

JUNE 17, 1915

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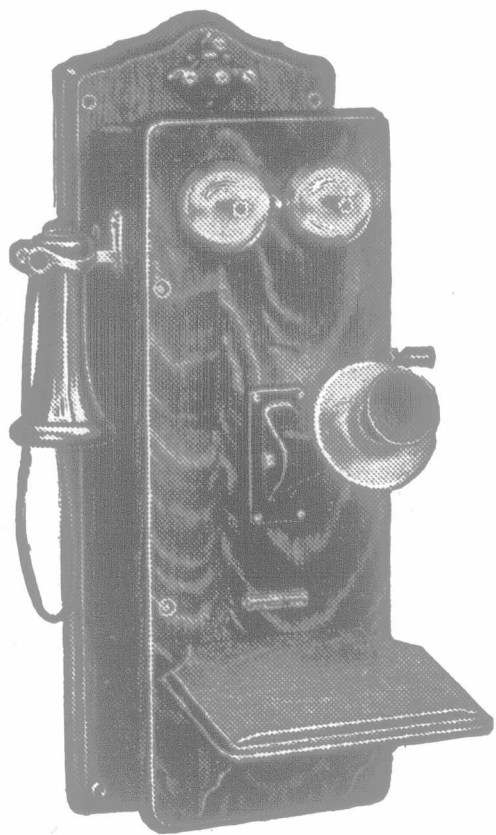


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VOL. L.

LONDON, ONTARIO, JUNE 24, 1915.

No. 1187



Bulletins Free

The No. 3 tells how to build telephone lines, covering every detail of organizing, constructing and operating.

The No. 4 describes our latest magneto telephones--- the best for farm service.

Write for them.

How We May Be Of Service To The Farmers

1st. By supplying authoritative information as regards the organization of an independent local or municipal telephone system.

2nd. By assisting in the organization if desired.

3rd. By supplying guaranteed telephones, switchboards, construction materials, etc.

4th. By supplying complete particulars about the building and equipping of a modern rural telephone system.

5th. By placing at your disposal the experience of our telephone engineers to advise if necessary.

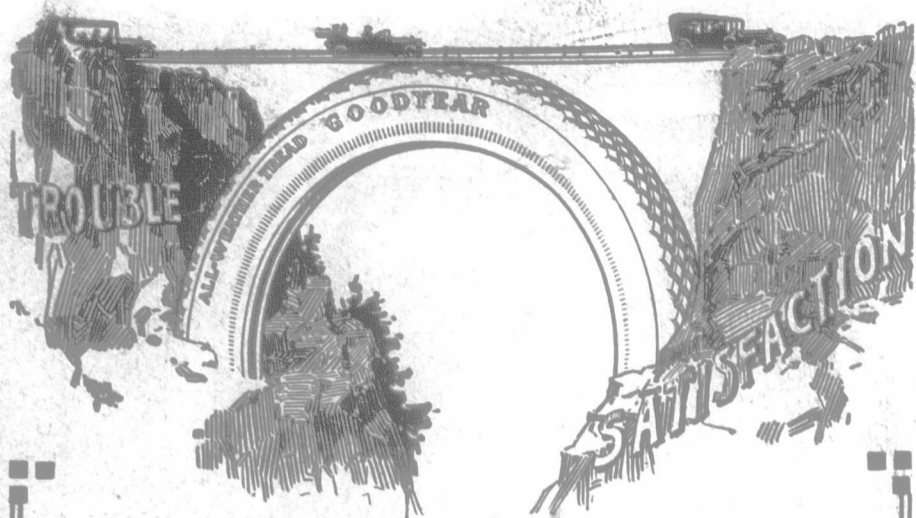
6th. By supplying you with carefully-worked estimates that will insure a low cost of telephone construction, and at the same time make certain of the system operating on a paying and efficient basis.

7th. By making prompt shipments, so that there will be no delays in proceeding with the work.

8th. By keeping in close touch with you after the system is in operation, and affording you intelligent co-operation in any way that may be desired.

This company has assisted many other independent systems to get started in the right way. It is only by their success that we ourselves are successful, because we depend on the independent systems for our business. If you are thinking of starting a telephone system in your locality, you need our services. If there is an independent telephone system in your locality, and it is not using our equipment, write and ask about our Free Trial Offer.

Canadian Independent Telephone Co., Limited
20 Duncan Street TORONTO



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Because, what we save by cutting factory costs we pass on to Goodyear users. Insist on trying the tire that comes closest to being trouble-proof. Any dealer can supply you.

The Goodyear Tire & Rubber Co. of Canada, Limited
Makers of Truck, Motorcycle, Carriage and Bicycle Tires and Rubber Belts, Hoses and Packing
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The Goodyear Tire & Rubber Co. of Canada, Limited, has no connection with any other Canadian company using the Goodyear name (199)

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Running water in the stables for the horses and cattle—Think of the great amount of back-breaking labor at the pump this saves you.

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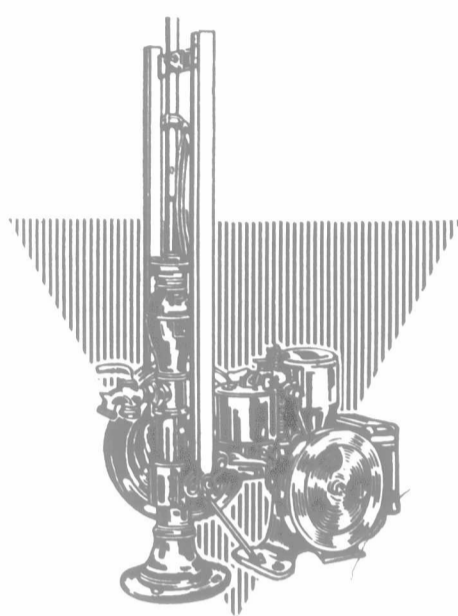
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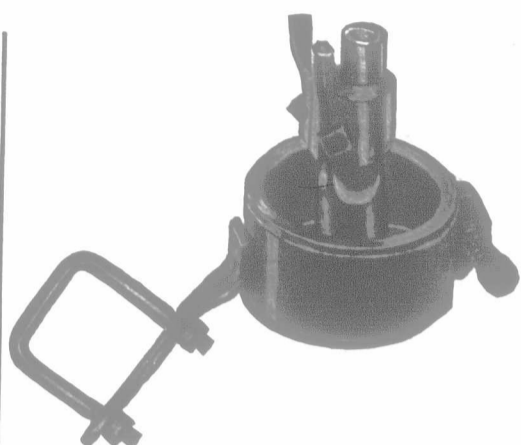


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C. E. HORNING, District Passenger Agent,
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Write for Bulletin No. 1011.

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THE DESIGNERS OF THE ALPHA were not satisfied to build an engine that would merely reduce farm work; they went a step further and developed an engine, that in meeting every farm requirement, also reduced the work and cost of operating an engine.

ANY MAN, WOMAN OR CHILD who can drive a horse can operate an Alpha. Simply oil it, turn on the fuel, give the fly wheel a turn and it will plug along all day, sawing wood, pumping water, grinding feed, cutting fodder or silage. It will be a big help to your wife as she can use it to run the cream separator, churn and washing machine; in fact, the entire family will find this engine a great time and labor saver.

THE ALPHA HAS NO BATTERIES to weaken or cause trouble. It starts and operates on a simple, low speed magneto. The carburetor acts perfectly with either gasoline or kerosene fuel. The ignition system is the simplest and most reliable ever used on an engine; you will understand its operation at a glance and never have any trouble in getting a fat hot spark.

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I thought that roof mighty expensive**

"It took faith, and lots of it, to lay out the money for that roof. Now I know it was the best kind of investment."

Leaving the economy of Preston Shingles out of the question, there are two main reasons why they stand high among the farmers of Canada.

1st—They are galvanized to meet the British Government test, the hardest test we know of. That guarantees that the Metal itself is the very best.

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Before you make your plans—before you cut a stick of timber, get our big FREE books on farm building. Everything you want to know about fire proof construction, about stable arrangement, location, lighting and ventilation is clearly told. You will want these books. Send for them today. Please use the coupon.

The Metal Shingle & Siding Co., Limited, Preston, Ont.

Farmer's Advocate.



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VOL. L.

LONDON, ONTARIO, JUNE 24, 1915.

No. 1187

EDITORIAL.

Save this issue with the others. The index is valuable.

What's the use of weed-growing on land worth \$100 per acre?

A paddock for the bull will mean more and stronger calves.

The stock farm's equipment is not complete unless a silo is there.

Summer silage and soiling crops will soon be getting in their best work.

If you cannot keep the summer-fallow clean during the summer sow buckwheat now.

Have you tried home-grown mangel seed? It seems to do well on the O. A. C. plots.

All signs point to very high-priced meat. The man who has held on to his breeding stock will win.

The "yellow" newspapers of 1915 do not need a special, daily coat of paint. Every day is a day of thrills.

Have you spudded out the last Canada thistle from the grain field and uprooted the last dock from the meadow?

A clean farm with good, comfortable buildings and well-kept grounds is more to be desired than much money in the bank.

Free range on cultivated soil for chicks improves the flock. The corn field, after the corn is growing well, is just the place.

Spudding thistles is rather tedious work. Nevertheless it makes clean fields, and clean fields are a first step toward good farming.

Only the farmer who has had to put up with city life can fully appreciate the farm in June, or, for that matter, in any other month.

Motorists remark that good roads generally go with good farms. Is this true of your section? If not make both the very best. It pays.

No "Made in Germany" weather instrument is equal to the cow with a milk-pail attachment as a combination thermometer and barometer.

