends of the ties exposed. It was held that the company was liable for an accident occurring to the plaintiff's mule by reason of the wheel-tires catching on one of the ties.

IV.—FARM CROSSINGS, FENCES, ETC.

The railway must make crossings for persons across whose lands it is carried, which crossings shall be convenient and proper for the crossing of the railway for farm purposes. But although obliged to make proper

crossings, a railway company is not obliged or authorized to go upon the adjoining lands of the owner and repair the approaches to a farm crossing over the railway. Where an accident to the plaintiff was caused by such approach being out of repair, it was held that the defendants were not liable. In crossing with live stock they must be in charge of some competent person, who must use all reasonable care and precaution. To show how strict this last rule is, let me quote a certain case:

The plaintiff's son, as it was getting dark, was taking three horses along a road which crossed the defendant's railway, riding one, leading another, and driving the third. The last horse, being 60 to 100 feet in front, attempted to cross the track as a train approached, and was killed. It was decided that the horse was not "in charge of" any person within the Act, and that the plaintiff could not recover.

The company must also erect and maintain upon the railway fences, gates and cattle-guards. The fences must be of a minimum height of four and a half feet on each side of the railway. At farm crossings these fences are to have swing gates, with proper hinges and fastenings. It is the duty of the company to make and duly maintain these gates with proper fastenings, and the knowledge of the owner of the farm that the fastenings are insufficient, and his failure to notify the company of that fact, will not prevent him from recovering damages from the company if his cattle stray from his farm and are killed or injured.

Cattle-guards on each side of the highway, at every highway crossing at rail-level must be maintained. These fences, gates and cattle-guards are to be suitable and sufficient to prevent cattle from getting on the railway. Until such fences and cattle-guards are duly made and completed, and if, after they are so made and completed they are not duly maintained, the company shall be liable for all damages done by its trains and engines to cattle, horses and other animals not wrongfully on the railway, and having got there in consequence of the omission to make and maintain such fences and cattle-guards. This liability, however, exists only in favor of the owners or occupants of lands adjoining the railway. This is shown by a case tried in Manitoba in 1893.

The plaintiff's horses were being wintered on his own land, adjacent to that of his father, through which the defendant's railway ran. The horses strayed along a private road, across the father's land, through a broken gate on this road, and on to the railway track, where they were killed by a train. There wasn't sufficient evidence of any general permission for the plaintiff to allow his stock to run on his father's land, and in the absence of such a permission it was held that it could not be said that the horses got upon the railway track from land where they might properly be, and, therefore, the defendants were not liable for the loss.

Any person who leaves the gates open, or permits animals to stray on the railway, is liable to a penalty of twenty dollars, and has no recourse against the company for the killing or injury of his cattle.

The company is under no obligation to erect fences along their line when the land adjoining is unoccupied or unimproved. Cattle straying upon the line across such unoccupied land are trespassing, and if injured there by accident without negligence, the company is not responsible. In such a case the onus as to negligence is upon the one who asserts it.

ATTORNEY.

Seed Growers' Convention.

In view of the widespread interest taken in the new seed control bill now before Parliament, the general war against weed seeds and weeds, and the policy of seed-grain improvement now under way, there should be a large rally at the annual meeting at Ottawa, June 27, 28 and 29, of the Canadian Seed-growers' Association, formally organized last year. The provisional programme includes addresses or papers by Hon. S. A. Fisher; Dr. Webber, of the Washington Dept. of Agriculture; Dr. William Saunders, Director Experimental Farms; Mr. S. A. Bedford, Supt. Manitoba Experimental Farm, Brandon; Thos. A. Peters, Deputy-Commissioner of Agriculture, Fredericton, N. B.; Prof. C. C. James, Mr. G. A. Gigault, Prof. C. A. Zavitz, Mr. J. H. Grisdale, L. S. Klinck, B.S.A., recently-appointed Agronomist for the new agricultural college at Ste. Anne, Que.; S. B. Briggs, Toronto, and others. The following are invited to contribute papers, to be read at the meeting: Dr. J. Hall, Rothamstead, Garten Bros., England; Henry Vilmorin, Paris, France; L. Burbank, Sebastopol, Cal.; H. Snyder, Minnesota; and W. Bateson, Cambridge, Mass. A wide range of practical and important topics will be taken up.

Nature Teaching.

Through the courtesy of the publisher, Mr. John Murray, London, Eng., we are in receipt of a new volume by Francis Watts, B. Sc., entitled "Nature Teaching." This work, which contains some 180 pages, was prepared especially for teachers of public schools, who also instruct their pupils in nature study. In it the functions of plants are plainly set forth, and phenomena explained. To those who are interested in an elementary study of plant physiology, this book is a most useful guide and help, being the maker through the various functions of the parts of plants from one extreme of the life cycle to the other. This exceedingly useful volume may be obtained through this office for \$1.25.

Horticultural Prospects.

To the Editor "Farmer's Advocate":

Replying to your query of May 25th, re condition of fruit trees and prospect for crop, would say that we have been so busy up to the present moment that we have scarcely had a chance to make a close examination of trees. Generally speaking, however, the apple, crab and plum trees have come through the winter in good condition, and several new varieties, which have not fruited before with us, are now in bloom, or about to bloom. Small fruits are looking healthy. As for strawberries, we always count for a certainty on a good crop, as since we developed our present system of growing strawberries, we have never had a poor crop, even in the most unfavorable seasons. Some new varieties of raspberries, which we were testing for hardiness without winter cover, look promising, and currants and gooseberries are very promising. Of course the season is early yet, and we may have trouble later from frost. The frosts of May 25th and 27th do not appear to have been very injurious. The earlier plums and apples are now in bloom; also currants and gooseberries. In a week or ten days we will be able to speak with much more certainty, and will be glad to give you a more detailed statement as to prospects.

Ornamental shrubs are very promising. It is certainly very gratifying to know that such a large number of the finest ornamental shrubs can be grown to advantage here. Lilacs in many varieties, caraganas, spiræas, snowballs, honeysuckles, etc., are already showing their flower-buds in profusion.

BUCHANAN NURSERY CO.

The Chinaman in South Africa.

The "Chinese" experiment in the Transvaal, which has been the subject of so much discussion and some division in the British House of Commons, has now reached a stage at which its advantages and disadvantages begin to be patent. In some respects it is proving satisfactory to a degree somewhat surprising to the opponents of it. It was feared, for instance, that the utilizing of Chinese labor would lessen the number of whites and Kaffirs engaged in the mines, but in almost every case the number of both has been increased. In the Geduld mine alone there are now employed 260 whites where formerly there were only 60, while in all there are 9,000 more Kaffirs employed than before the arrival of the coolies. On the other hand, the Chinese are adopting the habits of the whites with an almost startling rapidity. They have taken kindly to such luxuries as bicycles—and strikes, the latter much to the discomfiture of the mine officials, who had not expected such advanced demonstrations from the "heathen Chinese." There are already 60,000 Chinamen in the Transvaal, but no more will be imported until the advisability of the scheme has been more fully ascertained.

Advantage of Pure-bred Bulls.

The following argument along this line is credited to a prominent German scholar:

1. When a farmer thinks of buying a dairy bull to improve the quality of his future cows, he should look to the quality of the bull, not to the cheapness of price. The character and reliability of the breeder goes a great way in such a transaction. He should try to buy a "future" of good quality that will run on for generations, and that will help increase the good effects of every future sire that may be used.

2. He should always breed in the line of his first effort. If his first bull was a Holstein or a Guernsey or Jersey or Ayrshire, he should not break up the line of prepotencies and make a rope of sand of it. By a wise subsequent selection of sires of the same breed, selecting all the time for breeding power, he will enlarge and broaden the stream of dairy heredity. What we are after, in reality, is a better and stronger dairy heredity.

3. About the most reliable basis of calculation as to the power of transmission, or, as it is called, the prepotency of the bull, is the dairy character of the grandmothers and great-grandmothers on both sides of his pedigree. He is the stored-up result of what lies back of him. The quality of his ancestors will have more effect on his offspring than the performance of his mother. She gives to him of what she inherited more than of what she does. She may be rich in inherited qualities, and yet for some reason be herself only an ordinary performer. On the contrary, she may be a large performer at the pail, simply as a sport, but not having a strong tide of inheritance in a dairy direction, she has nothing to convey to son or daughter. This will explain why so many Shorthorn cows that are large performers themselves, fail utterly to convey their own dairy qualities to their progeny. Their line of breeding is from a beef heredity for many generations, and they give to their progeny what they inherited. A cow breeds from her blood, not from her udder. So we must have dairy pedigree as well as dairy performance, if we get our money's worth when buying a bull.

4. There is one thing more, quite necessary to consider in buying a dairy bull. Does he indicate from his appearance that he possesses a strong individual character? Is he of clear, determined dairy type, full of nervous energy, so that he will take possession of the female currents with which he is brought into contact, and thus stamp his buffers with the quality of the mothers that lie back of him?

Markets.

Winnipeg.

Thompson, Sons & Co. say: There is a manipulated and artificial condition in the speculative markets on the one hand, fostered by the scarcity of contract wheat in the American markets, and on the other hand there is an abundance of supplies going to importing countries from exporting countries outside of America, and a good to excellent prospect for this year's crops in America and Europe. It is true that the winter wheat crop in the south-west part of America—that is, Texas, Oklahoma and Kansas—has not had the best kind of weather recently, there being too much rain for a crop that is almost ready to harvest; and lately there has been fed to the markets a great deal of pessimistic reports from the south-western districts, which, however, come for the most part in the shape of gossip through speculative channels, and in many cases have the appearance of exaggeration. The weekly report of the reliable and conservative "Cincinnati Price Current" issued to-day says: "The winter wheat situation is good, except "limited areas heretofore unfavorable. Spring wheat is generally favorable." While the stocks of old wheat in America are undeniably very moderate, it is not to be expected that millers and flour dealers will do otherwise than work their trades on a hand-to-mouth basis, so long as prospects for this year's crops continue favorable. With cash wheat in Minneapolis around \$1.20 per bushel, July around \$1.10, and September selling at 86c., the miller will go slow on buying wheat for immediate delivery. The fact is the present high prices at Minneapolis are bringing supplies to that market from all parts of America, and with such prices obtainable and prospects of good crops, farmers are likely to clean out every bushel they have on hand. The flour trade is also very dull, for the same thing applies to flour dealers on flour as to millers on wheat; that is, the price of flour is very high for present delivery, but they see a good prospect for crops and lower prices later on, and no one wants to be caught with much stock on hand when the time comes for prices to decline. Then the export trade shows practically no demand from America, as Europe continues to be fully supplied from other countries. In our last week's review we suggested the idea that it seemed a question if Europe would be able to continue getting enough wheat from other countries to fill requirements up to time of new wheat without raising prices. It was surmised last week that world's shipments were going to be light, and it is a fact that Argentina and Australia shipped out a very small quantity last week, but when the weekly statement came on Monday it was a complete surprise to the trade, as it showed the shipments from Russia, the Danube country and India to have increased enormously, being over 7,000,000 bushels for these three countries, so that instead of a total of around 8,000,000 bushels as expected, the quantity was over 11,000,000 bushels. Europe needs a good supply of foreign wheat during the next three months, but when she gets it pushed forward to her at this rate, and at the same time has prospects of excellent crops of her own, there won't be much disposition to advance prices. Latest advices regarding European crops show very favorable prospects in every country except Spain and Portugal, where drouth did so much damage earlier in the season. More recent reports from India seem to indicate somewhat better results than were previously anticipated, and exports were

over a million bushels last week. The visible supply decreased last week 1,741,000 bushels, against a decrease of 2,165,000 bushels the previous week, and a decrease of 3,927,000 bushels last year. The world's shipments were 11,056,000 bushels, against 9,184,000 bushels the previous week, and 10,256,000 bushels last year. The world's visible supply, according to Bradstreet's, decreased 2,800,000 bushels, against a decrease of 3,259,000 bushels the previous week, and a decrease of 645,000 bushels last year.

In the Winnipeg market the trade in Manitoba wheat during the week has, for the most part, been extremely dull and quiet. Trades in the May delivery must be well evened up, as there seems no demand for May, and as the export and shipping trade is stagnant, it makes a very quiet market. The advances in the American markets have a slight influence in holding our prices up, but not sufficient to cause any advance worth mentioning, and as compared with a week ago, prices only show 1/4c. higher, and we can say that it is not often that we have such an indifferent and inactive market, and one on which it is so difficult to sell wheat to satisfaction. Farmers are now pretty well finished up with spring work, and whatever grain they may hold will likely be marketed in the next few weeks. The general opinion in the trade is that the supply back in farmers' hands is comparatively small. The country has been favored with another week of excellent weather for the crop, which is making very satisfactory progress, and conditions at this date are about all that could be desired. Prices are: No. 1 northern, 90c.; No. 2 northern, 87c.; No. 3 northern, 82c.; No. 4 extra, 74c.; No. 4 wheat, 73c.; No. 5 wheat, 62c.; feed, 60c.; feed No. 2, 58c. All prices are on a basis of in store, Ft. William and Pt. Arthur.

Millfeeds, flour and coarse grains unchanged from last quotations.

Hay—Fresh baled, in car lots, \$8; loose farmers' loads, \$10 to \$12.

Flaxseed—\$1.10, No. 1, Ft. William basis.

DAIRY PRODUCE.

Butter—Creamery butter, 25c. for bricks; Ontario creamery, 24c. (box). Dairy butter, receipts increasing and market lower; bricks (separator), 19c. to 20c.; rolls, 18c.; tubs, 16c. to 17c.

Eggs—12c. to 12 1/2c., fresh, by the case.

LIVE STOCK.

Cattle—Market firmer, 3 1/2c. to 4 1/2c. being quoted for good stuff; medium brings 3c. to 3 1/2c.

Sheep—Choice stuff quoted at 6c.

Hogs—Up a shade; select (160-220) bring 5 1/2c.; others, 5c., off cars here.

Toronto Horse Market.

The Canadian Horse Exchange, Jarvis Street, report that current prices range as follows:

Table with horse market prices: Single cobs and carriage horses, 15 to 16.1 hands \$160 to \$250; Single drivers, 15 to 16 hands 125 to 200; Matched pairs, carriage horses, 15 to 16.1 hands 350 to 700; Delivery horses, 1,100 to 1,200 lbs. 125 to 175; General-purpose and express horses, 1,200 to 1,350 lbs. 125 to 200; Draft horses, 1,350 to 1,750 lbs. 140 to 225; Serviceable second-hand workers 60 to 110; Serviceable second-hand drivers 60 to 110.

British Cattle Market.

London.—Cattle are quoted at 11c. to 12 1/2c. per pound; refrigerator beef, 8 1/2c. to 9c. per pound; sheep, 13c. to 14 1/2c. per pound.

U. S. Crop Report.

Washington.—In California the winter wheat crop is maturing rapidly, and an average yield is indicated. In Oregon and Washington growth has been rapid, too rank growth being reported from Oregon, where it is in danger of lodging. Oats—In the Dakotas, Minnesota and Nebraska oats have made slow growth, and the crop suffered deterioration in Texas, but in the principal oats States the outlook is very promising. Corn—Planting is largely finished, except in the lake region, Ohio Valley and northern portion of middle Atlantic States. Throughout the principal corn States germination and growth of corn has been very slow, owing to cool weather, and more than the usual amount of replanting will be necessary. In the Central Gulf States part of the crop has been laid by. In this region corn has suffered considerably from overflows. In Northern Texas, Oklahoma, Arkansas and Tennessee corn is much in need of cultivation.

Foreign Crop Conditions.

Broomhall's weekly foreign crop summary says: United Kingdom, Germany and France—The present condition of the wheat crop is favorable, notwithstanding the fact that the weather the past week has been drouthy. Supplies of home-grown wheat remain extremely small.

Hungary, Roumania, Bulgaria—Sufficient rain has fallen, and crop prospects are now bright.

Russia—The drouth in the south-west has been relieved by fairly general rains. There are continued complaints of delays in railway transportation of grain.

Italy—Extremely heavy rains have occurred in the north, but elsewhere conditions continue satisfactory.

Spain—The weather is now favorable.

Toronto.

Cattle—Choice export, \$5.45 to \$5.65; good to medium, \$5.10 to \$5.40; others, \$5 to \$5.10, and bulls, \$4.00 to \$4.25. Butchers' Cattle—Good to choice, \$5.20 to \$5.50; fair to good, \$4.80 to \$5.10; mixed lots, medium, \$4 to \$4.75; and common, \$3 to \$4. Stockers and Feeders—Feeders are quoted at \$4 to \$5.40; bulls, \$3.40 to \$3.80; stockers, \$2.50 to \$4.25; and stock bulls, \$1.75 to \$2.50.

Sheep and Lambs—Export sheep are quoted at \$3.50 to \$5 per cwt.; grain-fed lambs, \$6 to \$6.50; barnyards, \$3 to \$4; and springs, \$3 to \$5.

Hogs—\$6.50 per cwt. for selects, and \$6.25 for lights and fats.

Montreal.

Prime beefs, 5 1/2c. to 6 1/2c. per lb.; pretty good cattle, 4c. to near 5 1/2c.; rough bulls, 3c. to 4c., and common stock, 2 1/2c. to 3 1/2c. per pound. Shippers paid 4c. per pound for good, large sheep, and butchers', 3 1/2c. to 4c. per pound for the others. Lambs sold at from \$3 to \$5 each. Fat hogs sold at from 6 1/2c. to a little over 7 1/2c. per lb. Young pigs sold at from \$1.25 to \$2.00 each.

Chicago.

Cattle—Good to prime steers, \$5.50 to \$6.35; poor to medium, \$4 to \$5.40; stockers and feeders, \$2.75 to \$5. Hogs—Mixed and butchers', \$5 to \$5.37 1/2; good to choice, heavy, \$5.20 to \$5.30; rough, heavy, \$4.50 to \$5.10; light, \$5.15 to \$5.40; bulk of sales, \$5.20 to \$5.30. Sheep—Good to choice wethers, shorn, \$4.50 to \$5; fair to choice, mixed, shorn, \$3.50 to \$4.40; native lambs, shorn, \$5 to \$6.50.

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QUESTIONS AND ANSWERS. Veterinary.

GARGET.

Cow's udder caked all at once. Cow had been fed regularly. What is the matter, and what should be done? Ans.—This reads as a description of a case of mammitis (garget), inflammation of the udder. In such cases reduce the inflammation, local and constitutional, by a purgative of Epsom salts, 1 1/2 pounds, dissolved in two quarts of hot water and given when cool, followed by 1-ounce doses of saltpetre in the feed daily. Locally rub in hot lard, which might be preceded by bathing with hot water. If udder is very painful, milk out clean. If the pain is continuous, apply the following liniment: Fluid extract of belladonna, 1/2 ounce; tincture aconite, 4 ounces; tincture opium, 3 ounces; raw linseed oil to make 1 quart. Apply after bathing or poulticing, and rub well in.



Life, Literature and Education.

An Exemplary Poet.



Rev. Frederick George Scott.

It is not strange that the peoples of other countries have been slow to appreciate Canada. Canadians have been wonderfully slow themselves to realize the great resources of their country. Our cousins of the motherland, even now, assume an attitude of superiority toward the "colonists," not realizing the favorable conditions under which, those of their own blood are placed at this side of the Atlantic. But a more remarkable state of affairs exists at present regarding the writers of this country. English reviewers have, for some years, called attention to the high class of poetic work that has emanated from our poets, and yet the reading public of Canada has hardly awakened to realize that this country could possibly produce men of genius. The Canadian poet who has received, perhaps, the highest encomiums at the hands of these authorities, is Frederick George Scott, who was born in Montreal in 1861, the son of Dr. W. E. Scott, who was for nearly forty years Professor of Anatomy at McGill. The poet was educated at the McTavish St. School, McGill and Lennoxville; took his degree in arts, and afterwards attended King's College, London, England, for a course in theology. Appointed rector of Drummondville parish, Quebec, in 1887, he became curate of St. Matthew's, Quebec City, in 1896, and rector of that parish in 1899, where he still continues in a church work for which he seems particularly suited.