German Kultur has been pictured as a submarine lurking in deep water to torpedo the great passenger ship, Civilization. How true!

Those safe at home must not forget the men who are fighting at the front. There will be increasing need for those things which bring comfort to the soldiers in the trenches. Remember "The Dollar Chain."

Many a boy has parted company with the farm for the reason that no parent, no teacher thought it worth while to explain to him with some patient interest the things he was working with. Something more than unmeaning toil is needed to inspire the average youth.

The Man With the Hoe.

Ripples of merry derision once greeted the idea that labor is a thing of joy, expressed from the platform of a big Boston meeting of working people. Joy is catalogued commonly as something, apart from work, divorced by modern tendencies—a separation accelerated by the schools. Manual labor, if not another name for drudgery, is bracketed in the same class. "Those who think must govern those who toil." Getting on in the world means acquiring possession of the output of the Royal Mint or the green paper of the banks. These go to the soft-handed. Joy is a purchasable commodity. Thus runs the reasoning. Taboo manual labor. If as a last resort for getting a living or a competence, slide through the daily grind as quickly as possible. Throw off the jugs the minute the bell rings. Machinery, piece-work and departmentalism tends to a deadening monotony. But if an element of personal interest enters, then a satisfaction at least next door to joy can perhaps be extracted from making watches, or plows or selling shirts. Even drudgery has some compensation as discipline. The old association of drudgery with farming clings tenaciously, but happily new views are securing a hold. Millet's "man with the hoe," bowed with the weight of centuries, is a conception once largely true, but now passing. Farming is the ideal occupation, because it combines manual effort with a maximum of intelligence. Physical labor and knowledge make a balanced and winning team. To leave behind a clean row or field of corn and roots is more than drudgery. The mastery of weeds is something to be proud of, and every stroke has made toward profit. To take another step higher. The toil involved in producing No. 21 barley, the Marquis wheat, a better strain of corn, or a more perfect, early ripening and prolific tomato delivers manual labor from drudgery and gives it a place of distinction. To look over luxuriant ground lately bare and rough is no trifling reward for honest toil invested with the spirit of Him who said, "and I work." This is a working world. Who shall say that the bee leads a joyless existence? The joy of farm life is reality, for it deals creatively with living things.

A Word for the Old Cow.

At what age should a milk cow be turned away to the butcher as unprofitable in the herd? This is a question which the cow herself should answer in her yearly production. As a general thing a cow is considered an old cow when she has reached nine or ten years, but at this age some cows have been known to just begin their heaviest production. Last week in a report of a trip to the Ontario Agricultural College we cited a case of a cow which has averaged, during the past eight years, 10,001 lbs. of milk per year, and which in her ten-year-old form gave 13,500 lbs. of milk, the largest amount during any one year of her life. She is now eleven years old, and is likely to beat her last year's record. Another cow gave an average of over 10,000 lbs. during the past six years, and this year in five and a half months has given over 10,000 lbs., and is still giving 50 lbs. per day. This is just another indication that the only way to correctly size up a dairy cow is by using the scales and the test. The owner cannot go by feed fed, or by the age of the animal. The cow may be old but if she is still capable of producing 10,000 or 13,000

lbs. of milk or more than she has ever produced in the past, it would not be in the best interests of the herd to turn her away to the butcher and attempt to fill her place with a young, untried animal which may never reach as high a production as the old cow has done.

Besides the actual production of milk, an old cow is often a much better breeder than is a heifer or younger cow. Some of the best calves ever produced have been from cows of mature years, in fact getting old. As long as there is profitable production at the pail or through young stock in the old cow she should not be turned away from the herd. The two cows mentioned are old in years, but just coming to their prime as producers. Just now, when there is so much agitation over increased production and the shortage of nearly all classes of live stock, would be a good time to look into the matter and see just where the old cow stands as compared with the younger cows in the real test of milk production and value of breeding stock produced. Know the old cow before turning her away to the butcher. Give her what her performance indicates she deserves.

The Place of the Good Grade.

There are those who believe that a grade animal has no place in any herd or flock, but conditions are such in Canada that by far the largest percentage of live stock must for years to come be grades. The biggest need is for enough high-class, pure-bred sires to keep the standard of these grade herds improving year after year, and to get these sires a large number of high-class, pure-bred herds and flocks must be maintained. Every stockman must make a beginning somewhere, and for the average man it is much safer to start with grades, learn the business, and then if he desires begin operations with pure-breds. Some grades may be developed in form and in production to such an extent as to rival the best individuals in the pure-bred herds of the breed represented. A few days ago it was our privilege to see a grade Holstein cow which in one month has given 2,208 lbs. of milk and 92.93 lbs. of butter-fat. This cow has made the highest monthly record ever made by any cow of any breed, pure-bred or cross, at the Ontario Agricultural College where many breeds are kept. She has no pedigree, but she is a very high-grade cow with blood practically pure Holstein. However, she must pass as a grade. The point we wish to make is that it is possible for a man operating with grade animals and using the very best of available sires, generation after generation, to work up a herd which will prove very valuable as breeders and producers. Of course it is necessary, if high prices are to be obtained, to follow the breeding of pure-breds, but there will always be a place for the grade, and that place a big one. There is no room, however, for the inferior class of scrub cross-breds and mongrels found on many farms. Many a man believes that he cannot afford pure-bred stock. Experience should, soon teach him that he cannot afford scrubs of any kind. A grade animal is not necessarily an inferior individual, and the cow in question is a good example of what can be reached by the systematic use of pure-bred sires in the herd and the culling out of inferior calves and cows, keeping only those whose individuality and production warrant their remaining in the breeding herd. All grades are not good grades, neither are

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THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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all grades scrubs. What this cow has done should prove an incentive to owners of grade cattle to take more interest in their herds and improve them just as if they were pure-breds. The pure-bred sire is indispensable in any herd, and the pure-bred herd is indispensable in any county, but the good grade must form the bulk.

Reliable Crop Reports.

Crop reports are of more value to readers than is information about any other enterprise, industry or operation, except, perhaps, war. The sporting page has its patrons, the comic section its devotee, but those who finance, manufacture, buy, sell, govern or rule must needs keep informed regarding crops. Upon the prospects mirrored on the acres of the country depends the whole machinery and financial status of the nation. The kernel of wheat and its innumerable contemporaries which are sown in the spring-time are responsible to a large extent for the industrial activities throughout Canada, but how much more important are the acres of grass that must nourish the 19,190,000 head of horses, cattle and sheep, and to a large extent indirectly sustain over 6,000,000 head of swine.

The wheat crop has a wonderful influence upon activities the world over, because of its availability for human food and the various lines of endeavor made active by its movement; yet other farm crops are quite as important when we consider the enormous significance of the manifold branches of industry dependant on the outcome. The wheels of our factories are now receiving extra oil because conditions in the West are so promising. A bumper crop will bring prosperity to the people, increase their buying power and affect the agricultural and industrial life of Canada.

Climatic conditions are very largely responsible for the aspects in the country, upon which

the prosperity of all other branches of public life depends. How necessary is it then, that those interested in work apart from actual farming should be correctly informed. We have through different departments of our Governments a means of learning how conditions are from time to time, and this information is just as reliable as are the sources from whence it comes. Requests are sent out by the various branches of the Provincial and Federal Government asking for a report on crop conditions. It is the duty of producers to respond accurately and to the full extent of their knowledge.

A bull or bear representative from a large wheat exchange may take a comfortable night trip in a pullman through the country and bring back a report favorable to his own particular interests. He sees to it that such report is heralded throughout the country, reaching both producer and dealer in wheat. This is of a prejudicial complexion, and if the grower would see to it that untainted reports are submitted to the Governments and to the Press, his business would be strengthened while the uncertainty in other branches would be dissipated.

At the Fourth Conference of the Fruit Growers of Canada, held at Grimsby, Ont., last September, the late Robt. Thompson, then Manager of the St. Catharines Cold Storage and Forwarding Co., advocated that the Government should collect information regarding the fruit crop through an unprejudiced representative. Using the cherry crop of 1914 as an example Mr. Thompson said: "I do not suppose there is one man in a thousand in this country who would have admitted that there was a large crop of cherries. The growers do not want to admit that the crop is large, because they have a false impression that if they made such admission the price would be lower, but as a matter of fact it is the other way." The philosophy of this statement is very plain. If consumers expect a large crop and reasonably low prices demand will be increased to such an extent that the revenue to the producer will be far in excess of that when the buying public expect high prices, the grower finds a large percentage of the crop on his hands as the cherry grower did in 1914.

It is the duty and to the advantage of agriculturists to see that accurate crop reports are submitted. Whatever the medium may be through which the information reaches the reader, the producer himself is the most reliable source. May the information be unbiased.

What We Owe

As Canadians at home go about their daily routine of work, worry and pleasure, it is very easy to forget the men in khaki at the front—the men who have made the supreme sacrifice and left father, mother, brother, sister, wife and small children, or sweetheart—men who have put off civilian clothes and put on the King's uniform—men who have left all and risked all that those who remain behind may be safe from the monster which rolled over Belgium leaving nothing but desolation, destruction and death in its wake. Where would we be to-day were it not for the boys in khaki? These men stand between their homes, their families, all Canadians and the grey-clad Prussians who wreak vengeance on innocent and helpless non-combatants, including women and children. The debt those of us who stay at home owe the men who have gone, and are going, to fight our battles can never be paid. It will take more than a patriotic outburst of enthusiasm as the troops swing by to square with those whose lives have been laid down that we may live in peace and plenty, enjoying the freedom they have saved for us. It behooves every stay-at-home to make what sacrifice he can to help our armies in the field—to give some measure of relief to the terrible suffering caused by this awful conflict. If we cannot go we must pay. No amount of money we can give could compare to the giving of a life, an arm or a leg in the cause of freedom and right. The other day a business man remarked that he had given \$400 to the patriotic fund, and while he could ill afford it, according to his own words, he felt that he might have given his only son. He could give the money much more easily than he could part with his son. Quite true, and all should give freely and willingly. Thousands upon thousands have given sons, brothers, husbands and sweethearts, and just now all Canadians should bend every effort to supply all the munitions, all the

comforts, all the encouragement possible to the boys on the firing line or about to leave for the front. When each one does his or her own individual duty the load will be lighter for the fighting heroes. It is our duty to help. All cannot fight, but everyone can help.