Mr. Scott has issued "A Soul's Quest, and Other Poems," "My Lattice, and Other Poems," "The Unnamed Lake, and Other Poems," and is at present collecting from his more recent writings for another volume. Everything he writes contains a strong human interest, arouses and elevates.

Just as a sample of this poet's

power, I should like to call attention to one of his beautiful sonnets. But first let me ask you to consider the qualities in a writer that entertain. Just as the painter throws the mountain into greater relief by the accompanying valley, so the playwright presents together a traitorous Iago and a confiding Othello; and the novelist the hypocrite Pecksniff and the simple, unsuspecting and noble Tom Pinch. But the delicate touch of the poet has in it the masterwork of all art. As you read the following lines, watch the natural flow of language, with never a straining effort at effect; watch the apparent artless and easy description of a most natural scene and simple incident, while we are enveloped in the grandest sublimity of the creation of God; watch, especially, the strength and happy arrangement of the contrasting pictures:

"I rose at midnight and beheld the sky
Sown thick with stars like grains of
golden sand
That God had scattered loosely from
His hand
Upon the floorways of His House on
High:
And straight I pictured to my spirit's
eye
The giant worlds—their course by wis-
dom planned,
The weary wastes—the gulfs no sight
hath scanned
And endless time forever passing by.
Then filled with wonder, and a secret
dread,
I crept to where my child lay fast
asleep,
With chubby arm beneath his golden
head.
What cared I then for all the stars
above?
One little face shut out the boundless
deep—
One little heart revealed the Heaven of
Love."

One could wish that the genius who penned that picture would devote his whole time to literature; yet, the Reverend Frederick George Scott is apparently so wrapped up in the duties of his parish work (an exceptional parish in many respects, for which few, if any, would be as well qualified) that he could not be tempted to leave it for even what might appear to be a more congenial avocation. No visionary, long-haired "professor"; no unpractical, inconsistent, unbalanced cynic, drawing cheap notoriety to himself by eccentricities; no advocate of a wider latitude of immorality, which traits have weakened and disgraced too many in the profession of letters, this exemplary poet is liberal in his theological views, sincere in his family relations, and his work is a reflex of himself, his writings a revelation of his own soul. The happy influence of an amiable conjugal partner in the person of Amy, daughter of the late George Brooks, of Barnet, England, whom he married in 1887, and the domestic responsibility of half a dozen bright and healthy children, have pervaded many a line that will, no doubt, be read more and more widely by the people of this country as we get better acquainted with our own Canadian literature. F. L.

The History of the Rothschilds.

No matter how little of the mercenary spirit one may possess, one is invariably interested in the career of the financial kings of the world, and few there are who will not stop to read any incident told of Rocke-



Baron Rothschild.
(Of the London Branch.)

feller or Carnegie, J. Ogden Armour or the Rothschilds. In the Rothschilds, particularly, is one likely to be interested, since their history has so much of the history of stirring European times interwoven with it as to lend to it the glamor of a romance not wholly dependent upon overflowing coffers.

Away back in the seventeen hundreds there was in the Jewish Lane, in Frankfort-on-Main, a little, dingy curiosity shop, over whose counters an old Jew dealt out odds-and-ends to tourists and others from whom he might thus seduce a good big profit. The name of the Jew was Amschel, but because he had a red shield over his door as a sign, he was called Rothschild or Redshield. This old Jew had sons who were also known as Rothschilds, and to one of them, Mayer, is due the credit of having laid for the Rothschilds the foundation of the fortune which has in past times enabled them, almost, to shake Europe or to calm it at will. The father wished Mayer to be a rabbi, but he preferred to marry and enter upon a business career. In 1770 he married a pretty Jewess, Gudula Schnappe, and began to speculate, and under his skillful administration the little shop soon became a considerable dry goods house, with agents in England and the chief cities of the continent. At the same time a banking and commission business, established as a side-line, before long began to draw the attention of many moneyed men to the shrewd Jew.

At last the big Napoleonic war broke out. "It's an ill wind that blows nobody good," and while men were throwing away their all, and bleeding and dying for the sake of the little Corsican, the little shop was blown right into the Rothschild lap. It came in the form of \$5,000,000, which the Landgrave of Hesse besought him to take charge of, lest it should fall in the path of the Napoleonic cyclone. Rothschild knew an apple when he saw it,

and he straightway had the \$5,000,000 transported by mule back to the coast, thence on to Manchester, England, where his son Nathan was established as agent. Thereafter cannons might boom and the battle smoke go up as black as it would; even the war afforded an opportunity of money, more money, and the Landgrave's fortune was made the basis on which the huge structure of gold and bank notes was built.

Nathan went to London. Like son of a like father, he, too, possessed the Midas touch, even to a stronger, keener degree. When the big guns roared about Waterloo there was some danger that the Rothschilds might lose, for were not their interests staked largely on the Allies? It is interesting to speculate what this London Rothschild would have done had Napoleon won at that battle. What he did, since Wellington won, is an old story. At no time in his life, perhaps, were the keen Rothschild brains more exercised. Crossing to Waterloo, Nathan took up his stand with the Allies, with dollars in his heart, instead of patriotic heart-beats. Upon the first day of the great fight by Ardenne, came only disaster. There were other financiers and reporters on the field, and these immediately hastened home with the news that once more the Imperial Eagle had spread his wings to the sun. But the Rothschild stayed on. Why, we do not know; it would almost seem that Napoleon's little red man had, on this eventful eve, forsaken him to flee to the anxious Jew. The cannons roared again; Blucher appeared; and the eagles lay drabbed in the mud.

Now was Rothschild's opportunity. No telegraph, no cable—what could travel faster than he? Driving like mad to the coast, he paid a fisherman 5,000 francs to take him across as rough a water as ever fisherman or financier faced. From there, like mad again to London, driving post-haste over the muddy roads. All was excitement on the Stock Exchange, for rumors of Wellington's defeat had come. The Rothschild, with his millions staked on the Allies, slouched in, mud-splashed, wearied, dejection personified, and stood there. What further confirmation was needed? Stockholders became crazed, and sold at anything to get rid of the stock they held, and all the while Rothschild's agents, acting under his orders, bought steadily, persistently. By the time the true news of the battle reached England a thousand men tore their hair, and the crafty Jew's coffers bulged out anew. This is only a sample of the Rothschild dealings.

When Mayer Amschel died he called his five sons about him and enjoined them to hold together, to intermarry, and to be good to their mother. All five were born financiers, and they carried out his instructions to the letter. As Jews, and so supposed to be of no nation, and thus partial to none, they were entrusted with the business of rich men, princes and sovereigns over all Europe, and soon obtained a power by virtue of which they were consulted in every great undertaking of war or peace on the continent. It is on record that Nathan Rothschild once stopped the outbreak of a war

by declaring that he would not furnish the funds. Had there been profit for him in it, doubtless, the funds would have been forthcoming. All five brothers were made barons by the Emperor of Austria, and upon the London branch was also conferred an English baronetcy, in recognition of various times upon which the Jewish financiers had been enabled to help the British treasury.

Of later years the Rothschilds have branched out somewhat. Several of the family have married into titled houses, and, choosing to give up the rigid counting-house life for ease and social pleasure, have been "paid off" with big fortunes. But to this day, every child born to a Rothschild undergoes a severe mercantile training, often at Vienna, where the strongest branch of the house is. If he shows financial talent he is promoted as rapidly as he deserves; if not, he also is paid off with a fortune. At present there is no Rothschild so brilliant—if brilliant it may be called—as was old Nathan Mayer; yet, as has been remarked by more than one student of present-day social conditions, it is not beyond the bounds of possibility that from this old Jewish stock there may yet arise a financier before whom the money magnates of the New World may tremble.

John Knox Preaching Before Mary Queen of Scots.

In our picture one can almost hear the bitter words of harsh denunciation from the lips of John Knox, the preacher, at whose grave the regent Morton testified that "he neither feared nor flattered any flesh," and who himself claimed for his vocation that it could "claim no honor from the condescension of princes." In answer to the petulant question of the Queen, "What have ye to do with my marriage; or what are ye within the realm?" Knox, both in the pulpit and outside it, replied: "A subject born within the same, albeit I neither be Earl, Lord, nor Baron. Yea, Madam, to me it appertains no less than it does to any member of the nobility, to forewarn of such things as may hurt it; for both my vocation and conscience crave plainness of me."

From his "preaching place" he said: "Madam, in God's presence I speak; I never delighted in the weeping of any of God's creatures, but I must sustain your Majesty's tears, rather than I dare hurt my conscience, or betray my Commonwealth through my silence." Speaking of his pulpit utterances, Knox had said, "Let them call it imprecation or execration, as it pleases them. It has oftener than once stricken, and shall strike, in despite of man." Our illustration depicts one of the severe ordeals to which the misguided and unfortunate Queen of Scots had to submit at the unsparing hand of John Knox the preacher, three centuries ago.

H. A. B.

The Red Buds Start.

(By Miriam B. Jacobs.)

There's a red bud on the maple bough,
And a bird note in the air,
The grass shows green on the southern slopes,
And the skies are blue and fair.
For spring trips over the misty hills,
With a message of hope and cheer,
She waves her wand o'er the listening earth,
And the pale white flowers appear.
Rivulets run through the waking woods,
While an endless song they sing,
As they hasten to find in the laughing lake
An end to their wandering.
Daily the marvel of beauty grows,
The world is aflood with light,
And in the smile of the sun forgets
The cold of the winter's night.
There are red buds on the maple boughs,
And sweet bird notes in the air,
And the shine and shower together call
Forth the new life everywhere.



The Fruit of the Spirit is Love.

The fruit of the Spirit is love, joy, peace, longsuffering, kindness, goodness, faithfulness, meekness, temperance.—Gal. V. 22, 23, R. V.

"Gracious SPIRIT, HOLY GHOST,
Taught by Thee, we covet most
Of Thy gifts at Pentecost,
Holy, heavenly Love."

The Jewish Feast of the Passover had blossomed into the Christian Easter; then, after seven weeks had been fulfilled, the Feast of First fruits became a reality, for on that day the first fruits of the Christian harvest were gathered in: "The same day there were added unto them about three thousand souls."

That was indeed a great revival. Jerusalem was all excitement, multitudes crowded together, attracted by the outward signs of the Holy Spirit's Presence—the rushing, mighty wind, the tongues of fire, the wonderful gift of tongues. God had begun to fulfil the promise, spoken hundreds of years before: "I will pour out My Spirit upon all flesh; and your sons and your daughters shall prophesy, your old men shall dream dreams, your young men shall see visions."

That Pentecostal outpouring of the Spirit was so long ago, and we have heard about it so often, that it makes little impression on us. "But," some one may say, "the miraculous signs of the Holy Spirit's Presence are not needed now and are, therefore, withdrawn." Are they? Can we always be sure what is miraculous and what is not? When God sends plain answers to prayer through natural means—as He is continually doing—is not His interference in one sense miraculous? Solomon's wisdom was given in answer to his request, but does anyone fancy he gained it without hard and persistent study? Although miraculous, it came to him through natural means. Surely no one will venture to say that there are no outward signs of a special outpouring of the Holy Spirit in the great Welsh revival. The Torrey-Alexander Mission, which has stirred up

so much religious enthusiasm in England for more than a year, was worked up like other modern revivals in a modern businesslike way. Although tremendous in its effects, as far as one can see, it does not stand out in the same startling way as the spontaneous Welsh movement, which has apparently taken possession of the whole nation without any of the ordinary "working up." Without special missionaries, advertising or money, often without a preacher at all, the entire population of village after village suddenly rushed to the churches and acted as though the ordinary business of life—even necessary food and rest—were of no consequence, as compared with prayer and praise. This, of course, cannot go on long, but the "burning zeal of well on to a hundred thousand converts" is not a thing to be lightly ignored. There must be a cause to produce such an effect. Evan Roberts never hesitates to declare that he is only an instrument—only one of many—and that he never says a word without being convinced that the Holy Spirit is speaking through him. We read in the Acts of the Apostles: "The Holy Ghost said, Separate Me Barnabas and Saul for the work whereunto I have called them." Does He never separate men for special work now?

But I have wandered far from my text: "the fruit of the Spirit is Love." Love is not only the "greatest" Christian grace, it includes all the rest. Bishop Hall says that the first triplet—"love, joy, peace"—represent the soul's attitude towards God, the second triplet—"longsuffering, kindness, goodness"—characterize our relations with our neighbor, while the third triplet—"faithfulness, meekness, temperance"—belong more particularly to our own character. But they are all summed up in the great word "Love," which is not only "the greatest thing in the world," but also the greatest thing in the infinite universe, for "GOD IS LOVE." The two great commandments—love to God and our neighbor—cannot be separated. Joined together by God, no man is able to put them asunder, one cannot be real and true without the other. Now, do you

understand why I began by describing exciting revivals? It was in order to point a contrast. Great revivals—even the one in Jerusalem on the day of Pentecost—are certainly not intended for everyday use. We need not long for such signs of the Spirit as a rushing, mighty wind or tongues of fire—wild, ecstatic emotion or burning words of eloquence. When the Lord passed by Elijah, a great and strong wind rent the mountains, followed by an earthquake and a fire, but he knew that the Lord was not in these. Then came the "still small voice," which was at once recognized by the prophet as the Voice of God. When a man is filled with the Spirit he shows a far greater sign of that glorious indwelling than the gift of tongues or prophecy. His very presence is a benediction, joy and peace shine in his face, he is a true gentleman, kind and considerate to everybody, trusted by all his neighbors because he is worthy of trust. Where Love dwells happiness also makes her home; if Love be absent, no man, woman or child can be really happy in the grandest palace. One who has travelled in many lands—"mid pleasures and palaces"—will declare unhesitatingly that "there's no place like home." From the rest of the world he may win fame and admiration, his name may be constantly in the newspapers, but at home—"be it ever so humble"—he knows that long-trying affection is his portion. There he is really known, and the old friends who grasp his hand so heartily really care for the man himself, instead of just admiring him for what he has done. How delighted he is to see a home face in a foreign country. As Keble says:

"No distance breaks the tie of blood;
Brothers are brothers evermore;
Nor wrong, nor wrath of deadliest mood,
That magic may o'erpower;
Oft, ere the common source be known,
The kindred drops will claim their own,
And throbbing pulses silently
Move heart towards heart by sympathy.
So is it with true Christian hearts;
Their mutual share in Jesus' blood
An everlasting bond imparts
Of holiest brotherhood."

Brotherly love, though too often it may be hidden beneath outside rudeness which would never be shown to a stranger, is a possession which any king might covet. Love is the greatest gift even God can bestow, and the only one valuable enough for us to offer Him. St. Paul leaves no doubt about His acceptance of that alone, when he declares that tongues of men and of angels, prophecy, knowledge,



John Knox Preaching Before Mary Queen of Scots.

faith which can remove mountains, the sacrifice of everything, even of life itself, profit "nothing" without Love. Illingworth says that Love is "The intensest, mightiest, holiest thing we know," and surely he is right. Love drew God Himself down to suffer and to die, and the flame kindled by His great Love in the hearts of men draws them after Him still. Constrained by that mighty power, men in every age have deliberately turned their backs on earthly honor and happiness, feeling that they could not bear to pitch their tabernacles on the Mount of Transfiguration while their Master was leading them towards the Cross. When we pray for this great gift of Love, let us not shut our eyes to the cost. Are we prepared to drink His cup of suffering and to be baptized with His baptism of fire? Love and self-seeking are directly opposed: to choose one is to sacrifice the other. Let us count the cost of Love, and then bravely stretch out both hands for it. It may call for the sacrifice of life, but what is a loveless life worth?

Love includes all the Christian graces, so let us see to it that "joy, peace, longsuffering, kindness, goodness, faithfulness, meekness, and temperance" are not lacking in our daily home life. Because we "love our own the best" let us treat them at least as considerately, politely and kindly as if they were strangers. If we are rude and ungenerous in our own homes, keeping "company" manners and clothes only for strangers, then our brotherly love must be of a very poor quality indeed. If we are constantly worried and fearful, careful and troubled about many things, and unwilling to yield our will to God in small trials and in great, then our love to Him must be very weak too.

"Love is life's only sign."

Some love we all have—life would be simply unbearable without it—but this great fruit of the Spirit should be steadily improved by cultivation,—by prayer and service. If we walk with God day after day, our love to Him will grow more strong and beautiful: if we bear on our hearts the names of friends, neighbors and enemies, when we enter into the Holy Place, our love for them will deepen steadily. And, if Love glories in the high privilege of serving, so service in its turn feeds the flame of love. Home should be the dearest spot on earth, a temple so holy that even the old, shabby furniture is glorified. And a sacred spot it surely will be if Love reign there openly and triumphantly, revealing itself every day in the outward signs of bright looks, tender words and the "little kindnesses which most leave undone or despise."

HOPE.

What I Can Do Without.

"Twas a lonely little homestead, the home of pioneers,
On the wide and open prairie, where
passed my early years;
Sometimes abundant harvests with plenty
filled the bin,
And sometimes on the threshold hard
Times stood peering in;
Then serious discussions of ways and
means occurred,
To be finally concluded by my father's
cheery word,
"Whatever we may do without, whatever
we may get,
There's one thing that is certain, we can
do without a debt."

"Twas a bit of homely wisdom, with a
touch of honest pride,
Through good or evil fortune it was
never set aside;
Many summers, many winters, with their
shadows and their sun,
With their happy days and sad days, have
vanished one by one;
Time and Change, the unrelenting, swept
the little home away.
The open, lonesome prairie is a fruitful
field to-day,
But the voices of the homestead, I can
hear their echoes yet,
And what may come or not come, I can
do without a debt."

Teacher—"Your spelling is fresh! Why don't you look in the dictionary when you write your essays?" Pupils—"I do; but I can never find the word I'm looking for."



Essay Competition.

The prizewinners are: Class I.—Mary Potter, Montgomery, Assa., N.-W. T., and Leslie C. Wade, Surrey Centre, B. C. (aged 15). Class II.—Palmer Anderson, Bardo, Alta. (aged 13). Class III.—Bessie Allardyce, Cobairdie, Burnside, Man. (aged 10).

The competitors deserving honorable mention are as follows: Flossie Seabrook, Willie Smillie, Florence Duncalfe, Wilbur Potter, Myrtle Sinclair, Birdie Robb, Jessie McDonald, Bertha Barr, Ethel McConnell, Melvin Webb, Isabella Hannah, Luella Heise, Edna Groat, Grace Darling, Bertha Goodfellow, A. L. A. C. ("Memories of Billy" did not win a prize, because we had no story competition going on when it was sent in), Annie McGowan, Blanche Thornton, Endeavor, Fred Kingston, Clover-flower, Lloyd Leask, Constance Hutchison, Gracie Pinder, Luella Cassel, Maggie McDonald, and Minnie Hughes. These names are not necessarily in order of merit. Some of our young essayists seem to think Canada abounds in lions, tigers and other dangerous animals, and the girls evidently think that a shotgun is a suitable weapon with which to hunt them; the geography of one, at least, is rather mixed, and one, I am very sorry to say, sent in a poem by a well-known author, stating that she had composed it herself. She certainly could not expect honorable mention. Most of the Cornerites chose "A Narrow Escape" as their subject, although several gave many good reasons why the "Farmer's Advocate" should be classed as a first-rate farmer's paper.

COUSIN POROPIE.

A Narrow Escape.

(Written by Mary Potter, age 15.)
Although Canada is regarded by a large number of its inhabitants and others as a country where there are few dangers or fierce animals to harm people who dwell there, it has its dangers, which will be long remembered by some of the inhabitants.

One afternoon in the latter part of December, a young lad by the name of Jack —, some fifteen years of age, living in a small country town, and having a few days' vacation from school, left home to visit some friends a few miles out of town. He had a large dog at home, of which he was very fond, but for some unknown reasons left it at home while he made his trip.

When Jack was out about two miles from town he saw two prairie wolves, but did not think them at all dangerous, as they will never attack if not in packs or very hungry, and walked quietly on. These wolves were soon joined by five more, who attacked him. He fought them off as best he could, but they were tearing his clothes to pieces when his dog Rob came up, having scented his tracks and followed. Rob, however, soon frightened them off, killing one, and the rest were glad to escape.

Jack then retraced his steps back to town, carrying a dead wolf and petting his faithful dog, to tell his many friends his first great adventure with wild animals—a very proud but a much raggeder boy than had left two hours previous. He was not hurt much, but was pretty much scratched up.

Jack will probably take his dog with him next time he makes a trip into the country, as it might not happen along just in time to save his life again. MARY POTTER, Montgomery, Assa., N.-W. T.

A Narrow Escape.

Tom Jackson, a young lad eighteen years of age, was out hunting with his chum, Jack Benton, when they came to a deep ravine with almost perpendicular sides. There was no way by which to cross, so they decided to go in opposite directions along the bank and meet at their starting-point at four o'clock.

Jack returned with half a dozen partridges, but there was no sign of Tom. After waiting for an hour, Jack started out to hunt for him.

Now, Tom had followed the ravine for about three miles when he came to where a tree had fallen across. He had not seen any game, so he decided to go across. He had not been over long when he started two deer. He followed them until it was getting well on in the afternoon and then turned back, but by the time he found the crossing-place it was nearly six o'clock. He had just got over when he heard a growl, and saw a large panther ready to spring. He fired, but only wounded it. The enraged beast sprang at him, and knocked him down before he could fire again. Jack was only a short distance away, and when he heard the shot he hurried on, and, seeing how things were, shot the panther. Tom's arm and shoulder were pretty badly torn, but they got home all right. That was the narrowest escape Tom ever had, and he never forgot about it.

LESLIE C. WADE (aged 15).
Surrey Centre, B. C.

A Narrow Escape.

It was four o'clock in the afternoon of a dull, cloudy day in October. As I had no special work to perform, I thought that I would take a little hunting trip in the woods near my home. I took my rifle, and calling my dog Tige, I started off, not intending to go far. I soon reached an open area in the woods, and my dog lay down on a fresh rabbit-track. Presently I heard a growl and a crashing of dry branches. Directly ahead of me I saw a huge black bear with two young cubs. I was terror-stricken and dumb with fright, and casting one glance at the fierce brute, I dashed for the nearest tree. I stumbled and fell, and expected every instant that her huge paw would crush my head. But the blow never came. Suddenly I heard a confused noise of barking, snarling and growling, and looking up I beheld my faithful dog engaged in a fierce fight with the bear. It was a furious conflict while it lasted. The dog was already bleeding from several wounds, but still continuing to attack the bear. But suddenly he received a crushing blow, and dropped to rise no more. I was now at the mercy of the brute, but it seemed to have got enough, for it lurked off and I saw it no more. I now turned my attention to my poor dog, who was lying lifeless where he fell. I buried him on the spot, and later I erected a headstone over his grave in memory of his courage and faithfulness.

PALMER ANDERSON,
Bardo, Alta. (Aged 13.)

A Narrow Escape.

Once upon a time there was an old man and his little grandchild. They were very poor, and had very little to eat. One day they were roaming about in the wilds of Canada when they heard a low growl, and out bounded a large wolf. Edith (for that was the name of the little girl) fainted with fear; her grandfather caught her in his arms and ran for a tree, the wolf after him. But he succeeded in getting up one, and seated himself on a branch. The wolf stood, his eyes gleaming with rage at having

missed his prey. The child soon came to her senses again, and asked her grandfather where she was, and he told her they were up in a tree keeping out of the way of the wolf. After about an hour or so the barking of dogs was heard, and the wolf became uneasy. Suddenly some wolf-hounds appeared in sight and rushed upon the wolf and killed it. The men who were with the hounds were some friends of the old man. They had gone out to hunt that day and were returning with game. They offered the grandfather and Edith a home, which they accepted and lived happy ever after.

BESSIE ALLARDYCE,
(Aged 10).
Cobairdie, Burnside, Man.

For Every Day.

How to live comfortably with one's neighbors—that is the problem; to avoid the knocks and frictions which draw lines in men's faces and too often contract their souls. It is paradoxical, but true, that the larger the soul becomes, the more room it creates for itself—a margin of quietness in which it remains untouched by petty jealousies and hurts. By the practice of charity and unselfishness a life builds for itself "more stately mansions" wherein it may dwell in peace.

A song in one's heart, a smile upon one's lips, a cheery, wholesome message of goodwill on one's tongue, are wonderful helps to all kinds of people. There are so many burdens of sorrow and care and poverty and sin; so many doubting, discouraged, tempted hearts. To comfort and to make strong, to lift up and to bless—are these not missions worth while? Try it, friend, and prove how truly your own heart and mind are cheered and made brave by your very endeavor to carry sunshine into dark places.

A recent issue of the Cornhill Magazine contained a poem by Mr. Frank Sidwick, reminiscent of Thackeray's "Cane-bottomed Chair," and with the same rare literary flavor. It is entitled, "When My Ship Comes In," and is descriptive of what kind of a house the poet would choose. Here is an extract:

One thing I'll have that's full of shelves
For nothing but books; and the books
themselves
Shall be of the sort that a man will
choose
If he loves that good old word PERUSE;
The kind of book that you open by
chance
To browse on the page with a leisurely
glance,
Certain of finding something new,
Although you have read it ten times
through.
I don't mean books like Punch in series,
Or all the volumes of Notes and Queries;
But those wherein, without effort, your
eyes
Fall where the favorite passage lies,
Knowing the page and exact position—
It's never the same in another edition!
The Vicar of Wakefield, and Evelina,
Ella, The Egoist, Emma, Catriona,
Fuller and Mallory, Westward Ho!
And the wonderful story of Daniel Defoe,
And Isaac Walton, and Gilbert White,
And plays and poetry left and right!
No glass doors, and no "fumed oak";
Plain deal, and fumed by myself with
smoke;
Stained, if at all, to a pleasant brown,
With ledges and places for putting books
down.
And there I'll sit by a blazing log
With a sweet old briar and glass of grog,
And read my Pickwick, Pendennis, Huck
Finn,
Cosily there—when my ship comes in.

"There was a certain colonel who in the middle of a campaign was seized with a sudden ardor about hygiene. He ordered that all his men change their shirts at once.

"This order was duly carried out except in the case of one company where the privates' wardrobes had been pitifully depleted. The captain of this company was informed that none of his men could change their shirts, since they had only one apiece.

"The colonel hesitated a moment, then said, firmly, 'Orders must be obeyed. Let the men change shirts with each other.'"

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of buying tea is not to take chances on quality and value, but to insist on getting

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Ceylon tea, as it saves worry and ensures satisfaction. Black, Mixed or Natural Green, 25c., 30c., 40c., 50c. and 60c. per lb. By all Grocers. Sold only in sealed lead packets.

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Contains 5 pairs of Curtains, made specially for this parcel: 2 pairs alike Dining-room Curtains, choice design from Real Lace, 3 1/2 yds. long, 60 ins. wide; 1 pair superb Drawing-room Curtains, design from old Ro e Point Lace, 4 yds long 2 yds. wide; 2 pairs alike Pretty Bedroom Curtains, 3 yds. long. Extra if desired. Customers throughout Empire testify to value and reliability. Send Post Office Order for \$6.30. The Parcel well packed in Oilcloth will be sent by post, direct to your address, by next Mail.

COLONIALS, save 50 per cent, and import your own goods, British made and reliable. Lace Curtains, Laces, Blouses, Linens, Hosiery, Ladies' and Gents' Tailoring, Boots, Shoes, Gaiters, Furniture, Suites, Bedsteads, Carpets, etc. Price Mailed. Toronto 1905. Chicago 1905. Apply at once for Price Lists at the office of this paper. If you wish the list included, send direct to S. PEACH & SONS, Manufacturers, Box 665, NOTTINGHAM, England. Est. 1857.



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G. W. DONALD, Secretary.

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The Second Mrs. Jim.

(Continued.)

IV.

Under the heading, "Managin' Jim," we get some half-comical, half-philosophical utterances, which may or may not serve as helpful hints to puzzled wives elsewhere. The keynote of her management was her apparent falling into line with notions and propositions which did not commend themselves to her, but which Mrs. Jim was wise enough to know would crystallize into action if they met with direct opposition. "Tain't just the things that a man tells a woman, that she knows. If it was, we'd all be the biggest know-nothings' you ever see." In another place she remarks, "Henpeckin' him? Not much! An' besides, if a man is henpecked right, he don't know it, an' thinks it's fun. . . . I tell you it pays to start right when you're gettin' married. That's one trouble with gettin' married young, 'specially for girls. They don't know what they want, nor how to get it if they do. But you take a middle-aged woman an' let her get married, an' she's a mighty poor stick if she don't know what she wants, an' gets it. . . . I'll admit there's one advantage in gettin' married young. If you're going to be happy, you'll be happy lots longer, but then, if you ain't going to be happy, you've got that much more time to be miserable in."

It may not be given to every woman to have as well balanced a brain and as clearly defined a purpose, combined with goodness of heart and high principle, as were the distinguishing characteristics of the second Mrs. Jim, but it is possible that the story of some of her doings and sayings may have a significance, if not a positive helpfulness, for some of our readers in the farm homes where our "Farmer's Advocate" is a welcome guest, and in which, let us hope, there may be found many such true helpmeets to one another as were Jim and his second wife. Reading between the lines, it is easy to understand that a fair share of the credit of the successful outcome of that "home rule" was due to Jim himself, who was sensible enough to appreciate the excellent qualifications of the woman for whose consent to marry him and to mother his children, he had waited so long. "Jim and I understood just how things was going to be run before I even set the day," remarked Mrs. Jim. "I told him that when I said what he should plant on the 'hill forty,' or the 'corner eighty,' he could tell me how to run things in the house, an' not before. And I made up my mind that I wasn't going to depend on the egg an' butter money. That was goin' into the common fund, and the household expenses was comin' out of that same fund. Oh, it was new to Jim, but you know there's two times to get a man to agree to things, an' of course, after he's agreed to 'em, it's a poor stick of a woman that can't make him hold to 'em. One of the two times is when he's just married. That does for young married men. The other time's when he's courtin'. That's the time to get things out of widowers. . . . There's another trouble with gettin' married young. The poor girls know how hard up they be, an' that both of 'em have to skimp an' save all they can, an' so the fool wife does the housework, an' makes the butter, an' tends the garden, an' maybe feeds the pigs, an' always gathers the eggs, an' takes care of the chickens and turkeys, an' picks the fruit, an' cans it, an' maybe helps to milk, an' cut an' husks the corn—all so's to save money; and how much does her husband skimp himself. He has a hired man to help him, and for him, too, the wife has to do the cooking and washing. The husband has money to spend when he goes to town; but his wife—how much has she? Just what comes from the butter and eggs. And when the children come, there's her clo's and her own, an'

dozens of other things—all to come out of that egg and butter money, whilst her man just gets into the habit of thinkin' that that's all she needs."

Amongst her tactful efforts to promote the welfare of her boys, was that of getting into touch with the school teacher. "I wanted to know," she said, "what kind of a man he was. It makes a lot of difference how the boys has to be treated at home, if you know how they're treated at school, and it pays for folks to know the teachers they get for their youngsters. . . . I'd rather have a common ordinary man that's real wide awake and up to all the young one's meanness, than any of your good, meek, half-asleep kind, that don't know how to handle the boys, an' thinks they're all as good as he is. Boys will get more real meanness from trying to get ahead of this kind than they'll catch from one of the other kind." Acting upon these opinions, Jim's wife made the teacher welcome from time to time, and without showing her hand, brought about a helpful relationship between master and pupils, which extended to several other lads who shared in the companionship. "Our Sunday field days was just fine," records the step-mother. "I learned a lot about weeds in winter, an' birds in winter, an' mice, an' all such things, an' of boys all the time; just trampin' round with our Club, etc."

We need not be surprised to learn in the closing chapters that Jim was brought to give way in the matter of letting the lad, Frankie, follow his bent and becoming what he longed to be—a doctor. The boy, according to the home verdict, "Never did seem to do anything right in the field, but you let him doctor a sick chicken or a calf, an' he's perfect'ly happy;" whilst Jimmie, who was to have the farm, was, most skilfully and unknowingly to himself, piloted out of a love affair which would have certainly ended disastrously, and landed safely and happily into the matrimonial harbor. "I tell you," says Mrs. Jim, "the best way to cure love-sick young folks is just to plant 'em side by side, an' let 'em see each other, in fair weather, an' foul weather, sun an' rain, an' if they can stand that for a few days, they can stand it for a lifetime." With which final quotation I will close my little series, only assuring you that my extracts have not half exhausted the record of the wit or wisdom of the second Mrs. Jim.

H. A. BOOMER.

Humorous.

THREE KINDS OF PIE.

"I was eating my supper the other evening in a little rural hotel, when a neatly-dressed country girl, who was waiting on the table, came up and asked if I would have dessert. I inquired what kind of dessert she had, and she replied: "'We have pie.'"

"You may bring me a piece of pie," I said, and she inquired:

"What kind do you want?"

"What kinds have you?"

"We have three kinds—open-top, cross-barred and kivered—but they are all apple," she said, apparently very proud of having so wide a variety for me to select from."

A fond mother and her babe were in a railway carriage, and baby was exercising its lungs (full orchestra).

Frate Passenger—Why don't you stop that kid howling? Give it a spanking. It's a nuisance, and you ought to stop it!

Fond Mother—I can't. It's hungry, and I don't believe in thrashing a child on an empty stomach.

Frate Passenger—Well, turn it over, then!

Zealous young housekeepers sometimes make the mistake of cleaning paint with sand soap. Don't! It only scratches the paint. The other soap will do the work.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE

THE LEAVENWORTH CASE.

By A. K. Green.

CHAPTER XXIX.—Continued.

I found myself in a large bed-room, evidently the one occupied by Mrs. Belden, and I passed on to the door leading into the room marked with a cross in the plan drawn for me by Q. It was a rough affair, made of pine boards and rudely painted, as though it had been put up in a hurry long after the rest of the house was finished. Pausing before it, I listened. All was still. Raising the latch, I endeavored to enter. The door was locked. Pausing again, I bent my ear to the key-hole. The grave itself could not have been stiller. Suddenly I remembered that in the plan Q had given me, I had seen another door leading into this same room from the one on the opposite side of the hall. Going hastily around to it, I tried it with my hand. But this was also fastened. Convinced at last that nothing was left but force, I said aloud, with an accent of severity:

"Hannah Chester, you are discovered; if you do not open the door, we shall be obliged to break it down."

Still no reply.

Going back a step, I threw my whole weight against the door. It creaked ominously, but still resisted. Stopping only long enough to be sure no movement had taken place within, I pressed against it once more, when it flew from its hinges, and I fell forward into a room so stifling, chill and dark, that I paused for a moment to collect my scattered senses. In another moment the pallor and fixity of the pretty Irish face staring upon me from amidst the tumbled clothes of a bed, struck me with so death-like a chill, that had it not been for that one instant of preparation, I should have been seriously dismayed. As it was, I could not prevent a feeling of sickly apprehension from seizing me, as I turned toward the silent figure stretched so near, and observed with what marble-like repose it lay beneath the patchwork quilt, asking myself if sleep could be indeed so like death in its appearance. For that it was a sleeping woman I beheld I did not seriously doubt.

And yet so white was the brow turned up to the bare beams of the unfinished wall above her, so glassy the look of the half-opened eyes, so motionless the arm lying half under, half over the edge of the coverlid, that it was impossible not to shrink from contact with a creature so dire in her unconsciousness. But contact seemed to be necessary. Nerving myself, therefore, I stooped and lifted the hand which lay with its tell-tale scar mockingly uppermost. But at the first touch of her hand on mine, an unspeakable horror thrilled me. It was not only icy cold, but stiff. Bending once more, I listened at the lips. Not a breath, not a stir. Shocked to the core, I made one final effort. Tearing down the clothes, I laid my hand upon her heart. It was pulseless as stone.

CHAPTER XXX.

Burned Paper.

The awful shock of this discovery, the sudden downfall which it brought of all the plans based upon this woman's expected testimony; and worst and most terrific of all, the dread coincidence of this sudden death with the exigency in which the guilty party, whoever it was, was supposed to be at that hour, were much too appalling for instant action.

But gradually as I gazed, the look of expectation which I perceived hovering about the wistful mouth and half-open lids, attracted me, and I bent above her as a friend might do, asking myself if she were quite dead, and whether or not immediate medical assistance would be of any avail. But the more closely I looked, the more certain I became that she had been dead for some hours, and leaving her side, I went into the next room, threw up the window, and fastened to the blind the red handkerchief which I had taken the precaution to bring with me.

Instantly a young man whom I was fain to believe was Q emerged from the tinsmith's house, and approached that in which I was.

Observing him cast a hurried glance in my direction, I crossed the floor and

stood awaiting him at the head of the stairs.

"Well?" he whispered, "have you seen her?"

"Yes," I returned bitterly, "I have seen her."

He hurriedly mounted to my side. "And she has confessed?"

"Come," I said, "and see for yourself!" And leading him to the little room I had just left, I pointed to the silent form lying within. "You told me I should find Hannah here; but you did not tell me I should find her thus."

"Great heaven!" he cried with a start, "not dead?"

"Yes," I said, "dead."

The sight seemed to convince him. Calming down, he stood gazing at her with a very strange expression upon his face. Suddenly he moved and began quietly turning over the clothes that were lying on the floor.

"What are you doing?" I asked.

"What are you looking for?"

"I am looking for the bit of paper from which I saw her take what I supposed to be a dose of medicine last night. Oh, here it is," he cried, lifting a morsel of paper.

"Let me see!" I anxiously exclaimed.

He handed me the paper, on the inner surface of which I could dimly discern the traces of an impalpable white powder.

"This is important," I declared, carefully folding the paper together. "If there is enough of this powder remaining to show that the contents of this paper were poisonous, a case of deliberate homicide is made evident."

If a man's wife is a good baker, nothing

but the best flour is good enough for her. There can be no greater extravagance than the use of inferior flour.

Winchester Springs, Feb. 27th, 05.

"I read about Royal Household Flour which is purified by electricity. I also read about the woman paying freight 25 miles before she would be without it. Royal Household was not sold in our town, I was asking about it and my grocer told me to wait a day or two and he would get some, and I am glad I did so. My wife is a good baker and made good bread out of other flours, but what she has now made out of Royal Household is so far ahead that I would be willing to pay freight fifty miles instead of twenty-five, rather than go without it. There is no flour 'just as good' as Royal Household."

(Signed) JOHN HENDERSON.

Now, is there a single woman in the whole country who, after reading what Mr. Henderson says, will not at once send for the Royal Household recipes and give Royal Household Flour a trial. Mention this paper and address

THE OGILVIE FLOUR MILLS CO., LIMITED,
MONTREAL.

"I am not so sure of that," he retorted. "If I am any judge of countenances, this girl had no more idea she was taking poison than I had. She looked not only bright, but gay. If Mrs. Belden gave her that dose to take, telling her it was medicine—"

"That is something which yet remains to be learned, also whether the dose, as you call it, was poison or not. It may be she died of heart disease."

He simply shrugged his shoulders and pointed first at the plate of breakfast left on the chair, and secondly at the broken-down door.

"Yes," I said, "Mrs. Belden has been in here this morning, and Mrs. Belden locked the door when she went out, but that proves nothing beyond her belief in the girl's hearty condition."

"A belief which that white face on its tumbled pillow did not seem to shake?"

"Perhaps in her haste she may not have looked at the girl."

"I don't want to suspect anything wrong, but it is a coincidence!"

"Well," said I, "there is no use in our standing here busying ourselves with conjectures."

"What are you going to do?" asked he.