Nature's Diary.

A. B. Klugh, M.A.

A bird whose visits to the flower-garden always excite interest is the Humming-bird. The many ways in which this feathered jewel differs from other birds accounts for the interest which it arouses—its dainty sipping of nectar from the blossoms whilst it hovers in front of them, the humming sound made by the tiny wings which vibrate so rapidly that one does not see wings at all only a blur, and the iridescent flashing of its plumage.

In the East we have but one species of Humming-bird, the Ruby-throated, though many people are led to believe that we have two, because of the fact that the male has a ruby throat, while in the female the throat is white. In both sexes the back is green.

The Ruby-throated Humming-bird builds a neat, compact little nest, placing it on a limb, and decorates the outside of the nest with lichens, thus making it very inconspicuous and very liable to be passed over as a knot. In this nest it deposits two tiny eggs. On the Pacific Coast the common Humming-bird is the Rufus-backed, in which the back is copper-red, with a beautiful iridescence. Neither of these species have any song, a sharp and often long-continued squeaking being their only vocal effort.

The other day I ran across one of those floral effects which make the heart of the nature-lover sing. In an open space near the shore of Lake Huron the ground was covered with huge masses of red, white and blue. The red was the Painted-cup, a flower perhaps more intensely scarlet than any other blossom we have. We have numbers of pink, rose-purple, carmine, and deep red flowers but very few scarlet ones. The white was the Fringe-leaved Houstonia, a pretty little, low-growing plant. The blue was the Blue-eyed Grass.

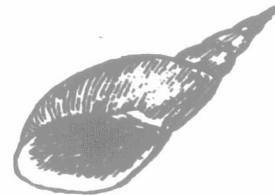


Fig. 1.—Lymnaea.



Fig. 2.—Planorbis.

This latter is of course not really a grass at all, but one of the Iris Family, the name probably originating from its very narrow, grass-like leaves. I took a color-photograph of the scene, so that in the winter days when wild-flowers are no more, I can see it not only in my mind's eye but on the screen.

In shallow water at the margins of lakes and ponds and on the bottoms of pools we find many different species of fresh-water snails. Though there are many species they belong to two main types—one with a long-drawn-out spiral, as shown in fig. 1, and which we may term 'the Lymnaea type, from the name of the Genus to which most of the species belong, and the other, as shown in fig. 2, the Planorbis type, in which the spiral is practically flat. These snails belong to the Mollusca that Phylum (or grand division of the Animal Kingdom) which includes the Clams, Oysters, Whelks, and all other shell-fish, a group which is represented in the sea by an immense host of species, and which also includes the land snails.

The fresh-water snails feed very largely on green Algae, and are in their turn used as food by a good many species of fishes. Their eggs are found in gelatinous masses, either floating free in the water or attached to the stems and leaves of aquatic plants.

The species shown in fig. 2 is *Planorbis campanulatus*, the specific name referring to the bell-shaped aperture of the shell. This is a very common species, but there are other species equally common which differ from *campanulatus* in the shape of the aperture and in the number of whorls in the spiral.

Fig. 1 is *Lymnaea stagnalis*, the specific name here referring to the character of the water in which it is usually found. Other common species of this genus have shorter spires.

Some day, when we have more observers of the wild life of our country we shall have common names for these common but little-known forms, but at present we have only the scientific names to call them by. And when the study of nature becomes more widely spread we shall have a great agency for keeping the boy, and the girl, on the farm, for those who love to study the wild things will not readily exchange the country with its wealth of life for the "desert" of the city.

THE HORSE.

The Brood Mare Thin But Useful.

A few days ago we paid a visit to one of the leading stock farms in Wellington county, and on our way to the pasture field, wherein grazes daily some of the cream of the Shorthorn blood of Canada, we passed a small paddock in which a big Clydesdale brood mare was pasturing just previous to foaling. The owner remarked that she was a very good mare but in low condition. We stopped to take a look. The mare had, one of the best sets of feet and legs seen for some time, but she was thin and would appear to the average man rather plain. The plainness was all due to low condition, but, as her owner pointed out, she is a brood mare and is kept on the place for the work she will do and the colts she will raise. She has proven a very useful mare and a successful breeder largely because she is not kept fat and is made do the ordinary farm work along with other work horses. She is raising some excellent colts and is yearly proving valuable to her owner, who made the statement that the only way he could get strong, living colts was by keeping the mare down in flesh and making her do her share of the farm work. There should be a point in this for the man who has had what he is always ready to call "bad luck" with mares kept in too high condition and bled up too much during their period of pregnancy. It is very often the case that a grade mare, commonly called a scrub on the farm, which gets very little care and is forced to work most of the time has far better success with her colts than has the registered or perhaps imported mare which does no work to speak of, and is fed heavily on grain year in and year out. If more of the real good mares of the country were made to do some work and were not fed so many oats and so much stronger grain, there would be less trouble with mares failing to conceive, and also mares losing colts at time of parturition or producing very weak foals which give trouble to raise. Every mare should do light work, preferably up very close to the time of foaling. After foaling she should have rest for at least two or three weeks, generally longer. Some who have plenty horses to do the summer work prefer to turn the mare with her foal away to grass for the entire summer. This gives the colt a good chance to get a start. No mare should be called upon to do much heavy work while nursing a foal. The main thing is to give work enough during the winter and spring up to foaling time to insure plenty of exercise, and a mare a little thin in flesh is more likely to produce a strong, living foal than one over-loaded with fat.

Another point brought out in this instance was the use of a small field or grass plot near the building. This particular mare was expected to foal any day when we saw her. The grass plot right beside the barn made it an easy matter for the stockman to watch her, and, after the colt is foaled, during the period in which it is not safe to allow the youngster to get wet, the paddock is very handy, being situated so that the mare and foal may be quickly run into the stable when a passing shower comes up.

Horse Sense.

While riding in an automobile a few days ago, the writer met a democrat wagon drawn by a team of young, lifey, light horses. As the machine neared the team, the driver of the latter lifted his hand signalling the car to stop, which was done immediately. Alongside the car one of the men in the wagon said that they only wished to get the colts accustomed to automobiles. The team was driven very close to the machine. No whip was necessary and no great excitement was evidenced on the part of the driver or any one of the six or seven occupants of the rig. Quietly speaking subdued words of confidence to his fine young team the driver drew them up close to the car and they sniffed and pricked up their pointed ears in wonder, but not in fright. They passed safely and we went on our way. But what a difference in methods of sending horses past objects strange to them! Another man yells, curses and whips and gets into endless trouble. He rattles his horses; puts them on edge and blames them and the object of which they are scared for everything that happens, when in reality he is often to blame for most of the trouble himself. We admired the quiet manner in which this particular driver handled a spirited team, which, under this treatment, will soon become quiet and dependable, though lifey. There are more horses ruined by bad management than by all other means combined. Be quiet and sensible with the horses, and they will be quiet and sensible with you.

Horses Shy; Why?

The other day there came under our notice a young horse which foolishly became very frightened at a shining milk can sitting at the side of the road. The driver, either bad tempered or a poor horseman, feverishly yanked out the whip and standing up in the front of his democrat slashed and lashed the poor frightened colt, making a far sorer exhibition of his lack of common sense than the horse had done of his lack of horse sense the result of bad handling and poor horsemanship.

Picking up "The Farmer's Advocate and Home Journal" of Winnipeg, Man., we found that "Dell Grattan" had given some causes and cures for horses shying. We hope that the man who abused the colt reads this and also that every other man who does not know how to handle a colt which is inclined to shy takes a lesson therefrom.

Shying is probably the most frequent of the driver's bad habits or vices that are met with in horses. Certainly it is amongst the most common forms of vice, and it also ranks as one of the worst, being extremely troublesome to contend with, and when once it has become ingrained in a horse it is generally found to be incurable. In bad cases of shying, moreover, a distant element of danger is involved; nasty, and sometimes fatal, accidents have been caused through it. It is therefore, not surprising that shyers should be held in such bad repute, and that no one will willingly buy one if he can help it, or that the fact of a horse being addicted to this propensity should much depreciate its value in the market. There are various causes which give rise to the habit, the principle one undoubtedly being nervousness or fear, although confirmed shyers will in many cases shy more from sheer force of habit when meeting an unfamiliar object than for any other more tangible reason. Very often the vice is acquired solely as the result of bad management on the part of the driver or through incompetent breaking, or if not actually originated in this way, these particular causes are in a great many cases operative in developing, intensifying and confirming the trouble, this being the case a good deal more often than is commonly suspected.

It is manifestly quite wrong to punish a colt for shying at unfamiliar sights, yet how generally

kindness. If possible, it should be allowed to have a good look at the object at close quarters, or even to smell it, so that it may convince itself of its harmlessness. This may seem slow process and try one's patience, but it is the quickest in the end, for it will save much future trouble, and is most effective in quickly obliterating the natural inclination to shy at strange sights, inherent in most young horses.