"If this girl did come to her death by some foul play, it is our business to find it out."

"That must be left for the coroner to do. It has now passed out of our hands."

"I know; but we can at least take full note of the room before throwing the affair into the hands of strangers."

"I have looked at the room. I am only afraid I can never forget it."

"And the body? Have you noticed its position? the lay of the bedclothes around it? the lack there of all signs of struggle or fear? the repose of the countenance? the easy fall of the hands? Then the clothes hanging on the wall? Do you see? a calico dress, a shawl—not the one in which she was believed to have run away, but an old black one, probably Mrs. Belden's. Then this chest, containing a few underclothes marked with the name of the lady of the house, but smaller than any she ever wore; made for Hannah, you observe, and marked with her own name. And then these other clothes lying on the floor, all new, all marked in the same way. Then this—Hallo! look here."

Going over to where he stood, a wash-bowl half full of burned paper met my eye.

"Can it be that it was a suicide after all? She has evidently destroyed something here which she didn't wish anyone to see. Who knows but what that was a confession! Mr. Gryce will never forgive me for it—never. He will say I ought to have known that it was a suspicious circumstance, this taking of a dose of medicine at the very moment detection stood at her back."

(To be continued.)

"Ah, doctor, glad to meet you," said Mr. Forsythe. "I wish you'd drop around to the house at about nine this evening."

"None of the children sick, I hope?"

"No, but they will be when they get back from their grandmother's. They're there for supper."

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No Cut-off Vamps

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AMHERST BRAND SHOES

Men and women who are looking for a line of solid leather shoes, for themselves or family, with long vamps, not cut off where they join the tip, should ask for Amherst Home-made Solid Leather Shoes. None genuine unless name,

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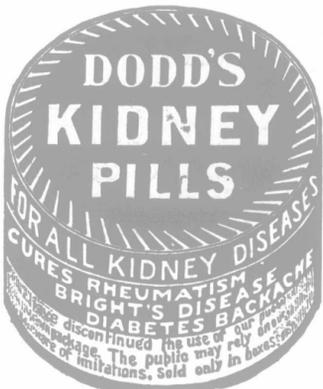
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I WOULD LIKE EVERY WOMAN to write for our New Styles and Samples of \$4.50 to \$12 Suits in cloth, silk, linen and lustrous; also raincoats, skirts and waists. Manager SOUTHCOTT SUIT CO. London, Can. Dept. 20. Send for samples of shirt-waist suits in lawns, linen, etc., from \$2.50 up.

"I am afraid you are one of those people who look down on toil."
"Not at all," answered the luxurious youth. "My great-grandfather worked hard and invested his money, and we are quite pleased with him for doing so."



DODD'S KIDNEY PILLS
FOR ALL KIDNEY DISEASES
CURES RHEUMATISM BRIGHT'S DISEASE DIABETES BACKACHE

THE SINGLE NOOK CHATS

"Washing" in Summer.

Possibly the greatest bugbear of work to the farm woman during the summer is the weekly washing. Washing isn't easy work at the best of times, and the big clothes basket seems to fill up so quickly and so fearfully during the hot weather, when it is simply impossible to wear dark woollen gowns, or to "save the washing" in any possible way. Realizing just what this means on a farm, I have made a business during the past fortnight of collecting hints on how the work may be lessened, and I hope that some of our Ingle folk may find the result of my search helpful.

For an easy way of washing we are indebted to a writer in Woman's Home Companion, who says that she simply piles her white clothes (while dry) into a big boiler of cold water, made very soapy, and with a tablespoonful of borax or ammonia added to it. She lets the whole come to a boil and boil 20 minutes; then she takes the clothes out, rubs them out lightly, rinses and blues. If the clothes were not very dirty—and, by the way, it never pays to let clothes get very dirty—we should think this might be a very good way, well worth trying. The writer emphasizes the point that the clothes must be put in while the water is cold—not hot.

For washing white silk, which makes such cool blouses for summer wear, and possesses the advantage over cotton of not crinkling readily, three methods have been discovered: (1) Dissolve some powdered borax in your hot washing water and let cool. Put the articles in and steep about half an hour, then wash in a lather of pure white soap and warm water. Wash between the hands, not on a board; rinse well, first in blue-water, then in clear water; press out (not wring); dry partially, and iron on the wrong side. (2) To "dry clean," rub the silk all over with a mixture made of three parts fine starch and one part fine salt; shake out, rub again with the starch alone, roll up and leave 24 hours, then shake and brush out. (3) Cream and colored silks may be cleaned beautifully by putting in a tightly-closed jar of gasoline over night. In the morning rub out lightly and hang outside to dry. When perfectly dry press with a warm iron on the wrong side. As gasoline is both inflammable and explosive, it must on no account be used in a room where there is a fire or light of any description. Even the heat of the sun has been known to make it explode. Do the washing in a cool room with the windows open and there will be no danger. Ribbons and white kid gloves may be cleaned in the same way. If much soiled, rinse in clean gasoline a second time.

By the way, how many of you have tried fels-naphtha soap? If you haven't, just try it during the hot weather, when you don't feel like working over a hot boiler. It is used for washing white clothes, and no boiling is necessary—just cold or lukewarm water from beginning to end.

The trouble usually experienced in washing colored prints, muslins, etc., would, as a rule, vanish like the Jungfrau giant if the following precautions were observed: Wash in clean, lukewarm water which has been made very soapy with white soap, and has had a tablespoonful of ox-gall added to it. Do not rub soap on the articles. Rinse through two waters and dry in the shade. When rinsing pink, green, mauve, etc., add a cupful of vinegar to the rinsing water. If there be

any white in the material a slight bluing should be given; for navy-blue and black materials the blue water should be made very dark. Soaking colored prints in strong salt water and drying without wringing will, it is said, prevent fading; this should be done before the articles are washed. For starching black and dark-colored wash-goods, the following methods are recommended: (1) Simply dip in milk which has been made blue with ordinary bluing. (2) Dissolve one ounce gum Arabic in cold water and pour over it one quart boiling water; double the quantities if necessary. Dip the articles in this, dry, sprinkle slightly, roll up, and when evenly damp iron on the wrong side with an iron which is not too hot.

A good cold starch for collars, shirt fronts, etc., is made as follows: Dissolve one tablespoonful starch in half pint of water; add four drops turpentine and as much borax as will lie on a ten-cent piece, dissolved in a tablespoonful of boiling water.

I shall close by adding a hint, not for Mrs. or Miss Pernickety, but for the overworked farm women, whose weary bones surely need some consideration. After washing print gowns for morning wear, towels, sheets, pillow-cases, etc., rinse well and hang on the line dripping wet, without wringing even a little bit. When dry you will find them quite smooth. Simply fold neatly, and put away without ironing.

DAME DURDEN.

Hints on Housekeeping.

Try to get your work done in the forenoon so you will not have to drudge all day. Never go slovenly about your work; always try to appear tidy, and don't go about with your head like a haystack on a windy day. Never borrow from your neighbor. Do without things until you can get them from the store. Pay for what you get. Never run a bill. "Stint" yourself until you get a little ahead. Have a box for coppers and five-cent pieces, and you will never be without collection; also have a ten-cent bank and keep putting some into it once in a while, and sometime when you are short it will come in handy. Don't have to correct your children before strangers; teach them so that a look will suffice when they are doing wrong. There is no need of much whipping. Be firm with them; show them that you mean what you say. Don't put away their playthings or their clothes when they come in; teach them to do it themselves and it will save you a lot of trouble. A place for everything and everything in its place saves time and trouble. Don't waste anything; and, last of all, don't forget to thank your Heavenly Father, night and morning, for His care over you and yours. MRS. W. T.

A Lamp Closet.

Dear Dame Durden.—One of the greatest helps in having the home go smoothly is my lamp closet. In one corner of the kitchen, I have a little cupboard, where all the lamps are carried each morning. There I keep cloths, soap, a lamp basin, extra wicks; in fact, all things one needs for the care of the lamps. As soon as the breakfast dishes are done, the lamps are all cleaned, filled, and put in place. Nothing is so gloomy as a poorly-cared-for lamp, and many a man sits in a corner with his pipe, who would read by the table if he found a bright light and his paper or book ready after tea.

Our ten-year-old boy took all the care of six lamps all last winter, and in a friend's family, where they have copied my lamp closet, two little girls take turns week about in caring for the lamps, while the other week they darn certain parts of the family hosiery. C. D. Assa.

The Veterinary Association of Manitoba.

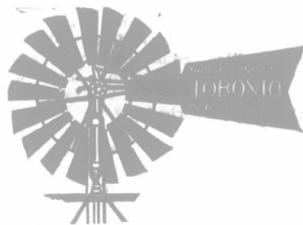
Under the authority of Secs. 18, 19, 20, 22 and 26 of the Veterinary Association Act, 1890 (33 Vic., Chap. 60), the following persons only are entitled to practice as Veterinary Surgeons in the Province of Manitoba, or to collect fees for services rendered as such:—

Baker, G. P.	Russell
Barry, W. H.	Cartwright.
Brand, F. J.	Wawanesa.
Brocken, G. E.	Clan William.
Clark, J. S.	Clan William.
Coxe, S. A.	Brandon.
Cruikshank, J. G.	Deloraine.
Dand, J. M.	Deloraine.
Douglas, A. R.	Brandon.
Dunbar, W. A.	Winnipeg.
Elliott, H. J.	Dauphin.
Fisher, J. F.	Brandon.
Harrison, W.	Steno. ro.
Hayter, G. P.	Birds.
Henderson, W. S.	Carberry.
Hilliard, W. A.	Minnedosa.
Hilton, G.	Portage la Prairie.
Hinman, W. J.	Winnipeg.
Hurt, W. N.	Whitewater.
Irwin, J. J.	Stonewall.
King, Thomas.	Souris.
Lake, W. H.	Morden.
Lawson, R.	Royal Lake.
Leduc, L.	Winnipeg.
Little, C.	West Selkirk.
Little, M.	Pilot Mouna.
Little, W.	Boltonville.
Lipest, J. H.	Holland.
Livingston, A. M.	Melita.
McFadden, D. H.	Emerson.
McGillivray, C. D.	Pincourt.
McGillivray, J.	Manitou.
McLoughry, R. A.	Moosomin.
McMillan, A.	Virton.
Mack, J. S.	Neepawa.
Martin, W. E.	Winnipeg.
Milroy, J. P.	Morris.
Murray, G. P.	Winnipeg.
Pomfret, H.	Elkhorn.
Robinson, P. R.	Emerson.
Rosecroft, G. V.	Birds.
Rutherford, J. G.	Ottawa.
Scurlfield, R. D.	Crystal City.
Shultz, W. A.	Gladstone.
Smith, H. D.	Winnipeg.
Smith, W. H.	Carman.
Snider, J. H.	Emerson.
Stevenson, C. A.	Gilbert Plains.
Stevenson, J. A.	Carman.
Stiver, M. B.	Elgin.
Svenson, W.	Carberry.
Taylor, W. R.	Portage la Prairie.
Thompson, S. J.	Winnipeg.
Torrance, F.	Winnipeg.
Walton, T.	Elkharney.
Welch, J.	Roland.
Whaley, H. E.	Glenboro.
Whimster, M. A.	Hamiota.
Williams, A. E.	Winnipeg.
Woods, T. Z.	Winnipeg.
Young, J. M.	Rapid City.

The practice of the veterinary profession in Manitoba by any other person is in direct contravention of the statute, and renders him liable for prosecution.

FREDERICK TORRANCE, Registrar.

MR. UP-TO-DATE FARMER



Now that you are about through seeding, you will have time to decide on the kind of POWER you will buy for your fall and winter work. If you want a WINDMILL, the CANADIAN AIRMOTOR is the one for you. Or a Gasoline Engine, then buy the STICKNEY. Or a Sweep or Tread Power, the BELL is just what will suit you. Nothing better made than the above. Write us for prices to-day.

Ontario Wind Engine & Pump Co., Limited, Winnipeg.

WILL MAKE YOUR WIFE WELL

Many a husband is held down and life robbed of much happiness because his wife is an invalid. I will send a free sample of this Wonderful Remedy, which has brought happiness into so many homes. Address, enclosing stamp, MRS. F. V. CURRAE, Windsor, Ont.

TRADE NOTE.

WHEAT LANDS.—Mr. W. N. Reid, of Regina, whose advertisement appears in this issue, offers for sale a large line of choice selections in wheat lands, situated in all the best districts, the vicinity of Regina being a specialty. Mr. Reid enjoys an experience of many years in the West, is a practical wheat-grower and land expert, and is thoroughly familiar with the subject of Western land and its productive possibilities. Mr. Reid will be pleased to place his services at the disposal of prospective buyers and to furnish any desired information in response to inquiries.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Lost, Strayed or Stolen.

Below is to be found a list of impounded, lost and stray stock in Western Canada. In addition to notices otherwise received, it includes the official list of such animals reported to the Manitoba and N.-W. T. Governments.

This department, not heretofore published in these columns, is for the benefit of paid-up subscribers to the Farmer's Advocate, each of whom is entitled to one free insertion of a notice not exceeding five lines. Notices exceeding five lines will be charged two cents per word for each additional word, payable in advance.

ESTRAY.

OKOTOKS.—Five dollars each will be paid for the recovery of three bay mares, one four years old, and two three years old, branded Z., with K hanging at bottom, on right shoulder. Robt. J. Young.

MACOUN, Assa.—Strayed from a pasture at Estevan, between August 25th and November 1st, 1903, a pair of bay ponies, with halters on, and branded V and R. One had a sore on left knee. A. A. Maxwold.

Strayed, black mare, aged 3 years, medium size, branded Z T on right shoulder; few white hairs on forehead; thickened left hind hock. Bay mare, aged 4, medium size, square built; branded Z T on right shoulder, L on right hip. Narrow scar on left fore leg above knee; \$5 reward. P. C. Anderson, Qu'Appelle, Assa.

QUESTIONS AND ANSWERS
Miscellaneous.**RE SALE OF MOHAIR.**

Re mohair, we are not using it, and know of no one buying it, unless the wool dealers in Winnipeg would take it. I noticed in a trade paper some time ago that there was some talk of a factory starting up in the East. I enclose the address of an American firm that might buy it. (D. Goff & Sons, Pawtucket, R. I.)

BRANDON WOOLEN MILLS CO., LTD.
HOME-BREWED BEER.

Can you tell me if a person is allowed to brew homemade beer for his own consumption without a license in this country, the same as the working man does in England? J. F. J. Man.

Ans.—Yes; but it must not be sold, nor may the privilege be abused.

HERMAPHRODITE

I take your paper, and I get lots of good useful pointers from it. Are hermaphrodites common among cattle? I have one two years old. Is it worth any more than a steer? Is it worth anything for a curiosity? S. Melfort.

Ans.—No, such are not common, and are only of interest to scientists, and is of no more value than a steer for fattening, which would be the best thing to do with it. Will give a little information on hermaphrodites in a future issue.

RE MAKING A LIVING OFF A SMALL FARM

Making a living off a small lot of land is a profession. Many gardeners do well off 5 acres, but to succeed on a small farm of 5 or 10 acres requires trained skill as a gardener and a market for his products. On 10 acres in the Okanagan, a deal of truck may be raised on good land with abundance of water, potatoes, onions, carrots, parsnips, cabbage and tomatoes being, perhaps, the most profitable so far from the consumer, and some men can and do succeed at growing the above; but so much depends on the man that I can give no more positive answer to Mr. Derrick's question.

THOS. A. SHARPE.

Veterinary.**LAME BEHIND.**

Young horse last spring struck the toe of his hind foot on a frozen lump. Lameness at first hardly noticeable, but was kept in stable for 5 weeks, and blistered stifle with turpentine, hartshorn and oil, but got gradually worse. Now he carries the leg from the ground; when standing, toe rests on the ground and leg out to one side. Hock bone prominent, flank hollow, and when he tries to use the leg, the knee is never bent, only the pastern joint. Kindly prescribe.

SCOTIA.

Ans.—Call in a competent veterinarian to examine this horse, as the lesion may be more serious than the description might lead one to believe.

POLL EVIL.

A mare, raising a colt, had a sore just behind her halter on top of neck about a month ago. It ran a yellowish, thick matter. I dressed it, and it healed, but broke out again this week and discharged again. It is very sore. Mare is doing well, and so is colt. What is the cause, and what can I do for it, and is it infectious? J. C. Buffalo Plains.

Ans.—Have a competent veterinary surgeon see this mare, if possible. The disease is not contagious.

IN NEED OF A TONIC TREATMENT.

Cow got lame on front leg two months ago; got better again, and got lame in hind legs, and now cannot walk—just stand a little while at a time; legs swelled; getting awfully thin; doesn't eat well; aborted last fall, but is due to come in again in August. I have bathed her legs with hot water, and given her different medicines, but she seems to get worse. SUBSCRIBER. Craik.

Ans.—Feed the cow well a ration of bran and chopped oats and a little ground flaxseed, along with a sufficient quantity of hay or other bulky food. Get the following powders: Sulphate of iron, 1 ounce; sulphate of copper, 1 ounce; nux vomica (powdered), 2 ounces; gentian (powdered), 6 ounces; fenugreek, 2 ounces. Mix; give one-twelfth part daily—half morning and the other half in the night feed.

LYMPHANGITIS.

I have an aged horse which stocks very badly in left hind leg and slightly in the right one when standing in stable. I worked him two weeks in seeding, and three days after I quit working him, his left hind leg swelled to twice its natural size and got very stiff and sore; then, in two or three days it seemed not to be so sore, but remained swelled; then the right hind leg became very sore and stiff and seems to remain so. I can hardly move him, and he holds the leg up most of the time, and does not lie down. He is thin in flesh, and has been for a year or so, but eats well and heartily. I have been bathing his legs with warm water. Eli. SUBSCRIBER.

Ans.—By the description, this horse's blood has got into a bad state. Give him an aloetic pill (8 drams); first stop rough feed, such as hay, during purging, rely on bran mashes. Give an ounce of nitrate of potash in the feed daily for a week. Carefully hand-rub and bandage the leg, and give regular exercise.

INFLAMMATION OF THE UTERUS.

Had a cow that calved and did not clean herself the first day. The next day I tried to take the cleanings from her; I could reach it all, and it was so tender that it tore when I pulled on it, so some did not come from her, but seemed to be all right the first three days; became sick on the morning of the fourth day—she worked and strained as if to calve. I examined her, but could not find anything. She died the same day; when I opened her she was all black inside, such as womb, small intestines. What was the cause of her death, and what could I have done to save her? READER.

Ans.—The cow died of septic metritis (inflammation of the womb, accompanied by poisoning). Such cases require care and the use of antiseptics, such as some of the coal-tar or dip products advertised. Get a copy of Veterinary Elements, \$1.50, this office, and read up on the anatomy, and you will understand the care called for in such cases.

SCURFINENESS OF THE LEGS IN DRAFTERS

Tell me a good remedy for a Clyde horse, very heavy feather on legs, that is affected with scales or kind of rough scabs on the hind legs, underneath the feather; they don't seem itchy, but upon touching, the legs appear sore, and the rough scab will drop off, leaving sore spots. SUBSCRIBER. Alta.

Ans.—A favorite remedy with heavy horsemen is the sulphur mixture: powdered sulphur and raw linseed oil mixed to make the consistency of cream, which is rubbed well in to the hair after a thorough washing with castile soap and warm water, the legs being dried with dry bran or dry sawdust. Sometimes when the legs are gummy, some coal oil is added to the sulphur mixture.

Chatham Incubators Hatch Spring Eggs into Fall Dollars.

May and June are the best months to start in. June hatched chicks grow like weeds during the early summer and many of the risks of the business are avoided if you start now.

Every chick you can mature and market in October is worth 50 cents, if not more. The next three months are the right ones in which to get started in the chicken-raising business. There's good money in it and the women folks and children can do all the work that needs to be done in about one-half hour daily.

The way to make poultry pay is to get "broiler" chicks of uniform size and weight ready for the market when prices are highest, and the only way this can be done is with a good incubator. The one that is sure and never-failing is the CHATHAM. If the egg is fertile the chick is sure to be hatched every time by a



No Cash to Pay
Until Fall, 1905.

Chatham Incubator

So sure are we of results that we take chances on your success before we get our money for the machine.

We will ship you a Chatham Incubator, freight prepaid, and give you two years to pay for it. Nothing to pay until November, 1905.

The Chatham Incubator pays for itself every hatch, and if you get started now, which you should, the June hatched chicks will have a market value of 50c. each by October, thus enabling you to pay for the incubator without using one cent of money not earned by the machine itself.

Our beautiful and complete book, "How to Make Money Out of Chicks," tells the whole story. No poultry raiser can afford to be without it. It's FREE. Send for it NOW.

THE MANSON CAMPBELL CO., Limited
Dept. 2 CHATHAM, ONT.

Distributing Warehouses at Montreal, Que., Brandon, Man.; Calgary, Alta.; New Westminster, B.C., and Halifax, N.S.

Factories at Chatham, Ont., and Detroit, Mich.
Also Manufacturers of the famous Chatham Fanning Mills and Chatham Farm Scales.



Manson Campbell

18

WOOL

washed and unwashed wool.

WANTED. Write to-day and get our quotations on sack and tags furnished. Address

Brandon Woolen Mills Co., Ltd.
Brandon.

RE SICK MARE

J. B. Abernethy:

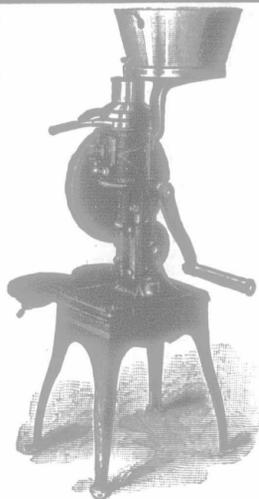
1. Think it possible a case of lymphangitis; or, what some people term, the milk had gone through her system. The above due to chill after the miscarriage, and it is quite possible that the after-birth (membranes) did not come properly away and induced a species of blood poisoning. Tonic treatment will be the only thing to follow now, such to embrace quinine and iron, 2 ounces quinine, 4 ounces tincture chloride of iron, water to make 1 quart; give 2 tablespoonfuls twice daily with a hard-rubber syringe in the mouth. Give also at noon in the drinking water daily for two weeks, 2 tablespoonfuls of Fowler's solution.

TEA IS BENEFICIAL.—The notion that tea is injurious to persons of weak nerves is a false idea, as has been proven by the eminent scientist Jonathan Hutchinson. Tea is in reality a nerve-nutrient, and is extremely beneficial to weak nerves, especially when you use pure tea direct from the gardens, packed in sealed lead packets, such as the "Salada" Ceylon Tea, which received the highest award and gold medal at St. Louis Exposition.



Advertise in the Advocate

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



DE LAVAL SEPARATORS

The Kind the Creamerymen Use.

There are only two kinds of Cream Separators : The DE LAVAL and others.
Those who "know" buy the DE LAVAL.
A few buy "others" and separator experience at the same time.

The condensed bought-and-paid-for experience of all the most advanced dairymen is told in three words :

BUY THE DE LAVAL

Then why make costly experiments which can only bring you to the same conclusion?
Our catalogue explains fully DE LAVAL superiority. Send for it to-day.

The De Laval Separator Co., 248 McDermot Ave., WINNIPEG, MAN.
Montreal Toronto New York Chicago Philadelphia San Francisco

Successful Feeding and Breeding.

Some very important remarks that may well be given prominence for the benefit of stock breeders generally throughout the country were made by Professor Jas. Wilson, B. Sc., of the Royal College of Science, Dublin, in the course of a most interesting lecture which he delivered last week at the annual dinner of the Land Stewards' Benevolent Association of Ireland, held on the second night of the spring show. In his opening remarks the Professor laid special emphasis on an all-important aspect of stock management, namely, the treatment of cattle in winter time. He alluded to the fact that the men constituting his audience were not the ones to instruct on this point, but there was no denying the fact that there were very many farmers in all parts of the country who were not in the same condition, and who needed to be brought face to face with the importance of good care and treatment of their cattle during the cold, harsh winter months. He went on to illustrate this aspect of the stock-raising question by making a statement which should arrest the attention of farmers who are content to pursue their operations in a slipshod and careless fashion. The statement was that there were about 4,500,000 cattle in Ireland, made up of 1,500,000 cows, 1,000,000 over two years old, 1,000,000 between one and two years of age, and about 1,250,000 calves. Of these he took, for the purpose of calculation, the calves. They were worth at the end of the year, he would estimate, about £5 per head; it took £8 to bring them through the winter, and in spring, in the majority of cases, they were worth £7. That meant a loss of £1 per head. This was rendered all the more regrettable and remarkable when it was remembered that by a different system of treatment they could gain £1 instead of losing that sum. By giving generous and judicious feeding, attention and shelter during winter time, farmers might bring their calves up to a value of £10 or £11 in the spring time. This could be done at an expenditure of 10s. or £1 extra in food, and would represent a gain of 20s. to 30s. per head, instead of a loss of 20s. which is at present the rule. Calculating the older animals at proportionate rates he would estimate that Irish farmers lost from £7,000,000 to £10,000,000 per annum.

To inbreeding, contended the Professor, was due the stamping of type in these two principal breeds, and not only did inbreeding set them going, but it was a proven fact that the most impressive sires that have come over to Ireland were bulls that have been inbred. As examples of this he cited such Shorthorn sires as Sign of Riches (in whose pedigree Cruickshank's bull, Champion of England, occurs about twenty times), Secretary of State, Laureate and Prince of the Lilies, and among the Aberdeen-Angus, Jumper and Edward VII., both of which were inbred to the cattle of Watson, of Keillor Castle.—[Farmers' Gazette (Ireland).

CALVANIZED STEEL WOVEN WIRE FENCE

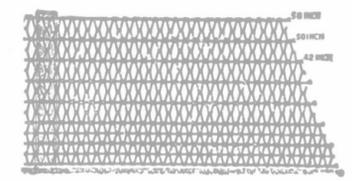


After all is said and done, more of Our Fences are in use than all other makes of Wire Fences combined. Our Sales double every year.

HIGH CARBON.

55 INCH	
47 IN.	9
39 "	8
32 "	7
26 "	6
20 "	5 1/2
	5
	4 1/2
	4
	3 1/2
	3

American Field and Hog Fence.



Ellwood Field and Lawn Fence.

IF YOUR DEALERS DO NOT HANDLE OUR FENCES, WRITE TO US.

The Canadian Steel & Wire Co., Ltd.
WINNIPEG, Man. HAMILTON, Ont.

We call your special attention to our Extra Heavy Fence, all Horizontal Wires No. 9 Gauge, Weighs more per rod, has greater tensile strength than any other Fence on the market



Choice Wheat Lands In all parts of Manitoba and Territories **Improved and unimproved**

My 26 years' experience in the Canadian West can be of value to you in selecting land for a home or investment. Let me know what you want and I will be pleased to select for you or assist you in doing so.

As a sample of what I have to offer, look at these:
320 acres first-class land, 2 miles from Regina, capital of the Territories, well improved, new house cost \$2,700. Price, only \$30 per acre; terms very easy.
640 acres, 3 1/2 miles from Oak Lake, Man., good buildings, 580 acres cultivated, all fenced and cross fenced, black loam land, clay subsoil. Price, \$10,500; terms easy. Will sell crop of 400 acres at cost of seeding if sale is made soon.
3 sections prairie land, splendid quality, near Davidson, Assa, at \$6 per acre, easy terms.
For further particulars address,

W. N. REID, P.O. Box 371, Regina, Assa.

The following is an excerpt from one of Allan MacLachlan's letters to the Toronto News: "An' what bee has got intil Tam Crawford's bonnet. Ah doot he's ben readin' about the man i' Californy growin' staneless plums an' seedless aples. An' noo he wants us tae hae nane but hornless kye. Gif the Lord had inteded the kye tae dae without horns he wadna hae made ony but Polled Angus an' mulleys. Sure am I that Tam Crawford, wi' a' his wisdom, has nae mair richt tae say that ma coo shall na keep her two bonnie horns than ah hae tae require an inch aff his neb because it's lang enuech tae poke ower far intil ither folks' business. Losh keep me, man, Jeanie, wad tak ma heid off, gin ah sae muckle as mentioned knockin' aff the coo's horns."

"ALLAN MACLACHLAN."

"Why, Mrs. Mussel," says the neighbor who has dropped over for a moment, "I see your husband has hired a man to dig the garden. He is such an advocate of exercise that I should think he would do the work himself."

"He would," explains Mrs. Mussel, "but by the time he goes through his physical culture exercises in the morning he is too tired to do any other work."

DON'T BUY GASOLINE ENGINES UNTIL YOU INVESTIGATE. "THE MASTER WORKMAN," a two-cylinder gasoline engine superior to all one cylinder engines; revolutionizing gas power. Costs Less to Buy and Less to Run. Quickly, easily started. No vibration. Can be mounted on any wagon at small cost—portable, stationary or traction. Mention this paper. SEND FOR CATALOGUE. THE TEMPLE PUMP CO., Mrs. Mcagher & 16th St., Chicago. THIS IS OUR FIFTY-FIRST YEAR.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Time is the measurer of all things.—COLTON

THE ELGIN WATCH

the most accurate of time's instruments

Every Elgin Watch is fully guaranteed. All jewelers have them. "Time-makers and Timekeepers," an illustrated history of the watch, sent free.

ELGIN NATIONAL WATCH CO., ELGIN, ILL.

QUESTIONS AND ANSWERS. Veterinary.

SHOULDER TUMOR.

My horse's shoulder became galled at work and swelled considerably. After swelling went down a hard lump about size of one's fist remained. It is not raw, and does not seem sore. How can lump be removed? SUBSCRIBER.

High River.

Ans.—Usually the surgeon's aid is necessary to cut out the tumor, sometimes these are gristly (fibroid), and others contain a very slight amount of fluid.

SUSPICIOUSLY LIKE LUMP JAW.

What is the matter with my cow? There appeared a small lump under her throat, and I put Fleming's lump-jaw cure on it several times, but it would not take it away, so I cut it open and put the cure right in it. I also tried some strong horse liniment, but it did not blister it any. She has a lot of small lumps on her jaw, just where the teeth are, and I found a few loose teeth in her mouth. Would teeth do it? I don't think it is lump jaw, as it is quite loose from the bone. Let me know some kind of blister; or has it to be cut away, as it affects her windpipe? She grunts as she eats, and she is failing. Would musty hay cause boils in cattle's throats? SUBSCRIBER.

Ans.—This case is suspiciously like one of lump jaw, for which dram doses, twice daily, of iodide of potash are to be recommended. It is possible for the enlargements to be due to tuberculosis. Would recommend you to push the iodide treatment for a couple of weeks, and paint the enlargements with tincture of iodine. In all cases when the enlargements are loose from the bone, it is preferable to cut them out without liberating the pus.

NETTLE RASH-ORCHITIS.

I have a stallion not quite two years old. The other day he began to swell all over in little blotches; head, breast and flanks were covered with them. I have had the horse in the stable, and have fed him on whole and chopped oats. He has had lots of exercise in the corral during the day. As soon as I discovered the blotches I turned him out, and they went away as quickly as they came. Would you kindly state in your next issue the cause of the complaint, whether it is a regular occurrence in a horse, and the treatment for same.

I have also another stallion about six years old, is looking good, eats well, and feels good, but his testicles are swollen very much; have washed the sheath well, and used embrocation on them, but the swelling does not seem to go down.

Taber. E. P.

Ans.—The condition described is quite common and comparatively harmless, if attended to. A mild purgative, followed by half-ounce doses of soda bicarbonate and two-dram doses of nitrate of potash once or twice daily for a week or ten days is all that will be needed. Regarding the older stallion, the inflammation is much more serious; bathe with cold water in which is some acetate of lead (an ounce to a gallon). The changes are a bandage should be applied to suspend the inflamed organs; on no account apply any chemical of a blistering or stimulating nature.



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

TERMS.—One cent per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 25 cents.

BEESWAX WANTED.—Will pay 30 cents a pound for good clean beeswax here. James Durcan, Emerson, Man.

CABBAGE Plants for Sale.—Early and late cabbage plants at 50c per 100; tomato, 1c each, or 90c per 100; cauliflower, 1c each, \$1 per 100; all carefully packed. Menlove & Thickens, Virden, Man.

ENGLISH Bob-tailed Sheep Dogs for sale. Puppies from champion-bred imported parents; grand workers with cattle and sheep. Prices, \$6 and upwards. Bowen, 233 Lizzie St., Winnipeg.

FOR SALE.—Large English Berkshire pigs, six weeks old, with pedigree, at \$5 each, f.o.b., High River. T. E. Bowman, High River, Alta.

FOR information about the rich Dauphin country write the Dauphin Land Co., Dauphin, Man., for list of improved and unimproved farms. H. P. Nicholson, manager.

I AM prepared to pay cash for suitable improved property and farm lands. If you desire a quick sale for your lands or business, write me to-day. C. E. Henry, Gould Hotel, Winnipeg.

IMPROVED and UNIMPROVED FARMS for sale in Grand View district, Man. Lists upon application to Benj. C. Nevill, Real Estate Agent, in Territories. Address, J. F. Middlemiss, Wolsely, Assa.

ONE HUNDRED and SIXTY ACRES, five miles from Swan River. Black sandy loam, sixty acres broken, log buildings. Price nineteen hundred. E. J. Darroch, Swan River.

WANTED at once.—Salesman in Manitoba and the N.-W. T. to represent "Canada's Great Nurseries." Biggest assortment of hardy fruits, ornamental and shade trees. Recommended by Experimental Stations at Brandon and Indian Head. Big inducements to energetic men. Pay weekly. Special new outfit, designed for Western men, free. Spring canvass now starting. Write now for terms. Stone & Wellington, Toronto.

THRASHING OUTFITS FOR SALE

A number of rebuilt portable and traction engines; also separators, all in first-class running order. We have practically all sizes and can supply complete outfits, or separate machines, as desired. Low prices and terms to suit.

The John Abell Engine & Machine Works Co. P.O. Box 481. (Limited) Winnipeg, Man.



POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at one cent per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns.

EGGS for hatching from Golden Wyandotte, Indian Games and Barred Plymouth Rocks, \$2 for 15. One pair of Pekin Ducks for sale. Write S. Ling, 128 River Ave., Winnipeg.

THERE'S money in eggs.—Get to know how to preserve them and make money. Full particulars for 50c. Apply, Stewart, 89 Dagmar street, Winnipeg.

VIRIDEN Duck and Poultry Yards. Eggs for hatching from Mammoth Pekin Ducks, White Wyandottes and Black Orpingtons, \$1.50 per setting, \$3 per 100. Correspondence solicited. Menlove & Thickens, Virden, Man.

GOSSIP.

"Royal Household" is fast becoming one of the best known terms in our language. This is the name of a brand of flour manufactured by the Ogilvie Flour Mills Co., and is a favorite wherever used for the making of bread or pastry.

In this issue will be found the advertisement of the McKillip Veterinary College, Chicago, Ill. Under the Manitoba law governing veterinary practice, veterinarians must be graduates of what is known as a three-year school. A similar law holds good in Quebec. Veterinarians in this Province who have attended the McKillip College are: Drs. Coxe (Brandon), Lawley (Brandon), Rutledge (Bois-Sevain), McArthur (Hartney), C. D. McKilvray (Dominion Veterinary Inspector), R. D. Scurfield (Crystal City), and the editor of this paper. Located at Chicago, the college enjoys a large practice, and students get plenty of clinical experience, an absolute necessity if they hope to be successful in practice. Dr. McKillip, the head of the institution, is an inspiration in himself to students to do thorough work, and as a clinician and instructor on the diagnosis of lameness has few equals. A course in meat inspection (a division of veterinary work likely to be established in connection with the veterinary branch at Ottawa before many moons) is also given, and the great abattoirs of Swift, Armour's and others afford plenty of material. Farmers' sons intending to study veterinary medicine should send for a copy of the college calendar.

TRADE NOTE.

McMILLAN FUR & WOOL CO.—The information below will help those desirous of shipping to the McMillan Fur & Wool Co., Minneapolis, Minn.: Manitoba, Northwest Territory, Ontario and British Columbia, ship your furs to us at Minneapolis by express, and the express agent will attend to getting them through the customs house and forwarding them to us. No duty on raw furs or seneca. Consular invoice fee, \$2.50, where value of shipment is \$100 or over. Ship hides, seneca root, tallow and grease by freight. G. S. calf and kip under 25 lbs. and dry calf and kip under 12 lbs. admitted free. G. S. hides over 25 lbs. and dry hides over 12 lbs. are charged 15 per cent. duty on wholesale market value at shipping point; but at our prices they net good profit, even after paying the duty. On tallow there is a duty of 1c a pound; when it is low it does not pay to ship it. The duty on sheep pelts and wool excludes them. The customs houses are located as follows: On the "Soo" Line from the east, at Sault Ste. Marie; on the Northern Pacific, "Soo" and Great Northern from Winnipeg and beyond, at Emerson; on the "Soo" Line from Regina and beyond, at Portal; and on the narrow gauge line from Lethbridge, at Coutts. See the agents and get through rates of freight. A special rate is now quoted on hides in less than car lots from Winnipeg.

Admiral "Bob" Evans in a recent conversation with a group of officers threw a great white light upon one of the methods at least by which the Japanese have attained that splendid adaptability to European and American ways.

"When I commanded the New York some years ago," he said, "I had a Jap servant with whom I was especially well pleased. He was prompt, remarkably quick to learn, and took such a deep interest in everything that sometimes, just to amuse myself, I devoted not a little attention to explaining things that he appeared not to understand. A good waiter, too, he was. Well, finally he disappeared.

"Some time later, when on the European station, I made a call on a Jap battleship lying in the harbor of Marseilles. The captain met us at the gangway and escorted us to his cabin. As we were seated he suddenly turned, threw off his hat, and whipped a napkin over his arm.

"The captain would drink?" he said in a tone I remembered.

"Kato!" I cried, jumping to my feet.

"The same," he said, bowing. "Captain Kato of the Mikado's navy."

BREEDERS' DIRECTORY.

Breeder's name, post-office address, class of stock kept, will be inserted under this heading at \$3.00 per line per year. No card to be less than two lines or exceed three lines.

A. D. McDONALD, Napinka, Man.—Breeder of A. Shorthorns, Yorkshires and Berkshires. Young pigs for sale.

A. D. GAMLEY, Brandon, Man.—Breeder of Leicester sheep and Roadster horses. Stock for sale.

B. POTTER, Maple Leaf Farm, Montgomery, Assa., Holsteins, Yorkshires and Berkshires.

BRYAN BROS., Craik, Assa. Breeders of White Rocks and White Wyandottes. Eggs from winners, \$3 per setting of 15.

C. W. TAYLOR, Dominion City.—Barred Plymouth Rocks, Buff Cochins, Black-headed Red Game, White Cochins.

C. O'BRIEN, Dominion City. Buff Orpingtons, Scotch Deer Hounds, Russian Wolf Hounds.

D. HYSOP & SON, Killarney, Man., Landaser Farm, Shorthorns and Percherons.

E. D. BROWN, Boissevain.—Silver Wyandottes. Eggs, \$3 per setting.

ELTON & WATT, breeders of pure blood Hereford and Shorthorn cattle. Choice young bulls now for sale. Cloverdale Farm, 3 miles northeast of Birds' Hill, Springfield Township, Man.

E. T. GRIFFITHS, Moose Jaw, Assa.—Breeder of Clydesdales and Shorthorns. Stock for sale.

GORRELL BROS., Pilot Mound, Man.—Shorthorns. Stock of both sexes for sale.