Among the reasons commonly assigned why horses shy is defective vision, but this cause probably does not give rise to the evil nearly as frequently as is generally imagined, if indeed it operates as an inducing cause at all, except in quite isolated cases. Minor defects of the eyesight, which merely cause distortion, but do not actually impede the sight, are most unlikely to engender shying, and it is only in cases where the vision is so defective that the horse cannot really see properly, or is partially blinded, that this disability might conceivably induce the habit, although even here the probability of this contingency is much discounted, if not entirely refuted, by the fact that the wearing of blinkers, which greatly impairs a horse's field of vision, does not lead to shying, but that on the contrary the use of blinkers is specially resorted to with the object of obviating or reducing the tendency to shy in harness horses. It is also a well-known fact that horses generally are much less liable to shy when driven or ridden in the dark than during the day time, and frequently even confirmed shiers are found not to shy at all when it is dark. All these facts indubitably point to the conclusion that in most cases where defective eyesight is alleged to be at the bottom of the habit, the real explanation of the trouble is to be sought in nervousness or timidity or in some other cause of obscure nature.

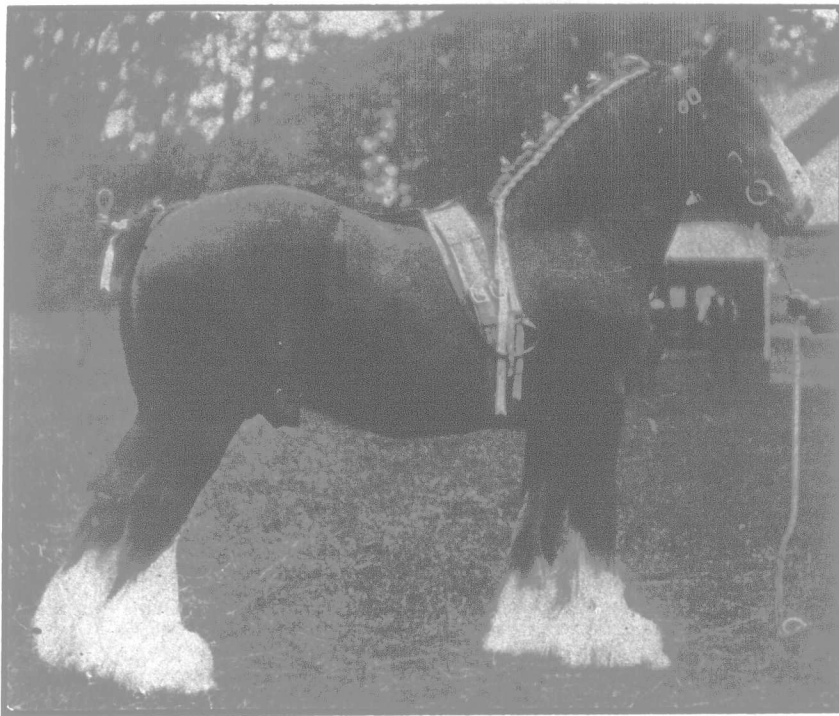
LIVE STOCK.

A Costly Mistake.

In connection with the outbreak of foot-and-mouth disease in the United States it is generally admitted that "somebody blundered." Upon its first appearance it was considered an inconsequential trouble affecting only the mouth of the animal, but it has since cost the United States approximately ten million dollars; it caused the Dairy-Show Cattle of 1914, numbering 750 and among which was one Canadian herd, to be quarantined for about three-quarters of a year; it precluded the possibility of holding the International Fat Stock Show last fall; it has tied up States and stock yards; it has postponed sales; it has disturbed the market for beef and breeding cattle; in fact the foot-and-mouth disease demoralized the greatest industry of the United States in such a way that it can only regain its previous stability through time.

Reports are current which, if proved true, will tend to make the veterinary profession rather unpopular in the State of Michigan where violent outbreaks got beyond the limits of a really inconsequential disease. Its introduction to the Chicago Stock Yards was also sadly regretted, and it appears from press discussions that stockmen are not slow to lay considerable blame at the door of the administration of the live-stock industry. Serum, it is understood, has been used successfully in Germany for a number of years in the prevention of foot-and-mouth disease. When the breeders inquired why such a serum was not used in the United States some veterinarians replied that it was "too expensive for stockmen to use." The cost would be \$7.50 per animal, and the breeders thought it should have been left with them to decide whether they could or could not afford to protect their pure-bred stock at that expense. Animal products come into the United States from foreign countries where foot-and-mouth disease is admittedly beyond control. This breeders declared should be guarded against, but at present they are more particularly concerned with the scourge at home and what they consider its unwarranted spread.

When the whole matter is cleared up it may result in the vesting of more authority with the breeders of live stock, and awakening the veterinary profession to a realization of the importance of the industry and their relation to it.



Blaisdon Draughtsman.

Two-year-old Shire stallion. First at the Bath and West.

is punishment meted out when this occurs, the animal being pulled about with the bit, roughly spoken to, and forced to pass the object of which it is afraid at the point of the whip, probably receiving a further dose of unmerited punishment after it has passed it. The results following on this wrong-headed procedure are correspondingly unfortunate, for its effect simply is to upset the young horse still further and to accentuate its nervousness, so rendering it more troublesome and intractable. It also quickly learns to associate the infliction of punishment with the act of shying, and thus is caused to shy in worse fashion on future occasions, because of its fear of being punished, while often that fear leads to its trying to bolt after shying, which is a very dangerous trick.

The kind of mismanagement alluded to is just the thing that is likely to develop the so-to-speak innocent form of shying to which young colts are addicted into a permanent, incurable and dangerous habit, and in many cases it does so. The proper way to deal with a young horse that shies from inexperience, nervousness or diffidence is to eschew all violent methods and to resort to

Saving the Valuable Reacters.

During recent years very much has been written, and cattlemen have been greatly concerned about the increased prevalence of tuberculosis in the dairy and beef herds in America. Although rather an expensive method and one which cannot be easily carried out on many farms, the Bang system of treating this disease should meet with considerable favor, and if properly followed should mean a great saving in the herds and in the end, practically exterminate the disease from the premises. It is, as a general thing, found that some of the best cows in the herd react when subjected to tuberculin test. These animals do not often show any clinical symptoms of the disease. To all outward appearances they are healthy, robust and ready to take their feed and turn it into valuable milk or beef, leaving a handsome profit to the owners; but in their system lurks the deadly germ which may be spread to the valuable calves bred from them and to other animals composing the herd. If the disease is to be stamped out on any one farm where it has made its appearance without the wholesale slaughter of the herd, then a system of isolation must be followed. By testing all the cows carefully, and this work should always be done by a competent person, and placing those which react in an isolated stable, from which they are never allowed with the other stock, or in lots or fields where the other animals feed or graze, having only a small run where they may be let out nights during the summer and keeping all individuals there so long as they react, the herd may soon be cleaned of the disease. This does not remove the valuable cow from the breeding herd. It has been demonstrated that the calf from an affected cow is not diseased when dropped, so it is necessary that all calves from the isolated stable be removed from their dams immediately they are born and before they have had any chance to partake of the dam's milk. These calves are taken to a clean stable and fed on milk from the cows of the herd which do not react. The youngsters grow up strong and healthy and as a general thing prove, when mature, to be non-reactors, and so the valuable breeding cows of the herd which may react to the tuberculin test are kept in the herd as the foundation for the herd of the future, while at the same time as producers they may more than pay their way, for it is very often the case that some of the highest producers are reactors. In this manner high-priced cows which react are not a total loss. Their stock may be kept year after year if precautions are taken to get them away from the isolated stable as outlined. We recently saw a herd being operated on this plan and successfully. In fact, the cows in the isolated stable were among the best on the farm and were more than paying their way at the pail, besides each year giving birth to a calf which is proving valuable in the clean herd operated as outlined.

Silage vs. Soiling Crops.

Experiments conducted at the University of Wisconsin have proven that silage in summer has about the same feeding value as soiling crops. During the last three summers the dairy herd at the institution was divided into two lots. The division was made so the lots would resemble each other in weight and production. In addition to pasture and a limited amount of hay and grain, one lot was fed silage throughout the season, and the other a succession of soiling crops such as red clover, peas and oats, and green maize. The production of milk and butter-fat was practically the same in both lots.

It is considered that corn can be produced more cheaply than soiling crops, and if a farmer can solve the problem of building a silo, a cheaper source of succulent fodder can be established than through the soiling-crop system. In connection with the operation one should consider the cutting and feeding of the soiling crop in summer, or the building of fences where the cattle are allowed to run in the crop for a short time each day. Everything being considered the silo and corn silage are probably as cheap and efficient a combination as are soiling crops.

The farmer who does not appreciate the experimental work carried on at the leading experiment stations knows nothing of that work. If he is an intelligent man, and willing to be convinced all that is necessary is a visit to one of these stations where those in charge will be glad to explain the work. Agricultural pessimists are made optimists in this way.

Canadians as Meat Eaters.

The inspection of slaughter houses where meat and canned goods are prepared for interprovincial or foreign trade is responsible for some interesting figures in connection with the slaughter and consumption of meat in Canada. Under the Meat and Canned Foods Act of 1907 inspection is carried out in all plants where the products are to be consumed in other provinces or in other countries. Meats and foods other than those in inspected establishments and consumed within the same province as that in which the animals are slaughtered do not at present come within the provisions of the Act. The following table appearing in the Census and Statistics Monthly for May indicates the movement of cattle, sheep and swine, slaughtered under the inspection. These figures, to a large extent, explain the decrease in our export trade of live stock.

ANIMALS SLAUGHTERED UNDER INSPECTION ACT.