H. W. HODKINSON, Neepawa, Man. Barred Rocks. Winners.

HENRY NICHOL, Fairview Farm, Brandon, Man. Breeder of Clydesdale horses and Shorthorns, etc.

J. W. MARTEN, Gotham, Wis., U. S. A.—Importer and breeder of Red Polled cattle.

J. G. WASHINGTON, Nings, Shorthorns and Clydesdales. Four choice young bulls. One stallion two years. Good one.

JOHN GIBSON, Underhill, Man.—Breeder of Shorthorns and Tamworths. Stock for sale.

J. MANSFIELD, Rosebank Farm, Brandon, Man., Breeder of Shorthorns. Young stock for sale, both sexes.

JOHN WISHART, Portage la Prairie, Man.—Breeder of Clydesdales and Hackney horses. Young and breeding stock of both sexes for sale.

J. H. REID, Moosomin, Assa.—Breeder of Herefords. Young bulls for sale.

J. M. MACFARLANE, Moose Jaw, Assa.—Breeder of Clydesdale horses.

J. CHILDREN & SONS, Okotoks, Alta.—Duroc Jersey swine, either sex, for sale.

JAS. TOUGH, Lake View Farm, Edmonton, breeder of Hereford cattle.

LAKE & BELSON, Grenfell, Assa.—Breeders of Polled-Angus cattle. Young bulls for sale.

E. E. THOMPSON, Deloraine, Man.—Breeder of Clydesdales, Shorthorns, Jacks and Jennets. O. I. C. swine and P. B. Rocks.

PLUM CREEK STOCK FARM.—J. H. Kinnear & Son, Souris, Man. Breeders of Shorthorns. Stock for sale.

R. A. COX, breeder and importer.—Shorthorns, Berkshires and B. P. Rocks. Beresford, Man. Stock for sale.

R. A. & J. A. WATT, Safem P.O. Ont., and telegraph office.—Breeders of Shorthorns and Clydesdales, imported and Canadian-bred females; also a pair of bull calves.

RIVEREDGE FARM.—Shorthorn cattle, Deerhounds, B. Rocks, B. B. R. Games. A. A. Titus, Napinka, Man.

REGINA STOCK FARM.—Avrshires and Yorkshires for sale. J. C. Pope, Regina, Assa.

ROBT. SINTON, Regina, Assa.—Breeder and importer of Herefords. Stock, both sexes, for sale.

R. P. STANLEY, Moosomin, Assa.—Breeder of Percherons and Hackneys. Stallions of both breeds for sale.

SHORTHORNS and Clydesdales. Wm. Chalmers, Smithfield Stock Farm, Brandon. Phone at residence.

SHORTHORNS of the fashionable families. John Kennedy, Swan River, Man. (C. N. R.), 1 1/2 miles from town.

THE "GOULD FARM," Buxton, North Dakota, U. S. A., breeders of Red Polled cattle, the dual-purpose breed of America.

TRAYNOR BROS., Regina, Assa.—Clydesdales. Stallions for sale.

THOS. ELLIOTT, Regina, Assa.—Breeder of Herefords.

THOS. DALE, Portage la Prairie, Man.—Breeder of Shorthorns and Berkshires. Young and breeding stock of both sexes for sale.

WM. LAUGHLAND, Hartney, Man.—Breeder of Shorthorns, Berkshires and B. P. Rocks.

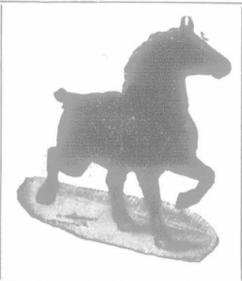
WM. DAVIDSON, Lyonshall, breeder of pure-bred Shorthorns. Young stock of good quality for sale.

W. S. LISTER, Middle Church (Nr. Winnipeg), Marchmont Herd Scotch Shorthorns. Bull all ages from imported stock. Telephone 1004B.

YOUNG Shorthorns for sale. Prices reasonable. Apply to Stewart Bros. & Co., Pilot Mound, Man.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

America's Leading Horse Importers



We have brought to this country nearly every first, second, third and fourth prize-winner in every Percheron stallion class in every Government Show held in France since the Paris Exposition, 1900.

Our horses won every first and nearly every prize down to the fifth at the St. Louis World's Fair.

On account of bringing in the best, our trade is increasing, so that we bring the largest number. We have made five importations in 1904, bringing more Percherons and French Couachers than have been imported by all others combined.

If you want the best, write

McLAUGHLIN BROS.,

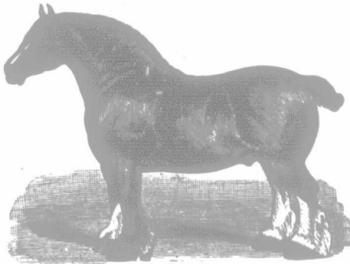
St. Paul, Minn. Columbus, Ohio. Kansas City, Mo.

JOHN CHAMBERS & SONS

Holdenby, Northampton, Eng.

Farm over 2,000 acres of land just in the centre of the Shires, and breed the very best and soundest of the

SHIRE HORSE



which from birth are kept in their natural condition, neither forcing nor overfeeding for showing purposes.

Canadian buyers visiting England are invited to call and see what we have to show them and obtain their stallions and mares direct from the men that breed them.

No fancy prices, and all delivered free Liverpool landing stage. Correspondence invited.

Station—Althorp Park, L. & N.W. Ry.

ALEX. GALBRAITH & SON

Brandon, Manitoba.

After a most successful season of sales we still have on hand a selection of strictly high-class

PERCHERON & SUFFOLK COLTS

And to close out will sacrifice on price. If in need of a stallion, write at once.

JAMES SMITH, MANAGER.

BRANDON, MAN.

Clydesdale Stallions



Our third consignment since Toronto Fair has just arrived, per S. S. Athena, from Glasgow, which includes several of the best colts ever landed in America. Prices right. See this lot, om

JAMES DALGETY, London, Ont.

SIMCOE LODGE STOCK FARM

CLYDESDALES

Any persons wanting to purchase Clydesdale fillies and stallions for breeding should call on us before buying elsewhere, as we always have a number of prize-winners in our lot.

HODGKINSON & TISDALE

BEAVERTON, ONT.

Long-distance Phone in connection with Farm 70 miles north of Toronto, on Midland Division of G. T. R.

Elbow Lameness

Is that the trouble with your horse? A quick method to cure this trouble is by applying

DR. CLARK'S WHITE LINIMENT

It cures the soreness and lameness promptly.

SOLD BY ALL DEALERS FOR 50 CENTS.

A good thing to always have in the stable.

The MARTIN, BOLE & WYNNE CO., Winnipeg, Man.

In answering any advertisement on this page kindly mention the FARMER'S ADVOCATE

QUESTIONS AND ANSWERS. Miscellaneous.

INFORMATION RE CUSTOMS

Where can I get a copy of the Canadian and American customs duties? Carlyle.

IGNORANT.

Ans.—Apply to the nearest custom house on each side of the line. The Canadian Almanac, price 35c., contains the Canadian list.

BORDEAUX MIXTURE-FENCING R. R. RIGHT-OF-WAY.

1. What is the Bordeaux mixture spoken of on page 220, of your February 15th number of the "Farmer's Advocate"?

2. Where can I obtain said mixture?

3. Can a settler compel a railroad to furnish material for fencing their right-of-way through or joining settler's land? Raymond.

SLOW PAY. Ans.—1. Place 5 lbs. bluestone in a cloth sack, and suspend it over night in a wood vessel containing 4 gals. of water, immersing the sack. In another wood vessel slake 5 lbs. of fresh lime in as many gallons of water. When the lime is cool, pour it and bluestone solution into a barrel, and add water to make 45 gallons.

2. Make it yourself. See above. Fuller instructions, issue April 12th, page 535.

3. Yes, and build the fence too. Better write the company.

LOCATING WELL.

I want to build a house, stable, etc., but before doing so, intend digging a well. Will you please say the best way to locate or the most likely way to find water? The land is rolling, and there are no sloughs. W. C. H.

Ans.—Note carefully the local conditions and the nature of the country where springs are found, then try to locate the well where the topography of the country is similar to that. Frequently, at the head of a ravine, toward a mountain, water is quite near the surface. On hill-tops, of course, one does not expect to find water near the surface, but we have all seen springs rising from such improbable places, especially when there is a higher hill not many miles away. The use of witch hazel and other magic arts are entirely discredited as means of locating springs. One must exercise his best judgment, and trust a good deal to chance in digging wells.

RAILWAY KILLING CATTLE

1. What is the limit of speed for passenger trains to run over highway crossings in city limits?

2. Can a person collect damages for cattle killed on the King's highway in city limits, if an attendant is with them?

3. Railway company are under obligation to city, being allowed to put second track over crossing on condition that they place flagman at crossing as soon as traffic would warrant it. City had twice notified railway to place flagman at crossing before accident occurred. Is railway company liable?

4. Crossing was blocked by yard engine and freight cars, which finally pulled up to allow cattle to cross. Cattle started across track and passenger train coming in opposite direction ran into herd, killing some, attendant being with them. Is railway company responsible? J. J. W.

Man.

Ans.—1. Six miles an hour.

2. Yes, unless there was contributory negligence.

3. Yes.

4. It would be determined by the facts brought forth in the evidence. You probably would have a good cause of action.

D. D. F. Thompson advertises in the Poultry and Eggs advertising columns a preservative which he claims will keep eggs fresh the entire season.

A young lady teacher, who was a great favorite with the poet Whittier, had recently married. Meeting the young husband one day, Mr. Whittier remarked: "John, they ought to be on the school board."

The young man, somewhat surprised, said: "Why, Mr. Whittier, what makes you think so?"

"Because," was the reply, "there is such a good judge of schoolmasters."

HORSE OWNERS! USE



CAUSTIC BALSAM.

A safe, speedy and positive cure. The safest, most BLISTER ever used. Removes all bunches from Horses. Impossible to produce scar or blemish. Send for descriptive circulars.



A BAD BITTER.

His Bunches and Bruises can be removed quickly without stopping work with

ABSORBINE

This remedy cures Lameness, kills Pain, removes any Soft Bunch without blistering or removing the hair, and is pleasant to use. \$2.00 per bottle, delivered, or at dealer's. ABSORBINE, JR., for man-kind, \$1.00 Bottle. Alays inflammation rapidly. Cures strains. Book I-B Free. W. F. Young, P.D.F., 46 Monmouth St., Springfield, Mass. Canadian Agents, Lyman, Sons & Co., Montreal.

FONTHILL STOCK FARM

50

SHIRE HORSES

AND MARES to choose from.



MORRIS & WELLINGTON,

FONTHILL, ONTARIO

FOR SALE

The gem of the Rocky Mountains, a pure white

PERCHERON HORSE

Foaled in the foothills, weighing 1500 lbs. when in condition. This horse has a mane 7 feet 3 inches in length and an immense tail, which makes him one of the most valuable show horses on earth. In consequence of business engagements I am offering this wonderful moneymaker at a bargain. Address:

JAMES WILSON, Sunny Slope, Alta.



FOR SALE: The Clydesdale Stallion FITZPATRICK 3951.

Four years old, bay; face, one fore and both hind feet white. He is a sure foal-getter, beautifully put up, showy, of good disposition and broken to harness. Communicate with

WM. MARTIN, or J. W. IRWIN. 811 Union Bank, Box 15, WINNIPEG, MAN. EDMERSON, MAN.

KELWOOD STUD FARM

Importers and breeders of Thoroughbreds. Also Buff Orpingtons and Game fowls.

THE STALLIONS:

"Kelston" Imp. "Abbeywood" at stud. Fee, Thoroughbred, mares, \$25 to insure. Mares from a distance kept at \$2 per month.

DALE & PULFORD, South Qu'Appelle, Assa.

Special to Farmers HALF-TONE ENGRAVING

Have a nice half-tone engraving made of some of your pet stock. Write for samples and information. Mail orders is our specialty.

WM. A. MARTEL & SONS, Half-tone Engravers, Line Etchers, Photographers, 326 Smith St., WINNIPEG, MAN.

EDMONTON & ATHABASCA STAGE

Stage leaves Edmonton every Tuesday morning for the Athabasca Landing, carrying mail, express and passengers, arriving at Athabasca Landing Wednesday evening. Leave Athabasca Landing Friday morning, arriving in Edmonton Saturday evening. Good stock and conveyance. Good meals along the way. Stage connects with boats for the Lesser Slave Lake and all points north.

RATES, \$7. EXPRESS, 3c. POUND.

GEO. E. MACLEOD, P. O. Box 229, Edmonton

For information pertaining to REAL ESTATE

in CENTRAL ALBERTA, address E. J. COLLISON, Didsbury, Alberta Canada. FARM, RANCH and TOWN PROPERTY.

McKillop Veterinary College, CHICAGO, ILL.

(Chartered 1892.)

LARGEST PRACTICE IN THE WORLD.
Affording unlimited clinical advantages.

The College building has been recently enlarged and modernized by the addition of new laboratories, dissecting room, amphitheatre, contagious ward, hospital ward and a canine hospital. All the furnishings are of the latest improvement.

There has been added to the curriculum two important courses, Hygiene & Breeding and Veterinary Jurisprudence, making the curriculum most complete.

The College is to-day the most complete and best-equipped institution of its kind in this country, and offers to the student a scientific and practical course which cannot be obtained elsewhere.

Regular Graduate Course, acquiring the Degree of Doctor of Veterinary Medicine.

Post-graduate Course, acquiring the Degree of Doctor of Veterinary Medicine.

Meat Inspection Course, preparatory to the Civil Service Examination for Government Inspectors. Special attention is given this course, in order to prepare the student for the Civil Service Examination.

Practitioners' Course—Five weeks' advanced work in Medicine, Surgery and Lameness.

SESSION BEGINS OCT. 3rd, 1905.

Write for catalogue and other information.

G. A. SCOTT, V. S., Secretary,
1639 Wabash Avenue. CHICAGO, ILL.

Pedlar's Steel Siding and Shingles

At \$2.00 and \$2.55 per 100 Square Feet



Painted red on both sides. Most durable and economical covering for Roofing or Siding for Residences, Houses, Barns, Elevators, Stores, Churches, Poultry Houses, Cribbs, etc. Easier to lay and will last longer than any other covering. Cheaper than wood shingles or slate. No experience necessary. A hammer and strips are the only tools required. It is semi-hardened high-grade steel. Brick or Stone siding at \$3.00 per 100 Square Feet. Pedlar's Patent Steel Shingles at \$2.55 per 100 Square Feet. Also Corrugated Iron, Painted or Galvanized, in sheets 96 inches long. Beaded and Embossed Ceilings. V Crimped Roofing. 2,000 designs of Roofing, Siding and Ceilings in all grades. Thousands of buildings through the Dominion covered with our Sheet Metal Goods, making them

FIRE, WATER AND LIGHTNING PROOF.

Send in your order for as many squares (10x10 feet) as you require to cover your new or old building. The very best roofing for this climate. We can supply Kave Trough, all sizes, Corrugated or Plain Round, Conductor Pipes, Elbows, Spikes, Tubes.

All goods shipped day after order is received. We are the largest concern of the kind under the British flag. Established 1861. Capital invested \$150,000.00.

THE PEDLAR PEOPLE, OSHAWA, ONT., CANADA.

MONTREAL, Que., OTTAWA, TORONTO, CALGARY, Alta., VANCOUVER, B.C.
767 Craig St. 423 Sussex St. 50 Yonge St. 201 7th Ave., E. 615 Pender St.

Write Your Nearest Office.

QUESTIONS AND ANSWERS, Veterinary.

INDIGESTION.

Have a pig that continually sucks its tongue. Would like you to tell me some cure for it, if there is any cure. It does not grow any. We undertook to raise it by hand. It did all right for three or four days, when it began to suck its tongue. A. C. H. Nanton.

Ans.—Give a dose of Epsom salts, two to four tablespoonfuls, according to size of pig, then follow with subnitrate of bismuth powders, each 10 grains, given morning and night in a little sweet milk, daily for a week.

SYMPTOMS OF GLANDERS.

What are the earliest symptoms of glanders that a horse would show? Rouleau. A. E. G.

Ans.—The earliest suspicious symptoms are often a persistent sticky (gluey) discharge from the nostrils, frequently only one nostril, sometimes a slight cough, and an enlargement of the gland (sub-maxillary) between the lower jaws; in addition, the eye of the same side as that from which the nasal discharge comes may also discharge. In later stages, ulcers may appear in the nostrils and farcy-buds over the body.

Fistula and Poll Evil

Do yourself what horse doctors charge big prices for trying to do. Cure Fistula or Poll Evil in 15 to 30 days. Fleming's Fistula and Poll Evil Cure is a wonder—guaranteed to cure any case—money back if it fails. No cutting—no scarring. Leaves the horse sound and smooth. Free Book tells all about it—a good book for any horse owner to have. Write for it. FLEMING BROS., Chemists, 46 Front Street, West, Toronto, Can.

CIDER MAKING

Can be made profitable if the right kind of machinery is used. WE MAKE THE RIGHT KIND.

Send for catalogue.
BOOMER & BOSCHERT PRESS CO.,
365 West Water St., Syracuse, N. Y.

\$3 a Day Sure Send us your address and we will show you how to make \$3 a day absolutely sure; we furnish the work and teach you free; you work in the locality where you live. Send us your address and we will explain the business fully; remember we guarantee a clear profit of \$3 for every day's work, absolutely sure, write at once. IMPERIAL SILVERWARE CO., Box 706, WINNIPEG, ONT.

QUESTIONS AND ANSWERS, Veterinary.

BLACKLEG.

Had a calf about two months old; got sick and died the same day. After it was dead I opened it; the inside of hind quarters were black between the skin and flesh, and the same on the breast-bone. What was the cause of its death, and what could I have done to save the calf? Carstairs. A READER.

Ans.—This case looks to have been one of blackleg. You could do nothing with it at that age. With a herd of young cattle it is advisable to inoculate against this disease.

CONGESTION OF THE UDDER

Young cow, first calf last August, gives bloody milk. Have given saltpetre in teaspoonful doses night and morning for several days, and have given Epsom salts in 1½, 1½, and 2 lb. doses, one dose a week for three weeks, and no improvement. Kindly advise? Standoff P. O. SUBSCRIBER.

Ans.—If the gland seems to be congested, the constitutional treatment given should be useful. Some of these cases follow blows upon the udder; being in heat, or from eating plants of an acrid nature. Would suggest bathing the parts affected with equal parts of tincture of arnica and tincture of iodine. Give internally one dram iodide of potash morning and night in the feed.

Miscellaneous.

MOVING SCHOOLHOUSE.

Will you kindly inform me whether we can have our school moved or not? It is about one mile from center, put there by trustees, as there was no attendance at the school meeting, and now the inhabitants want it moved. The trustees did all the work except the carpentry. Is this allowed? J. L.

Ans.—Yes; section 46 of the School Ordinance enacts that the school should be placed in the center of the district, or as near thereto as the road allowance, or a high, healthy, suitable locality shall permit, provided, however, that in case it be not found advisable to place the school in the center of the district, before the school is placed elsewhere, a permit must be written by the Board of Commissioners upon petition, showing the reasons why the school should not be placed in the center of the district.

2. Yes.

KILLING DOG—MISREPRESENTING LAND.

1. A's wife has a valuable dog for hunting cattle and watching the house. B and S, sons of G. D., come along and shoot the dog, about half a mile from A's house and load it up and take it away. A was away from home at the time, to the knowledge of B and S, and was expected to be away for some time. What damages can A claim for the dog, it being on G. D.'s land at the time that it was shot, but on a road that runs through G. D.'s place, but not enclosed? J. S. owns quarter-section of land in this district, and is a non-resident, living in B. C. W. B. plows about 40 acres on the place that had been broken and let run wild again. J. S. is desirous of selling the place, but W. B. and other friends of his tell parties that speak of buying the place that it is no good, and will only give one crop in about three years.