Year ended March 31	Cattle	Sheep	Swine
1909	298,241	191,792	1,532,796
1910	384,789	257,049	1,261,496
1911	411,308	329,017	1,452,237
1912	408,401	376,437	1,852,997
1913	450,390	455,647	1,607,741
1914	531,994	499,284	1,799,060

The question relating to the consumption of meat in Canada has been investigated by the officers of the Meat Inspection Division of the Health of Animals Branch. Their calculations are based upon the census returns of animals slaughtered and sold off farms in 1910, upon the exports and imports of meat for the same year, and upon the meat inspection statistics. They show that in 1910 the total production of beef for consumption in Canada was about 426,451,000 lbs., of mutton 63,582,000 lbs., and of pork 466,955,000 lbs., or a total for the three descriptions of 956,988,000 lbs. For an estimated



Tamworth Sow.

Winner of first place at the Bath and West.

population in 1910 of 7,000,000 the per capita consumption in Canada works out to 61 lbs. of beef, 9 lbs. of mutton, and 66½ lbs. of pork, or 136½ lbs. of all kinds of meat.

An estimate of the per capita consumption of meat in the United States was given as 172 lbs. for 1909, and from the information to hand it appears that Canada's neighbor is the greatest consumer of meats per capita. Other countries are given as follows: United Kingdom, 119 lbs.; France, 80 lbs.; Germany, 113 lbs.; Argentina, 140 lbs.; Denmark, 76 lbs.; Norway and Sweden, 74 lbs.; Belgium, 70 lbs.; Austria-Hungary, 64 lbs.; Russia, 50 lbs., and Spain, 49 lbs.

The Theory of Baby Beef.

There are three factors or problems which every breeder and maker of beef must contend with. Apart from these it is expected that only the right kind of parent stock will be kept, and if a farmer has been using good judgment in breeding for the past ten years there is no reason why the female element in the herd should not be suitable for rearing the proper kind of calves. This qualification could be acquired with very little additional expense, for in one decade females or males could be obtained that would be practically pure bred. Starting with just cows ten years ago it would be possible in the meantime to have reared four generations, the last of which should come quite up to the standard for beef production. However, this may not be the condition on many farms, but if the females conform tolerably well to beef conformation they should, when mated with a bull of the right stamp, throw calves suitable for baby beef. Assuming then that the farmer is equipped with a herd of cows for the purpose, the three factors which confront him are: amount of available feed, number of growing cattle, and size of the breeding herd. Like most farm operations these

three problems are dependant one upon the other. It is generally considered that beef cattle require less attention than many classes of other live stock, and this particular phase of the enterprise would allow as much time in the fields as is customary on the farm. The production of feed then would vary with systems of rotation and cultivation as well as with the fertility and area of the land tilled.

The number of growing stock directly influences the size of the breeding herd. Where it is the practice to finish off the steers and heifers at from two to three years of age there is always the yearling to be considered, and the yearlings with the feeding cattle will do away with a large quantity of feed and grass. This necessitates the reduction of the breeding herd, for only so many cattle can be kept per acre. When the young stock is disposed of when from 14 to 16 months of age, much of which time the ration will be milk, it is evident that all fodder and grain will be disposed of to the best advantage. There will be more calves raised and more pounds of beef produced on a farm where baby beef is the specialty than where older cattle are finished.

The cost of a pound of gain has never been given sufficient consideration, for upon it depends the profit of feeding cattle. All experience and teaching point to the fact that the same amount of feed will produce more pounds of gain in the young than in the older animal. Henry in "Feeds and Feeding" says: "Gain in body substances by well-nourished young animals is relatively much greater than by mature animals even when fattening. The unweaned calf may increase 2 to 3 lbs. daily for each 100 lbs. of body weight, while a gain of 0.3 to 0.4 lbs. daily per 100 lbs. of body weight is large for the mature fattening ox. The more rapid increase in weight of young animals is due to several causes—their flesh contains more water; their food is more digestible and concentrated; and they consume more food in proportion to live weight. As growth continues, the total quantity of food eaten increases, but the amount per 1,000 lbs. live weight diminishes. The daily gain and the consequent returns from food consumed also steadily decrease until maturity is reached, when there is no further gain whatever unless from the laying on of fat."

The problems met with in the beef business are most successfully solved by the baby-beef proposition. With that method of beef production feed will produce the most possible pounds of gain while more breeding stock may at the same time be maintained. The pasture, grain and fodder once used on the yearlings and two-year-olds will be consumed by the fattening calves and their dams, thus increasing the numbers of both fat cattle and breeding stock. In addition to this there are other factors which may be considered. One is the matter of capital, and in this case the turnover is quickest with the young, growing animal. Again open heifers at 14 to 16 months of age will fatten as quickly as the steer, and they have been selling for as much money.

Another important feature of the industry is the market. Of late years baby beef has sold along with prime steers, and sometimes more steady. One cannot get the same depth of fleshing on a 15-months-old steer or heifer as on an older animal, but the small cuts and tenderness of the meat recommends it to consumers. The prospects now are for high-priced beef for some time to come, and so long as this condition lasts just so long will butchers require carcasses from which small cuts can be conveniently taken. This is the theory of baby beef, but the theory has been derived from the practice itself. However, it must be remembered that young cattle must be fat. The market has no profitable place for thin, young cattle, except as stockers and feeders.

It does not generally prove profitable to make too many changes. If a person is wrong and knows he is wrong, then it is time for a change, but until assured of this fact it is better to stick to operations. We have seen stockmen change breeds every time the wind changes. When one breed booms then they buy and sell again as soon as prices for that particular breed drops. This keeps the breeder always on the wrong side of the fence. It is better to continue during low prices and have large herds and flocks ready when prices go upward and demand becomes keener as it invariably does.

Alfalfa that is planted from 5 to 10 feet on their cow day. Milk cow, and out nothing and butter. Like a bad milk found one week over-fed and I te hours on.

It ma tackled i corral, a minutes, I got a the way, just such It was n take a t long, and it as a l open and neighbor suggested warm wa cow's m her head Instead o had, wit used for as the st

Wheth the work elined to I put it I don't quickly; minutes v normal.

Later cow that and left o heard of her mout ting bett Of cou evidence, treatment or it may and exerc As to may be s neutraliz ly to gen harmful. case, the all the g have to credit.

While of colic were out mare in left. We the sudd colic. I wanted t then gav puzzled t must be what we still heal lb. of Put a bl and walk ten minut whether i but it ev

Perhap readers would no are plent count the problem, many of ary cases stance wh work, but with a many cas

Simple Remedies for Bloat and Colic.

Editor "The Farmer's Advocate":

Alfalfa is a great feed, and here, in a soil that is naturally adapted to it, there is much of it planted. The lot owners (whose places run from 5 to 20 acres) plant all the headridges and fence corners with it for pasturage, tethering their cows on this for two hours, three times a day. Many of the fruit growers keep just one cow, and with this for pasturage they need pay out nothing for feed, and have all the milk, cream and butter-they need.

Like fire, however, "it is a good servant, but a bad master," and many of our neighbors have found out the bad master part. Three of them in one week each lost a cow from gas caused by an over-feed of alfalfa. This morning it was raining and I tethered our cow out for her usual two hours on the alfalfa, and had our scare.

It may help some others to know how I tackled it. I first turned the cow into the corral, and chased her around it for 10 or 15 minutes, but found it was not improving any, so I got a neighbor on the 'phone (that 'phone, by the way, has paid for itself time after time in just such emergencies) and asked his treatment. It was new to me and I tried it. He said to take a twig about an inch through, and a foot long, and tie it into a halter or bridle, and use it as a bit, and thus force her to keep her mouth open and gradually bring up the grass. Another neighbor happened along just at the time, and he suggested soda, so I dissolved half a cup in warm water. There was a fine chance with the cow's mouth held open by the bit, and I tipped her head up and dumped the soda water down. Instead of the twig I just took a bridle that I had, with a very large rubber bit, that I had used for training a colt, and it worked as well as the stick could have done.

Whether it was the soda, or the bit that did the work, I can't say positively, though I am inclined to think it was the bit, from the fact that I put it in her mouth before I went for the soda. I don't see how the soda could have acted so quickly; something certainly did, for in a few minutes we could see her come right back to normal.

Later I found out that another man had a cow that they gave up as gone, and went away and left her, but before leaving, one of them had heard of this bit business, and he tied a chip in her mouth. Upon coming back later she was getting better, and finally she got up.

Of course these two cases are not conclusive evidence, as they were tried along with other treatment, and it may be that it merely assisted, or it may be that the other treatment of drenches and exercise merely assisted the bit.

As to the merits of soda as a drench, there may be some question, because, while it might neutralize the gas formed by alfalfa, it is as likely to generate another gas that might be as harmful. In the case of our cow, if that was the case, the bit did a double job, for she got rid of all the gas there was, and in that case we'll have to cheer for the bit, and give it double credit.

While on this subject I might mention a case of colic that we had with an in-foal mare. We were out for dinner at a neighbor's, and put the mare in a stall where some oat hay had been left. We had been feeding her on alfalfa, and the sudden change caused an acute attack of colic. We took her out and let her roll all she wanted to till we got some hot water on, and then gave her a drench. We were not a little puzzled to know what to do, as an in-foal mare must be handled with care. But we mixed up what we thought would be a harmless dose, but still healing and ought to give relief. We took 1 lb. of ginger in about a quart of hot milk. Put a blanket on the mare to keep her warm, and walked her up and down the yard;—in about ten minutes she was all right again. I can't say whether this is a scientifically correct treatment, but it evidently did the work.

Perhaps some of "The Farmer's Advocate" readers may have a more reliable cure, and still would not be liable to cause an abortion. There are plenty of colic cures, but few take into account the pregnant mares, and it is no small problem, yet one must act quickly, but avoid many of the drugs we know would work in ordinary cases. I am merely giving this as an instance where, virtually, it was heat that did the work, but perhaps you may feel that a treatment with a little more "zip" in it is necessary in many cases.

B. C. WALTER M. WRIGHT.

FARM.

It is Time to Start Haying.

Since the hard frosts which have occurred during the recent weeks and the comparative dry weather which prevailed for some time over a large section of Ontario, reports have come to hand that the hay crop is not going to be as heavy as was formerly expected. Hay is among the most important crops grown on most general farms of the country, and anything which points to a shortage should mean greater precautions and better methods in handling the crop and putting it in the barn. Clover is likely to be rather short and the old meadows, largely composed of

which are more frequent as a general thing late in June than they are on in July. Some delay cutting on this account, but one of the most successful farmers we have ever known, and one who has made many tons of choice hay each year remarked on a certain occasion that he never waited on weather to do anything. Some of his hay got wet but it was all cut at the proper time, and in the end he believes he was the gainer.

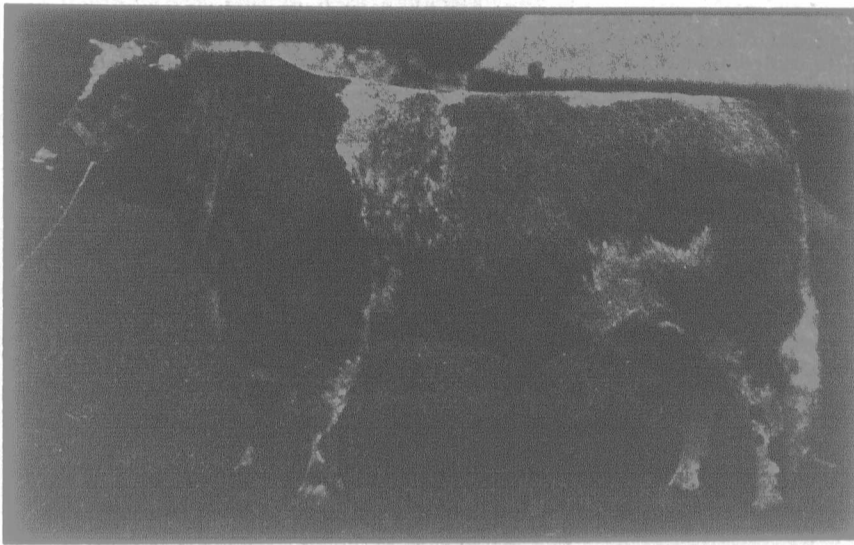
There was a time when the coming of haying was dreaded on the farm. In those days timothy was the main crop and it grew long and coarse, and had to be handled by hand from the grass stage to the hay loft. Times have changed. The mowing machine makes cutting a very short job; the tedder facilitates curing; the side-delivery rake and the loader do their part in getting the hay on to the wagon; and the hay fork and slings accomplish all the tugging part of placing the hay safely in the mow. These labor-saving devices have done away with all the drudgery of hay making.

The tedder is used to best advantage in heavy crops, especially of clover, and to kick the water out of any hay which may have received a heavy rain after being cut. For making hay fast nothing equals the tedder. Some practice cutting a strip of hay early in the morning, tedding it two or three times during the day, and rake up toward evening. This hay is usually ready to draw the next day soon after the dew is off.

Where the hay-tedder is used no coiling up is done unless bad weather threatens and the hay cannot be gotten into the barn before rain is likely to fall. With the loader it is, by many, considered practically essential to have a side-delivery rake, but where great care is practiced the old dump rake may be used and the wind-rows are kept small. It is not so difficult to do this where the crop is rather light. The side-delivery rake is claimed by some to be almost as valuable as a tedder in shaking up the swath, allowing the air to do its work in drying the hay. Where the loader is not in general use it is by many considered advisable to coil the hay, and let it stand a day or so before drawing. This undoubtedly makes the best hay possible and with very little lost time from the coiling, because there is so much gained in the time taken to pitch the hay on to the wagon. Some, where two pitchers are available, do the coiling with the dump rake, pulling the wind-rows into large piles. This works out all right where two men are available to pitch the hay, but where one man must do the work it makes rather strenuous labor for him, pulling the wads apart. Where this is practiced it is not advisable to pull too many rakesful together. The smaller the dumps the easier the hay is handled, and raking in this way saves a good deal of gathering up.

Hay forks and slings are now so common that no description is necessary. Where short slings are used or where the hay fork is operated it is well to build the load in sections. Build half the rack up and then the other half. This makes the load come off much more easily, and it does not bind nearly so much. In connection with loaders there is a new home-made device being used by some in the form of a divided rack, half of which is so constructed that it rolls back and forward, making it very handy to put on the entire load with the loader. The movable section is loaded and pulled up to the front of the rack forming the front half of the load, then the back half is built up. By using this, one man on the load, if he works hard, is sufficient, besides, of course, a boy to drive the team. It saves a man on the wagon, and this means considerable to the average farmer.

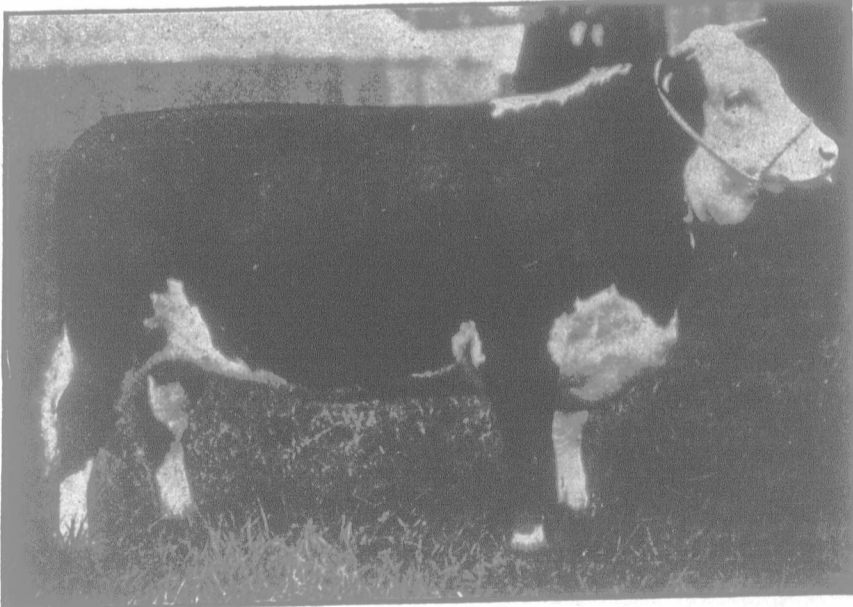
We have never seen figures from practical farmers giving an idea of what it costs to produce hay. If any of our readers can give this in-



Gainford Royal Champion.
Champion at the Bath and West.

timothy, were even harder hit by the frost than were the new seeds. A lighter crop of clover has some advantages. It is not so difficult to make good hay from it as from a very heavy stand where it is necessary to use the tedder frequently, and even then a part of the crop is often not very well cured. There is a tendency however, when a crop is backward, short and not likely to give a heavy yield to delay cutting too long. True, considerable growth is made after the clover commences to bloom, but if left until the bloom is all gone the feeding value of the crop is impaired and a loss sustained. When grains and feeds containing a high percentage of protein material are so high in price, it is very important that all the protein possible be saved

threatens and the hay cannot be gotten into the barn before rain is likely to fall. With the loader it is, by many, considered practically essential to have a side-delivery rake, but where great care is practiced the old dump rake may be used and the wind-rows are kept small. It is not so difficult to do this where the crop is rather light. The side-delivery rake is claimed by some to be almost as valuable as a tedder in shaking up the swath, allowing the air to do its work in drying the hay. Where the loader is not in general use it is by many considered advisable to coil the hay, and let it stand a day or so before drawing. This undoubtedly makes the best hay possible and with very little lost time from the coiling, because there is so much gained in the time taken to pitch the hay on to the wagon. Some, where two pitchers are available, do the coiling with the dump rake, pulling the wind-rows into large piles. This works out all right where two men are available to pitch the hay, but where one man must do the work it makes rather strenuous labor for him, pulling the wads apart. Where this is practiced it is not advisable to pull too many rakesful together. The smaller the dumps the easier the hay is handled, and raking in this way saves a good deal of gathering up.



Hereford Heifer, Stanway Gem.
A champion in England.

in the hay crop to go into the barn and be available for stock next winter.

As a general thing with the clover crop it is advisable to cut early. Watch the field carefully, and when the crop seems to be just about full bloom cutting should be started. By the time it is finished and the hay housed it will be plenty far advanced. Alfalfa, of course, should be cut before very much bloom appears, and just when new shoots start out at the base of the plants. Cut too early it is very sappy and difficult to cure. Timothy is more easily cured than any of the clovers. Successful growers cut timothy just after the first bloom has fallen.

Many do not like to start haying too early, because, in the experience of those who have farmed for many years, it has been found that very often early-cut fields are caught with rains,

half. This makes the load come off much more easily, and it does not bind nearly so much.

In connection with loaders there is a new home-made device being used by some in the form of a divided rack, half of which is so constructed that it rolls back and forward, making it very handy to put on the entire load with the loader. The movable section is loaded and pulled up to the front of the rack forming the front half of the load, then the back half is built up. By using this, one man on the load, if he works hard, is sufficient, besides, of course, a boy to drive the team. It saves a man on the wagon, and this means considerable to the average farmer.