2. Can J. S. claim any damages from W. B. for false representation of property?

3. Can he collect rent from W. B. for the three years that he has the use of property?

4. If C. E. purchased the quarter-section from J. S. after the crop was sown, could he claim the crop, the transfer stating that C. E. was to be entitled to all wood, hay and other crops on the property, crop being sown without the knowledge or consent of J. S.?

5. Can J. S. hold the fence, it being partly built on the road? NEPEAWA.

Ans.—1. A can recover value of the dog from G. D.

2. Yes.

3. Yes.

4. Yes.

5. No.

If you could only see the Easy Running

EMPIRE

Cream Separator

and note how few parts it has, how perfectly simple it is, how easily it turns, how perfectly it skims, how easily it is kept clean, how strong and durable it is, you would at once decide that it is the separator for you. No separator ever made such rapid strides in popularity as has the Empire. The reason is because it satisfies every purchaser. Everyone who has it speaks a good word for it. We ask the privilege of showing it to you, and letting you prove for yourself what it will do. Don't buy a separator until you investigate the Empire.



Free For Asking.

Write your name and address on a postal card and send for our Catalogue No. 12.

Empire Cream Separator Co.

of Canada, Ltd. Toronto, Ontario.

Ontario Wind Engine & Pump Co., Winnipeg, Manitoba.

SIMPLICITY

GASOLINE ENGINES
Vertical and Horizontal, 1½ to 15 h.p. Stationaries, Portables, Pumping Outfits and Sawing Rigs.
GET OUR PROPOSITION
and 1904 catalogue.

Western Malleable & Grey Iron Mfg. Co.
137 Chase Street, Milwaukee, Wis.

OKANAGAN

Farms, town property and business openings for sale at many of the towns in the Okanagan Valley. For particulars apply

Pelly & Pelly,

Real Estate Agents, Armstrong, B. C.

TERRA NOVA STOCK FARM

HERD OF
ABERDEEN-ANGUS
CATTLE.

All the best families represented. So a fine young bulls for sale from both imported and home-bred cows. Prices reasonable. S. Martin, Rounthwaite, Man.

HIGH PARK GALLOWAYS

At present I am offering for sale several bulls from 6 to 20 months old, and a few heifers from 1 to 3 years old, prizewinners and bred from prizewinning stock. Will sell at right prices, and satisfaction guaranteed. Robt. Shaw, Brantford, Ont. Sta. & P. O. Box 294.

Farmers, why not improve your stock by buying a

RED POLLED BULL?

The best for beef and butter. We have some good ones for sale, and the price is right.

H. V. GLENDENNING, Bradwardine, Man.

10 Hereford Bulls

Breeding and quality of the best. Ages, 10 to 20 months old. Show and breeding females of all ages for sale. They are good ones, and prices right. Address:

H. D. SWITH,

Ingleside Farm, Compton, Que.

Prices Reasonable. Terms Easy.
Correspondence Solicited.

P. F. HUNTLEY,
Breeder of Registered
HEREFORDS

P. O. box 154,
Lacombe, Alta., N.W.T.
Inspection of herd invited. Farm two miles east of town.

JOHN T. PARKER, Box 11, Lethbridge, Alta.

BREEDER OF

Alberta Herefords

PRICES RIGHT. TERMS EASY.

Drumrossie Shorthorns—"Drumrossie Chief"
Chief"=52866= at head of herd. Young things for sale at all times.

J. & W. SHARP, Lacombe, Alta.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Kill the Vermin on Your Stock FREE

One of Many
Wheatland, Wyo., April 14, '05.
West Disinfecting Co.,
New York City.
Gentlemen—I send you herewith \$1.50, as per agreement, for the Chloro-Naphtholeum Dip. I have only used part of it, and in every instance where I have applied it its effect was absolutely instantaneous in the destruction of lice and mange on horses and cattle, and leaves them in a very different condition than before it was applied. The hair brushes out smooth and silky, and if it could not be duplicated it would be worth any kind of a price to stockmen anywhere.
(Signed) L. E. ULTER.

I want every stock owner to know for himself the wonderful properties of my stock vermicide, insecticide and disinfectant, and will send you absolutely free
**A GALLON CAN OF
CHLORO-NAPHTHOLEUM DIP
ALL CHARGES PREPAID**

if you will simply ask me for it and tell me the number and kind of stock you own. It is *Absolutely Harmless* to Man or Beast, yet its action in ridding stock of all pests and in curing Parasitic and germ diseases (mange, etc.) is simply marvelous. Use the large sample freely and thoroughly for 30 days—note how *like magic* it works and how quickly your stock improves in health, spirits and appearance. Then if you are pleased send me \$1.50 for the gallon. If it doesn't please you in *every way*—doesn't do *more* than you expect—just tell me your word is sufficient—and I will write you where to send what is left at my expense.
You Can't Afford to Delay—every moment you wait is costing you money—for if your animals are continually uneasy or in agony from insects, parasitic or from germ diseases, their feed does them little or no good, and that *costs money*—and besides, your stock is never in condition.
Write me *today*, before it slips your mind.

E. TAUSSIG, Pres. West Disinfecting Co., 14 E. 59th St. NEW YORK, N.Y.

DISPERSION SALE OF 30 HEAD OF SHORTHORNS

All bred from Watt's stock bull, "Royal Sailor," and others. Five bulls old enough for service. Cows all in calf or calf at foot to my stock bull, "Edward 7th" (Imp.).

C.N.R. train going west stops at farm, four miles west of Portage la Prairie, at 10.30 on day of sale.

WEDNESDAY, JUNE 14.

WRITE FOR CATALOGUE.

D. S. McDONALD, Auctioneer.

THOMAS E WALLACE, Portage la Prairie, Man.

Hawthorn Bank Stock Farm

A new importation, just out of quarantine, are on the way west, and will reach home about May 1st.

SHORTHORNS

A select number are included, mostly heifers.

GALLOWAYS

There are 3 bulls, all yearlings and toppers; one of them won 1st at Newton Stewart Show in a large class. Anyone in want of Shorthorns or Galloways, don't forget to write or call before buying.

JOHN GRAHAM, - - - CARBERRY, MAN.

BARGAINS IN SHORTHORNS

Nobleman (Imp.), a Winnipeg winner, of Nonpareil breeding, and Pilgrim (Imp.), a massive, smooth, red bull; also Nonpareil Prince, a straight Nonpareil two-year-old, winner of first at Winnipeg, 1904, and Fairview Prince, same age, another winner this year, along with

FIFTEEN YOUNGER BULLS

fit for service, is JOHN G. BARRON'S present offering for sale. Mr. Barron is crowded for room, so will dispose of heifers and cows at rock-bottom prices.

JOHN G. BARRON, CARBERRY, C.P.E., FAIRVIEW SIDING, C.N.R.

PATLY STOCK FARM

KILDONAN, MANITOBA.

Having sold my farm, must sell at once all my prize stock, consisting of CLYDESDALES, THOROUGHBREDS and HACKNEYS; SHORTHORNS, GOLDEN WYANDOTTES, INDIAN RUNNER DUCKS, etc.

Among the Clydesdales is the imported 3-year-old stallion Cadet, one of the best ever imported; six young brood mares are prizewinners and two champions, the pick of Colonel Holloway's great stud, two of them in foal to last year's Winnipeg champion, Baron William (Imp.).

Thoroughbred stallion Experience, brood mare Nora Howard and two fillies out of her. A 4-year-old in training, by Davidson, and a 2-year-old, by Hard Lines. HACKNEYS—4 choice young mares with foals at side, matched pairs and single drivers. SHORTHORNS—16, headed by August Archer, brother to the great Ceremonious Archer, champion of America; 6 yearling heifers and two bulls.

End of St. By., ST. JOHN'S, WINNIPEG.

J. A. MITCHELL.

Advertise in the Farmer's Advocate.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Taking Care of the Hides.

As the beef ring is an established institution in many farming communities the information below as to the care and cure of hides will be quite pertinent:

Green Hides—Hides just as they come from the animals, never having been salted.

Part-cured Hides—Hides that have been salted, but not long enough in salt to be thoroughly cured.

Green Salted Hides—Hides that have been salted long enough to be thoroughly cured.

Green Kip—All veal skins running from 15 lbs. to 25 lbs. shall be classed as veal kip. All long-haired and thin skins running from 8 lbs. to 25 lbs. shall be classed as runners.

Green Calf—All veal skins running from 8 lbs. to 15 lbs.

Deacon Skins—All calf skins under 8 lbs. shall be classed as deacons.

Dry Flint Hides—Are thoroughly dry hides that have not been salted.

Dry Salted Hides—Are thoroughly dry hides, having been salted when green.

Grubby Hides—Hides having one or more grubs.

All dry kip and calf shall be classed the same as hides. All hides shall be free from salt, dirt, meat, dung, horns, tail-bones and sinews; and before being weighed all such substances shall be removed, or a proper deduction made from the weight; and when the head hangs to the side by a narrow strip, it shall be cut off; also when the head is not split in the center, it shall be made straight before being weighed.

All bull, stag, tainted, grubby, badly-scared, cut, scored and murrain hides, both green and dry, shall be classed as damaged, unless they shall be very badly damaged, when they shall be classed as glue stock. Dry hides, which are moth-eaten, sunbunt or weather-beaten, shall be classed as damaged. All kip and calf, both green and dry, shall be termed the same as hides, with the exception that the tail-bone may be left in calfskins.

All green-cured hides of 60 lbs. and over shall be called heavy, and all green-cured hides under 60 lbs. shall be called light hides. All dry hides, 18 lbs. and over, shall be called heavy, and all dry hides under 18 lbs. shall be called light hides.

During warm weather it is necessary to have green hides salted promptly or they will spoil, but hides can be shipped green in the winter season in a frozen state without salting. To cure a hide properly it is first necessary to trim it by cutting off what does not belong to the hide, such as horns, tail-bones and sinews, then spread the hide on the floor and sprinkle salt evenly and freely over the flesh side. In this way pile one hide on the other, flesh side up, head on head, tail on tail. It will take a week or more to cure hides thoroughly.

When hides have lain over a week in salt, they will then do to tie up and ship, after having shaken off the surplus salt.

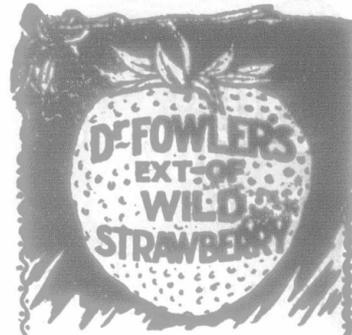
For a large heavy hide it will take about a pail of salt, and a less quantity for a smaller hide or calfskin, in proportion to size.

Green butcher hides shrink in salting from 10 to 15 per cent; consequently, salted or cured are worth from one to two cents more than green.

During cold weather hides can be shipped green without salting.

WERNER, Martin, Bole & Wynne Co.'s advertiser, says: "When we speak about St. John's Condition Powders, we always speak in the superlative degree, because a great many manufacturers have a good condition powder, then, again, some other fellow may have a better one; but we have the best, and that's about as far as you can go in points. It means quality and perfection, and that's just what our condition powders are—a case of a spoonful of St. John's that produces a bushel of effect."

Just to popularize "Royal Household" flour, the Ogilvie Flour Mills Co. are giving free to applicants a most beautiful composite colored work of art, taken from the brush of a well-known painter. The picture is at once attractive and appropriate, and reflects great credit upon the enterprise of the donors.



Is nature's specific for
**DIARRHOEA, DYSENTERY,
CRAMPS, PAIN IN THE STOMACH,
COLIC, CHOLERA MORBUS,
SEA SICKNESS, and all SUMMER COMPLAINTS** in Children or Adults.
Its effects are marvellous.
Pleasant and Harmless to take.
Rapid, Reliable and Effectual in its action.
IT HAS BEEN A HOUSEHOLD REMEDY FOR NEARLY SIXTY YEARS.

PRICE 25 CENTS.
REFUSE SUBSTITUTES. THEY'RE DANGEROUS.

RUPTURE

Sufferers will rejoice to learn that Medical Science has at last triumphed in producing a positive Cure for this agonizing and dangerous ailment. The results are astonishing: the Medical Profession as well as all Ruptured. Cases that have defied human ingenuity have yielded in a short time. No operation, pain, danger, or time from work to be

CURED One of the many remarkable cures performed is that of Conductor W. H. Greaves, Medicine Hat, N.W.T., whose portrait here appears. He was ruptured 5 years. To further introduce this wonderful cure **Dr. W. S. Rice, 21 East Queen Street (Block 288) Toronto, Ont.**, the Discoverer, will send a Trial, also his book "Can Rupture be Cured?" Write to-day—Sure—Now.

Sittyton Stock Farm SCOTCH SHORTHORNS

Members of this herd won the two grand championships as Regina Fat-stock Show, 1904; also diploma herd 1903 and 1904. FOR SALE—Twenty young cows and heifers in calf to Sittyton Hero 7th, my great show and stock bull.

GEO. KINNON, Cottonwood, Assa.

Scotch Shorthorns

Herd headed by Royal Macgregor, an excellent stock bull and prize-winner of note. Young stock of both sexes for sale.

P. TALBOT & SONS, - Lacombe, Alta.

Shorthorn Bulls, Heifers and Heifer Calves for Sale.

The get of Sir Colin Campbell (Imp.)—28878— and General—30399—. Cows all ages, in calf or calf at foot. Seventy head to choose from. Three Clydesdale stallions two and three years old. Also mares and fillies, Leicester sheep, both sexes. Stock always on hand. m Geo. Rankin & Sons, Hamiota, Man.

SUNNY SLOPE SHORTHORNS

For sale: Loyalty (Imp.) 40437, also six choicely-bred yearling bulls, and ten cows and heifers. The heifers sired by Trout Creek Hero (thrice champion at Calgary). Prices reasonable and quality right.

JOHN RAMSAY, Friddis, Alta.

THORNDALE STOCK FARM.

SHORTHORN herd numbers 100, headed by Challenge—30462— and Royal Sailor—37071— Sixteen yearling bulls for sale, and a lot of younger ones; also females of all ages.

T. W. ROBSON, Maniton, Man.

Sharple's Tubular Separators

SEPARATORS

Will you buy a separator because the agent is a "good fellow?" Some people do. Tubulars talk for themselves—are bought for themselves.

If You Have a Brand New Separator not a Tubular, put it in the garret. Get a Sharple's Tubular, guaranteed to make enough more butter than the other, from the same milk, to pay 25 per cent yearly dividend on the cost of the machine. You test them side by side.

Rockefeller is hunting a place to put money at 6 per cent; here is a guaranteed 25 per cent to you. While this dividend pays your bills the Tubular makes your life more pleasant by pleasing your wife.

A waist low milk vat saves your back. Simple bowl—easy to wash—the only one that has automatic oiling; the only one that has. Easier to turn than others and safer. Catalogue A-188 explains better.

Canadian Transfer Points: Winnipeg, Toronto, Quebec, St. John's, Calgary.

Address
The Sharple's Co. Chicago, Ill. P. M. Sharple's West Chester, Pa.



Provincial Mutual Hail Insurance Company of Manitoba.

This company has been in business for fourteen seasons and can fairly claim to have done as profitable a business for those who have insured in it as any other doing business in the same line. An examination of the business done during and since the year 1891, shows that the company have not only paid losses, but have paid larger amounts per acre on an average during all these years than their competitors. The highest amount paid per acre in any one year was \$7.50, the lowest, \$3. On an average of the 14 years the company have paid \$5.50 per acre, and this on an average assessment of 22 cents per acre. Ten years, the company paid the full claims of \$6 per acre. Apart from local agents' commissions, for securing business, the total cost of running the company during the year 1904 was about \$3,000. The report does not set out the method of adjustment of the losses. By pointing out the methods adopted by some companies in this respect, the just and liberal method of this company becomes more apparent. In some companies, the farmer is assessed on a basis of a total loss of \$5 per acre. Should a storm strike his crop and a total loss result, he receives the full amount, providing the company can pay it.

Supposing the loss is only partial, or say one-half or one-fifth of the crop, the farmer is paid a proportion of the loss, as it stands, to the amount insured. Thus for one-fifth or a five-bushel loss on a wheat crop going twenty-five bushels an acre, the farmer is paid one dollar, because one dollar is a fifth of the five he is insured for. For a similar loss, The Provincial Mutual pays TWO DOLLARS, or forty cents a bushel for every bushel destroyed up to fifteen bushels, or six dollars per acre.

There are no percentage limits in the Provincial Mutual, every loss is adjusted at what it is found to be and thus the farmer whose crops are damaged by hail storms gets paid for the loss sustained, which is what he insures for, and not a percentage of it. If farmers would consider the different methods of paying for damages done by hail storms in Manitoba, they would find that the adjustments of the original company, the Provincial Mutual Hail Insurance Company, are still the fairest, and to the loser by storms, the cheapest of any company doing business in the Province. The remark was made the other day that the Provincial Mutual was too honest in their method of doing business. This should be the best kind of a recommend.—[The Debater Times.

WHEN NERVES PLAY OUT

MIND AS WELL AS BODY IS IN DANGER—HELP FOUND IN

Dr. Chase's Nerve Food.

Suicide, insanity, falling sickness, paralysis. These are some of the results of worn-out nerves.

The vitality of the body cannot stand the strain, and, overcome by worry, failing health, anemia, menstrual derangements, overwork or exhausting disease, mind and body have been wrecked.

No one would neglect a disease so dreadful in its results as nervous exhaustion if the danger were only realized with the first symptoms.

The time to begin the restoration of the nerves by the use of Dr. Chase's Nerve Food is when you find yourself unable to sleep at nights, suffering from headaches or neuralgic pains, indigestion or weak heart action.

Loss of flesh and weight, growing weakness and debility, a tendency to neglect the duties of the day, gloomy forebodings for the future, are other indications of depleted nerves.

You cannot liken Dr. Chase's Nerve Food to any medicine you ever used. It is a nerve vitalizer and tissue-builder of exceptional power.

Naturally and gradually it rekindles life in the nerve cells and forms new red corpuscles in the blood—the only way to thoroughly cure nervous disorders.

Dr. Chase's Nerve Food, 50 cents, at all dealers, or Edmanson, Bates & Co., Toronto. Portrait and signature of Dr. A. W. Chase, the famous recipe-book author, are on every box.

William Pinkerton, the detective, was praising the various cash registering devices that have come of late years into world-wide use.

"These machines," he said, "have undoubtedly diminished crime. I heard of a clerk in a grocery the other day who was getting \$8 a week. He had to be on duty at 7 o'clock in the morning, and he was not through till 7 and sometimes 8 at night.

"He found time, though, to get married, and the week after the ceremony he asked his employer for a raise.

"Why, Horace," the employer said, "you are getting \$8 a week. What ails you? When I was your age I kept a wife and two children on \$8 a week and saved money besides."

"They didn't have cash registers in those days," said Horace, bitterly.

HE'S ONLY ONE OUT OF SCORES

But Dodd's Kidney Pills Made Him a New Man.

Richard Quirk Doctored for a Dozen Years and Thought His Case Incurable—Dodd's Kidney Pills Cured Him.

Fortune Harbor, Nfld., June 12.—(Special)—Scores of people in this neighborhood are living proofs that Dodd's Kidney Pills cure all kidney ailments from Backache to Bright's Disease. Among the most remarkable cures is that of Mr. Richard Quirk, and he gives the story of it to the public as follows:

"I suffered for over twenty years from Lumbago and Kidney Disease, and at intervals was totally unable to work. After ten or twelve years of doctors' treatment, I had made up my mind that my complaint was incurable. Reading of cures by Dodd's Kidney Pills tempted me to try them. I did so with little faith, but to my great surprise I had not taken more than half a box before I felt relief, and after the use of seven or eight boxes, I was fully cured and a new man."

"Yes, Dodd's Kidney Pills cured my Lumbago and Kidney Disease, and the best of it is I have stayed cured."

Veterinary Examination.