We have never seen figures from practical farmers giving an idea of what it costs to produce hay. If any of our readers can give this in-

formation we would be pleased to publish it. It would be necessary to incorporate rent of land, and all the expenses in connection with growing the crop and harvesting. With an average crop of 1½ tons per acre, and with the average in modern appliances to handle the crop, figuring rent of land at \$3.50 and wages for men and teams, it must cost between \$6.00 and \$7.00 per ton to produce hay and see it safely in the barn. We would like to get actual figures from farmers. Can you give them to us?

Alfalfa Experience.

Editor "The Farmer's Advocate":
It was some few years ago that alfalfa came to our farm as an experimental crop. We had heard of it, had seen odd patches of it and were persuaded to try a field with it. It was then almost new to many farmers, and we were I believe, about as early as any in our neighborhood to realize its outstanding qualities. In a short time several of our fields were sown to alfalfa.

Experiments, though costly, were needed. All catches were not thrifty, some killing out in a year or two, or growing unevenly, leaving barren patches of soil or weedy stretches. Perhaps one of our first troubles was the lack of knowledge regarding how thick to sow the seed. We both learned and found that from seventeen to twenty pounds of seed per acre was required for most lands. Most of our seeding to alfalfa was done with a hand sower. I knew one farmer who failed year after year to produce a fair "catch" on hills probably just as good as our own. He was sowing but seven or eight pounds and wondered why he met with ill success. We showed him the mistake. Whether he considered the cost too great to try again, I do not know, but we always considered it paid to sow fairly heavily even when the seed cost us thirteen dollars per bushel.

A clay slope facing the south seems the best land for alfalfa. In our experience sands do not so readily meet its approval. The roots tunnel down into the earth several feet, avoiding drouth. It is here that it can out rival many other clover and grass hays. The slope is almost necessary, unless under-drainage is put into systematic practice. Alfalfa cannot stand a mud-puddle, and natural drainage is an important factor. We have found that alfalfa, on our farm grows best on sunny, clay slopes. It is always preferable that the slope faces the south, as the cold blast from the north in winter sometimes freezes the life out of the plants. Also, this plant cannot be expected to thrive on an infertile blue-clay knoll. A little nourishment is required by everything in starting.

As a fertilizer it stands among the best. Practically every roughage crop or grain crop thrives persistently where this plant has been plowed under. Instead of sapping the land year by year, it really rebuilds. Some of our most fertile fields have been made so by the plowing under of alfalfa. If left too long, however, difficulty will face the plowman. Three years is a good time to leave alfalfa, as after that it becomes very fibrous and tough in the root. It will clean the field of many weeds, principally Canadian thistle, but sow thistle, grass and dodder are its deadly enemies.

It has been said by some that this hay should not be cut more than once or twice at the most, each year, as otherwise it weakens and kills out. We start cutting the second year, and always make it a practice to cut three times, the second and third crops are often the best, being better leaved and quite tender. The value of alfalfa lies in its leaves, and great care should be taken to rake the hay as soon as the dew has dried before it gets too crisp. Once well cured the leaves have a great firmness on the stalk. Much dispute has arisen over when it should be cut. We have found it is best to start cutting when the flowers are one-third out. An early cutting means an early start for the second growth and does not leave it to struggle for mere existence through the summer heat.

Various papers have contained articles stating how often alfalfa should be fed. Some say once a day. Good alfalfa will never injure any normal horse, and I only knew of one case where a horse refused to eat it. Our horses get alfalfa three times daily and never tire of it. We have never had a horse sick from alfalfa feeding and I do not believe it troubles "heavy" horses as some hays do. Horses don't become constipated on alfalfa. It is a laxative feed, being composed largely of protein constituents.

As a rule the horse prefers the stalk of the plant, some even favoring tough stems, though we are raising a colt which enjoys the leaves best. Cows bawl for alfalfa, but prefer the leaf, and thus, any leaves that might otherwise be lost in handling, can be put to good use. Sheep are fond of it, the lambs preferring tender and leafy hay, when procurable. I even knew a man who raised good hogs on meal and finely-cut alfalfa.

York Co., Ont.

B. R. W.

Killing Bindweed.

Editor "The Farmer's Advocate":

You invited correspondence regarding bindweed, and as I have had some experience with it perhaps it might be of use to you. The first way I tried to kill it was by putting strawy manure on the patches, and turning the manure every time the weed began to peep through, and breaking off the roots at the ground. In only one instance was I successful in this way, every other time there were a few straggling roots that lived to start the patch again.

Another way in which I had better success was by putting salt on the patches in the pasture field, and, of course, the cattle would tramp the ground bare and make a puddle of it in rainy weather, although even in this case it would take two or three years. In one field which I have planted in orchard I have been fighting the weed for a number of years, and though it is not all gone still I have hopes that I may do for it yet. I don't think it is a very good plan to plant apple trees among bindweed if you want to kill it, as the trees hinder one from cultivating,



An Inviting Spot.

Nature's beauty spots cannot be excelled by artificial effort.

but it seemed the place to put the trees so I put them there.

First I sowed alfalfa on the field and cut hay off it for a number of years, then I ploughed it up and planted the trees. The bindweed was in the field apparently as bad as ever, although it seemed to be in a different part of the field. Then I sowed oats and cut it for green feed. After the green feed was off I worked the ground as long as a spear of it showed, and next year planted roots and corn. The weed was there yet, but very thin and scattered, and I hoed it as often as I could, and now this year I have it in green feed again. I have tried digging up the patches and hoeing them all summer, but found it was pretty much a waste of time and energy. Another field I had in hay three years ago. There were three patches of bindweed in it, and I ploughed them up and worked them with the disk all summer. The year after was a very dry summer, and I kept the weed hoed very carefully all summer. At the last when there were only a few weeds I would take a shovel and dig them up. Last summer it was in barley and I did not find a trace of the weed.

Huron Co., Ont.

DAVID GEMMELL.

Dinna be a Quitter.

Editor "The Farmer's Advocate":

I was talkin' to an auld neebor a couple o' weeks back an' he was tellin' me about a' the hard luck that one o' his friends had this spring in the way o' losin' his live stock. It seems this mon lost a horse an' a coo inside o' a week an' juist as he was gettin' over the effect o' this an' beginnin' tae lift his head up a wee bit again, ane o' his pure-bred heifers took sick an' died, in spite o' the fact that he didna' get a horse-doctor, nor use any ither means o' hurryin' her off like, such as pourin' a gallon o' oil intae her or giein' her a couple o' pounds o' salts as a mild physic. Anyhow the heifer died a'richt an', as I said, this neebor o' mine was tellin' me about it. "I'll tell ye what Sandy," he says "gin anything like yon happened tae me it wad take the zip clean out o' me. Ye wadna' catch me takin' ony mair big risks. I'd gae awa' back an' sit doon."

I didna' say muckle at the time, but that night when I was sittin' by the fire, thinkin' it a' over, it cam' tae me, what like a mon 'is it that will quit at the first bad crack he gets; or the twentieth, for the matter o' that? The trouble wi' him I believe is that he hasna' a clear understanding o' what he was pit intae this world tae dae. Gin he thinks about it at all he maybe guesses that he should mak' a' the money he can, so that in twenty years, mair or less he can quit wark an' settle doon tae a life o' happy idleness. Noo, there's naething in that, as ony one that has tried it will tell ye. No later than the ither day an auld friend o' mine, wha has retired frae business some time, noo, said tae me, "Sandy," says he, "dae ye ken what was the greatest mistak' o' me life?" "No," says I, "it wad be unco' hard tae pick oot the biggest frae sic a husky bunch." "Well," says he, "I'll tell ye. It was pittin' mase' oot o' a job this way. Die in the harness, Sandy," says he, "or draw yersel' clean through the collar. There's no harder work on the face o' the airth than restin' between meals an' tryin' tae sleep afterwards." An' he looked as though he meant it, puir auld chap.

Noo this proves what I hae been sayin' about the idea some men hae o' the purpose o' life. They never

stapped tae think that this world was intended for a workshop for the manufacture o' men an' not a mint for the coining o' money. Gin they had they wad surely pay mair attention tae that end o' the business. When they meet wi' any loss like what ma neebor was tellin' me about, that happened tae his friend, they look on it as a misfortune woot compensation, an' something that pits them sae muckle further away from the day when they can pit the plow intae the fence-corner an' say good-bye tae it for guid. It's no' the richt idea, gin I ken anything about it an' gin there's ony sense tae this life at a'. There maun be mair tae it than what we see about us, for the best men that ever lived were far from what ye might ca' a "finished product" when the time cam' for them tae dee. We're here tae be drilled an' hammered intae shape for some higher life, where the process will na' doot go on in some ither form, which we dinna ken anything about, of course. But the point is that this makin' o' money that cuts sic a figure in the lives o' sae mony o' us, is only a means tae an end, an' no the end itself, as oor actions wad seem tae indicate. Gin we looked at it in this way the loss o' it wad no' discourage us but we

wad see we were bottom hope o' a' aboo breath o' the hard men o' t' ane' thir' no letter' some qui' a livin' t'

Noo t' frae com' is tae fo' they will the seco' knocked an' not the end.