A veterinary surgeon, writing in an Old Country exchange, presents the following arguments in favor of a veterinary examining a horse before it is purchased:

Most people who have anything to do with horses believe themselves to be good judges; anyhow, they take offence at the bare suggestion from anyone else that they are not. Many of what I should call lesser judges scout the idea of asking a vet. to examine or advise them before making a purchase. Some of these would be surprised to learn that the very best judges and largest of dealers (both as to numbers of horses and prices paid) are in the habit of paying for a vet.'s examination. I think the explanation is to be found in the fact that all who know a horse from a mule cultivate

an eye for conformation, and with opportunities of comparison daily, sooner or later conceive an ideal horse or standard of outward perfection as to shape and make and general behavior, and thereafter a horse is good, bad or indifferent in their opinion according as he more or less conforms to that ideal. This education of the eye is not the monopoly of the scientifically trained or of the cultured, many illiterate men possessing it in larger degree than those with greater opportunity of developing the sense of comparison, the possession of which "sense" is in itself usually considered a proof of high civilization. There are many degrees of comparison in the thoughts of the people of this country. Among the Zulus there are none. A man is "good man" or "bad man," they have no conception of a "middling man."

Where buyers come to grief when acting on their own judgment of horseflesh is in their failure to detect infirmities or causes of unsoundness. I am inclined to give the average horseman credit for being as good a judge of general conformation and suitability for his purposes as the average vet., but the latter will often see some damning fault, from the other side of the road, which the horseman has not looked for or thought of until its effects have been brought home to him.

The Vet.'s Advantage.

The horseman sees the animal as a whole; the vet. sees him as an engineer views an engine, and with an eye to the portions of the machine known to most frequently develop faults or be subject to greatest friction or strain. He has the advantage of having taken horses to pieces in the dissecting room, as the engineer has done in the machine shop. He knows how the respective parts ought to fit, and what may be expected if they do not.

A knowledge of the structure of an animal and the purposes for which his various parts are designed is an essential preliminary to a correct judgment as to soundness. An ideally sound horse has been conceived, just as an ideally formed one has taken root in the mind of the horseman, and though a theoretically sound horse is rara avis in terris, yet the anatomist has handled perfect specimens and easily detects imperfections.

Let me give an example of what happens for want of a knowledge of anatomy, and that not of a kind which must be learned in the dissecting-room. A man came to me to-day to appoint a time for an examination as to soundness, as he said, "he had been took in over the last horse, and found after he bought him that he had had two holes punched in the inside of his nose." I asked him if they gave any trouble, and he replied in the negative. Asked him if he had looked in any other horse's nose to see if more of the same sort of holes could be found, and he replied with some dignity that he had not. "Well," I said, "if you can show me a horse that hasn't such holes I will buy him for you and make you a present of him." We adjourned to a stable where several horses could be examined, and found that on the floor of each nostril every horse had a hole which has very much the appearance of being "punched," as the man said, so clean-cut is it in a healthy animal.

If the owner will look inside his horse's

(Continued on next page.)

Ring-Bone

So common nearly every body knows it when he sees it. Lameness, and a bony enlargement just above the hoof, or higher and on the upper pastern bone, sometimes extending nearly around the part, sometimes in front only, or upon one or both sides. Cases like the latter are called Sidebone.

No matter how old the case, how big the lump, how lame the horse, or what other treatment has failed, use

Fleming's Spavin and Ringbone Paste

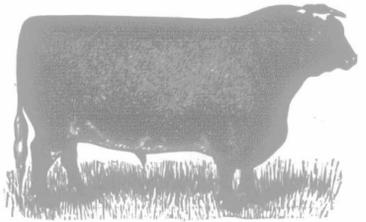
Use it under our guarantee—money refunded if it fails to make the horse go sound. Often takes off the lump, but we can't promise that. One to three 45-minute applications required and anyone can use it. Get all the particulars before ordering—write for Free Horse Book that tells you what to use for every kind of blemish that horses have.

FLEMING BROS., Chemists,
46 Front Street, West, Toronto, Can.

GREAT ENGLISH REMEDY

BLAIR'S GOUT AND RHEUMATIC PILLS

The best and surest cure for GOUT and RHEUMATISM. Thousands have testified to it. All stores and the BOLE DRUG CO., Ltd., Winnipeg, and LYMAN, SONS & CO., Montreal and Toronto.



Arthur Johnston GREENWOOD, ONT.

Offers the following:

- 5 imp. bulls, all registered in E. H. B.
- 7 high-class home-bred bulls, all by imp. sires, and from imp. or pure Scotch cows.
- 7 imp. cows and heifers.
- 7 very fine heifers of our own breeding, by imp. sires, and mostly from imp. dams.

SHORTHORNS

Still have a few good young bulls to offer. Also an exceptionally good lot of heifers, among which there are show animals. Prices easy.

CATALOGUE.

H. O'GILL & SON, O'GILL, ONT.
JOHN CLANON, Manager, om

MAPLE SHADE SHORTHORNS

Nine young bulls fit for service. Showing the finest Cruickshank breeding. Good Size, Quality, Flesh and Bone.

Inspection invited. Catalogues on application. om

JOHN DRYDEN & SON, Brooklin P.O., Ont.

T. DOUGLAS & SONS, Strathroy, Ontario.

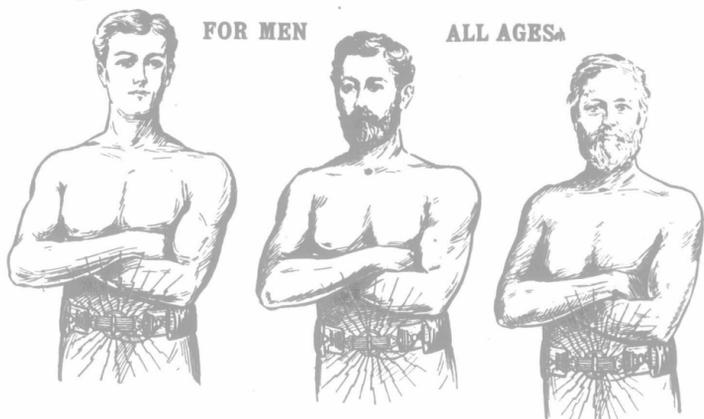
SHORTHORNS and GLYDESDALES

Present offerings: 12 young bulls of No. 1 quality, ready for immediate service; also cows and heifers of all ages. Also one imp. stallion and two brood mares. Prices reasonable. Visitors welcome. Farm one mile from town. om

For Sale Three extra good SHORTHORN BULLS, at special prices for one month. Ages range from 6 to 11 months; two are dark red and one dark roan. All are first-class individuals, and will sell at reduced prices if sold within one month. om
JOHN McFARLANE, Dutton, Ont.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

My Free Electric Belt



Never before has another person made a free offer such as this. I do not distribute cheap samples broadcast, but am daily sending out dozens of my full-power Dr. Sanden Electric Belts absolutely free of charge, and they are the same in every respect as though full cash prices were paid. The proposition is simple. If you are ailing, call at my office and take a Belt home with you. Or, if at a distance—no matter where—send your name and address, and I will at once arrange to deliver to you one of my Belts, with suspensory or other attachment needed. Use same according to my advice until cured, then pay me—many cases as low as \$5. Or if not cured, simply return the Belt, which will close the transaction. That's all there is to it. If you prefer to buy for cash, I give full wholesale discount.

Not One Penny in Advance Nor on Deposit.

Not a cent unless you are made well. I make this offer to show men what faith I have in my own remedy, and I can afford to take the risk because not one in a thousand, when cured, will cheat me out of the small amount asked. It pays me and my patient. My business was more than doubled the past year. Each Belt embodies all my own exclusive inventions (latest patent March 7th, 1905), and all patients receive the benefit of my 40 years' experience, a knowledge of infinite value, and which is mine alone to give. I am the originator of the Electric Belt treatment, and all followers are imitators. This I will prove by any guarantee you may ask. You wear my Belt all night. It sends a soothing current (which you feel) through the weakened parts, curing while you rest. Used for lost manhood, nervous debility, impotency, varicocele, lame back, rheumatism, lumbago, dull pain over kidneys, pains in all parts of the body, kidney, liver, bladder disorders, constipation and stomach troubles. Send for the Belt to-day; or, if you wish more information, write me fully of your case and receive my personal reply. I will also send my descriptive book, sealed, free of charge. I have thousands of recent testimonials from grateful patients. Would you care to read some of them?

Let us take charge of your case at once. I will put new life into you in two weeks' time. Don't you do the worrying. Put that on me. I will take all the risk. I have something to work for. Unless you are cured I get no pay. Address

DR. C. T. SANDEN, 140 Yonge Street, TORONTO.
Office Hours: Saturday until 9 p.m.

Sunshine Furnace

Coal Wood Coke Burns all Fuels

McClary's

London.~Toronto.~Montreal.
Winnipeg.~Vancouver.~St. John. N.B.

If You Have a Farm for Sale

Or Want a Situation, put an Advertisement in our WANT AND FOR SALE COLUMN. Our Want Ads. Always Bring the Best Results.

The William Weld Co., Limited, Winnipeg, Man.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Veterinary Exams. — Continued.

nostrils he will see a hole on the reflected skin near the margin. It is the orifice of the duct or channel which conducts the surplus moisture from the front of the eye, and is squeezed into the corner or top end of canal when the horse blinks. All animals are so provided. Men who refuse to cry at scenes of grief blow their noses in order to dispose of the tears which would otherwise run down their manly cheeks.

Slaughter of the Innocents.

To impress young readers, may I tell another story? It shall be short. When thousands of horses were being sent to South Africa, and the supply of vets. ran out, some of the transports sailed without these officers. On one of them a zealous militia officer in command, who could not distinguish between the nasal discharge of influenza and that of glanders, and had been told (and rightly) that the presence of an ulcer on the membrane was diagnostic of glanders, made the astonishing discovery of my friend of this morning, and proceeded to pistol 180 horses before someone else discovered that other horses had the same "ulcers" that had not shown any nasal discharge or other symptoms of disease.

GOSSIP.

HORACE GREELEY AND THE DISSENTIENT SUBSCRIBER.

An Acquaintance met Horace Greeley one day, and said: "Mr. Greeley, I've stopped your paper."

"Have you?" said the editor, "well, that's too bad," and he went his way.

The next morning Mr. Greeley met his subscriber again, and said: "I thought you had stopped the 'Tribune.'"

"So I did."

"Then there must be some mistake," said Mr. Greeley, "for I just came from the office and the presses were running, the clerks were as busy as ever, the compositors were hard at work, and the business was going on the same as yesterday and the day before."

"Oh!" ejaculated the subscriber, "I didn't mean that I had stopped the paper; I stopped only my copy of it, because I didn't like your editorials."

"Pshaw!" retorted Mr. Greeley, "It wasn't worth taking up my time to tell me such a trifle as that. My dear sir, if you expect to control the utterance of the 'Tribune' by the purchase of one copy a day, or if you think to find any newspaper or magazine worth reading that will never express convictions at right angles with your own, you are doomed to disappointment."

WHAT IS THE MEANING OF THE WORD "SALE"?

The Secretary of the Territorial Live-stock Associations accuses the "Farmer's Advocate" of direct falsehood in the statements it made re the various sales at Calgary, and also states that information re "the horse fair and sale" was mailed to all Western papers, including the "Farmer's Advocate." We accept the latter statement, but it is remarkable that this paper and a city contemporary failed to receive the circulars re the horse fair and sale, or any information whatever regarding the time, place or method of holding the vendue. We might also state that a copy of the circular referring to the establishment of a department of agriculture for Alberta was not sent this paper, although a copy was secured, it being deemed of sufficient public interest to warrant its publication. Neither was a catalogue of the cattle sale received by this paper, which may be considered as a slight to our readers in Alberta. Our doubts arose re the cattle sale being an auction, when a horse sale, advertised in a similar manner, did not materialize as an "auction," or considering the matter another way, to-day the word "sale" means a fair, not an auction, but a month hence, "sale" means an auction. When is it to mean one, and when the other? The attitude of the "Farmer's Advocate" in all such questions is to afford its readers all the information that can be derived, and if at times the shedding of light on certain places or actions is unpopular with a few, this paper cannot afford to be deficient in its duty to its large and growing circle of subscribers.

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for 60 years. Used on 250 millions annually. One dipping kills Ticks, Lice and Nits. No smell. Keeps flock clean a long time. Increases growth of wool. Dipping Tanks at cost. Send for Pamphlet to Chicago. If local druggist cannot supply send \$1.75 for \$2 (100 gal.) pkt. to MARTIN BOLE & WYNN CO., Winnipeg, Man. BOLE DRUG CO., Winnipeg, Man. WM. COOPER & NEPHEWS, Chicago, Ill.

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SCOTCH SHORTHORNS
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JOHN GARDHOUSE & SONS
Highfield P. O., Ont., Breeders of
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A good selection of young stock of both sexes always on hand for sale. Scottish Prince (Imp.), Vol. 63 at head of herd. Royal Albert (Imp.) 2000, at head of stud. Farms 3 1/2 miles from Wexham, G. T. R. and O. E. R., and electric cars from Toronto. om

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

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BARREN COW CURE
makes any animal under 10 years old breed, or refund money. Given in feed twice a day. Particulars from
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Brampton Jersey Herd—We have now for immediate sale ten Bred, from 6 to 18 months old, descended from St. Lambert or imported stock; also females of all ages. In order to reduce our stock, we are making a special offer. For full particulars, address,
B. H. BULL & SON, Phone 68. om Brampton, Ont.

AYRSHIRES, 4 choice bull calves four to service, six months old; 1 bull fit for production. Females all ages, bred for size and production. DAVID LEITCH, Prices right. Cornwall, G. T. R. CORNWALL, ONT. Apple Hill, C. P. R. om

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We are now able to ship young stock, six weeks and two months old, out of imported and Canadian-bred sows, at prices that should appeal to you, if you want to get some well-bred young stuff. We can supply pairs or trios, not akin. Write us for prices.
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CHOICE-BRED STOCK
now for sale;
PAIRS SUPPLIED NOT AKIN.
Inspection requested, and correspondence invited and promptly answered.
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(2)
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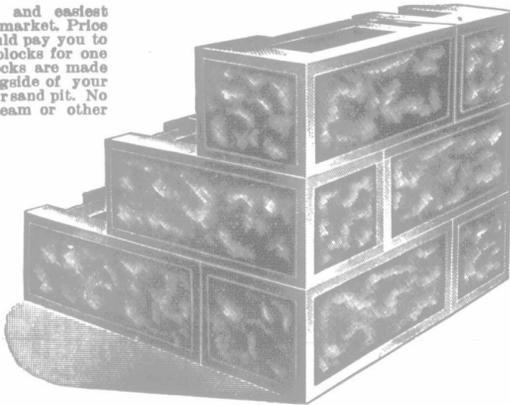
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Most compact, portable and easiest operated machine in the market. Price so reasonable that it would pay you to buy one if only to make blocks for one fair-sized building. Blocks are made out in the open air, alongside of your building, or down by your sand pit. No firing or baking; no steam or other power required. Skilled labor not necessary. Full directions furnished with machine.

MAKES BLOCKS for houses, bank barns and buildings of every description. Cheaper than brick or stone and much handsomer. Warmer in winter; cooler in summer; and indestructible.

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GOSSIP.

Results from well-directed advertising are so sure that it is advisable to prepare for taking care of them even before the advertising is written. "Follow-up" is the first word in publicity as well as the last.—[Printers' Ink.

"Do you remember, dear," he asked, as they sat down on one of the rustic seats at the summer resort, "that I cut our initials on this tree behind us three or four years ago?"

"Why, no, George," she replied. "I don't remember that. Are you sure?"

He rose, walked around the tree, and inspected the bark closely.

"Yes," he said. "It's the tree, all right, but it was another girl."

Some years ago Phillips Brooks was recovering from an illness, and was denying himself to all visitors, when Robert G. Ingersoll called. The Bishop received him at once. "I appreciate this very much," said Mr. Ingersoll; "but why do you see me when you deny yourself to your friends?"

"It is this way," said the Bishop: "I feel confident of seeing my friends in the next world, but this may be my last chance of seeing you."

A curiosity in threshing is reported from Oregon. Last summer a large quantity of wheat was cut for hay, as a reserve of food for cattle, in the event of lucerne falling short. As the winter proved a mild one, hardly any of this wheat hay was required for the animals, and the price of wheat, 80 cents per bushel, was high enough to tempt farmers to put the hay through the threshing machine. It yielded 10 to 15 bushels per ton of third-grade wheat, and paid well for threshing.

WISCONSIN STALLION LAW.

Professor W. A. Henry, dean of the Wisconsin College of Agriculture, has favored the "Farmer's Advocate" with a copy of the new bill regulating the registration and licensing of stallions passed lately by the Wisconsin Legislature. The bill was drafted by Dr. A. S. Alexander, Professor of Veterinary Science at the Wisconsin College of Agriculture, and is intended to eliminate the scrub stallions from the breeding industry of the Badger State. All stallions in the State under the provisions of the bill are required to be recorded at the horse department of the College of Agriculture, with full description and pedigree, which description and breeding shall be forwarded for record with the register of deeds in the county where the stallion is owned.

Owners of stallions to obtain license have to make affidavit that their horse is free from hereditary or contagious disease. The license certificate will show whether the stallion is a pure-bred or grade animal, and has to be posted at the stables where the stallion is kept during the breeding season. The act will not take effect until Jan. 1, 1906, and is expected to encourage the use of sound pure-bred sires.

The new law is an advanced step in State supervision of the breeding industry, and is a realization of the principles of Government control of live-stock husbandry as well as public sanitation and pure-food production.

The law is a wise provision in the best interests of the horse industry, and is expected to eliminate scrub breeding stock. The bill is framed on lines similar to a law in force in the Canadian Northwest.

TRADE TOPIC.

THE OULVIE MILLING CO. have issued a beautiful colored engraving, a copy of which has reached us with their compliments. It is almost as attractive from an artistic standpoint as the bread made from their famous "Royal Household" flour is from a satisfying domestic point of view.



THAT'S THE SPOT!

Right in the small of the back. Do you ever get a pain there? If so, do you know what it means? It is a Backache.

A sure sign of Kidney Trouble. Don't neglect it. Stop it in time. If you don't, serious Kidney Troubles are sure to follow.

DOAN'S KIDNEY PILLS

cure Backache, Lame Back, Diabetes, Dropsy and all Kidney and Bladder Troubles.

Price 50c. a box or 5 for \$1.25, all dealers.

DOAN KIDNEY PILL CO.,
Toronto, Ont.

The Cream Separator that is the Cheapest in the End.

There are some folks who are everlastingly trying to get "something for nothing." They buy a wagon at a "bargain" price because the agent says it's "just as good." And then, after a few months, when the tires and spokes have all loosened up, they cuss the wagon.

Price not the only Difference.

It's the same way with cream separators. You can buy many other separators for less money than the U. S. Cream Separator sells for, but before you've finished paying for the experiment you'll find price isn't the only difference. The cheaper separators soon get out of adjustment because built of cheaper material by inferior manufacturing methods; they consume twice the necessary amount of oil; they have a bowl that will not run true, and does not skim clean. The repairs in the first few years would pay the difference for the U. S. Cream Separator.

Durability is Important.

The U. S. Cream Separator has stood the test of time. Many of them have been in use for 10 years, and cost less than a dollar for repairs. They run easy, skim cleaner than others, have a simple bowl, enclosed gears, and a convenient low supply can.

The Vermont Farm Machine Co., of Bellows Falls, Vt., have printed in a handsome booklet a few of the thousands of letters from satisfied users of the U. S. Cream Separator. This booklet will save you money when you buy a separator, and a post card will bring it to you.

To insure prompt deliveries and to save freight charges for their Canadian customers, they ship from their warehouses at Montreal, Sherbrooke, Hamilton, Winnipeg, Calgary and Vancouver, but all letters should be addressed to Bellows Falls, Vt.

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WHEN WRITING TO ADVERTISERS Please Mention "Advocate"