Gin we see the puttin' n' lang at dead. B' to when along, a us gin it this "Co' tae gra' it's differ writes o' alike. T' the last that qui' The fello' coo wad

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I thin' was a yo' leg an' w' veesitin' a livin', public ad their poel

Noo, v way an' it, an' ke livin' by could dae us but w an' get t about for a "quitt' unco' bac paid job some ither hae, gin juist anit tak' the

Do

It neve matter w ally be s allowing exception work on a tain time neglected a hold, a amount o' hoe the r than to l and make weed the roots the Scotchma rule that plant, wa would be one place roots, wh hoeing ve bared too injure the ing early a foothole hoeing to

wad see in it a chance tae prove what like stuff we were made of, an' we'd tak' hauld o' the bottom rounds o' the ladder again wi' as guid hope o' reachin' the tap as if we had forgotten a' about the bad fall that maybe knocked the breath oot o' us for a meenute or two. I believe the hardest wark the Lord has in tryin' tae mak' men o' us is tae keep us on the job. We try ane' thing an' then anither an' when we find that's no letter we try something else. An' in the end some quit tryin' a' tagither an' tak' tae spongin' a livin' oot o' their friends.

Noo there's juist one way o' preventin' yersel' frae comin' tae sic an' endin' as this, an' that is tae forget yer failures, (except in sae far as they will help ye tae dodge the same mistak' on the second round) tae get up ilka time ye're knocked doon, an' tae remember it's what ye are an' not what ye have that is gaein' tae coont in the end.

Gin we wad think a meenute it isna' hard tae see the foolishness o' gettin' things twisted an' puttin' money ahead o' character. We're no' here lang at best an' money's na' guid when we're dead. But whatever like place it is we're gaein' to when we quit here we can tak' oor character alang, an' there's na' doot it will be o' use tae us gin it is a guid one. It's oor diploma frae this "College O' Hard Knocks" that we a' hae tae graduate from some time or anither. But it's different frae some "Diplomas," for ilka mon writes oot his ain an' there's no two o' them alike. There's guid, bad an' worse. An' among the last will be those that belong tae the chaps that quit when the going got bad, I'm thinkin'. The fellow that wad lose a' his "zip" when a coo wad die, for instance.

What kind o' a soldier wad a mon o' this class mak', div ye think? I'm afraid he wouldna' stand vera lang before the Germans. His "zip" would tak' pretty sudden leave o' him when the bullets began tae fly and men began tae fall on a' sides o' him. There's juist one cure that I ken about that will wark in a case like this, an' it willna' bring the patient aroond in a day or two either. An' the remedy is this. Mak' up yer mind that whatever comes tae ye in the way o' misfortune ye'll turn tae guid accoont in some way or ither. Gin it's a money loss mak' it an experience gain, an' ye're bound tae be ahead by the transaction. Ye canna' bring yersel' tae this condeation o' dyed-in-the-wool optimism in a day, as I said, but gin ye want tae live in comparative peace o' mind an' mak' a success o' yer life-wark whatever it is, ye'll tak' hauld an' drill yersel', a wee bit at a time, intae refusing tae be discouraged, no matter how black it looks on ahead, an' while there's breath left in yer body.

I think the happiest lookin' chap I ever saw was a young fellow wha' had lost an arm an' a leg an' wha' had taken tae tourin' the country, veesitin' the fall fairs an' so on, an' whistlin' for a livin', an' he made a guid livin' too, for the public admired his grit an' went richt doon intae their pockets tae show the way they felt about it.

Noo, when a mon has been trimmed off in that way an' can bring himsel' tae whistle over it, an' keep it up tae the extent o' makin' his livin' by whistlin' alane, (when that was a' he could dae), I'm thinkin' that there isna' many o' us but what might mak' an' attempt tae tune up an' get tae wark on the auld job again, or hunt about for a new one till we find it. Dinna' be a "quitter", as they ca' it, whatever. It's an unco' bad soundin' name, an' about the warst-paid job a mon can go at. Was it Burns or some ither Scotch poet that said: "For all may hae, gin they dare choose, a glorious life." It's juist anither way o' sayin' "Dinna' let onything tak' the 'zip' oot o' ye."

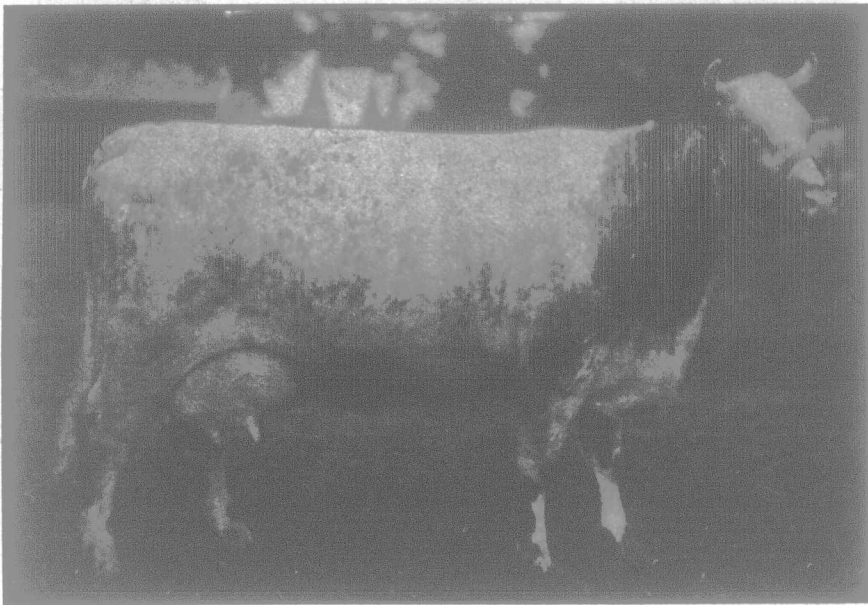
SANDY FRASER.

Do Not Let the Hoeing Lag.

It never pays to be behind with the work. No matter what the job to be done, time can generally be saved by running the work rather than allowing the work to run you. Hoeing is no exception to the rule. If there is one summer work on the farm which should be done at a certain time and not later, it is the hoeing. If neglected for a few days or a week the weeds get a hold, and, when the work is done, twice the amount of labor is required. It is far better to hoe the mangels and turnips a little too small than to leave them until the weeds get a start and make the work more difficult. The larger the weed the harder it is to kill. The larger the roots the harder they are to thin. An old Scotchman we knew some years ago made it a rule that in hoeing turnips or mangels every plant was to be knocked down so that there would be no danger of two plants being left in one place. This should apply when hoeing the roots, whether large or small, but be careful when hoeing very small roots that the plant be not bared too much at the root and set back as to injure the growth. It is well to get at the hoeing early and get it done before the weeds gain a foothold and the other work pushes on, causing hoeing to be neglected.

False Flax.

A weed, samples of which are often sent to this office for identification, and one which somewhat resembles common flax, is correctly known as False Flax. In Europe this plant is cultivated, and the oil extracted and used for feeding cattle. Europe, then, is the origin of the weed. The plant is an annual and a winter annual with long, lower leaves showing a stem. The seed is contained in a pear-shaped pod, and an average plant is said to produce about 40,000 seeds. The plant flowers from June to August, and seeds are produced through July and August. Many farmers have introduced the seed on their farms as an impurity in clover seed, or in some cases in the flax seed. Where it is not too widely distributed it should be hand-pulled, and it is always well where False Flax makes its appearance not to sow any winter crops, as rye or winter wheat. After the grain crop is harvested the land should be ploughed lightly, and this operation followed by frequent strokes of the cultivator throughout the fall months. This cultivation should be frequent and thorough. The next year a hoed crop or summer-fallow would be good practice, and where a rotation of crops is followed it would be well to drop out all fall or winter crops until after the weed has been eradicated. It gives considerable trouble in Western Canada, particularly in grain sown on stubble land, but is becoming more widely scattered in Ontario, and farmers should be on the lookout for this weed, and where noticed in isolated patches it should be carefully pulled and burned, or, if it has chanced to get into fields in quantity, spring crops only should be sown, and special emphasis put on hoed crops until it is eradicated. Where it appears in winter wheat or rye it is said that harrowing in the spring will kill a large number of the young plants. It would be safer, however, to avoid sowing the winter crops, and not depend upon the harrowing to clean the fields.



Fyde Valentine.
A winning English Dairy Shorthorn.

THE DAIRY.

The City Owned Milk Plant.

Editor "The Farmer's Advocate":

In a previous article the writer referred to the increasing cost of milk distribution in towns and cities. We also said the matter would be referred to again.

So far as we can see, the evolution of the milk supply of any city is very similar to that of the water supply. The development of the two are along the same general lines. In the case of the water supply, we have first, individual wells from which each person gets his own supply of water, and possibly also furnishes a few of the neighbors with water. As the town grows, the wells become polluted or inadequate, and some private person or company undertakes to supply the town with pure water through pipes from a general source, such as a lake, river or artesian well. This method is more or less of a monopoly, and it is not long before the citizens come to the conclusion that they had better control the water, supply themselves, thereby insuring a purer water, and whatever profit there may be in the business may be utilized to reduce taxes, improve the water supply, or reduce the rate charged for water. The public franchises of a city, such as water, gas, electric light, street-car system, etc., are gradually being taken over by the citizens and operated for public benefit, and not for the benefit of private persons or corporations.

Let us see how the milk business stands—past

and present. We have first, citizens owning a cow or two, or possibly one or more goats for supplying the house with milk; and if there be a surplus this is sold to the neighbors. The cows are pastured in summer on the roadside, in vacant lots, or may be driven to some nearby farm where pasture is rented. The cows are milked on the roadside near the house, or possibly in a more or less unsanitary stable located on or near the lot where is situated the family dwelling house. By and by the town grows, vacant lots are less numerous, the near-by farm where once was pasture has been sold to the land speculator, who has it surveyed into town lots, bordered by cement walks, boulevards, drives, etc. The home lot becomes hemmed in by dwellings on all sides. The neighbors object to the odor from the cow-stable, the Health Inspector is called in and the place ordered to be closed up. The cow or cows are sold and the milk supply is cut off for the owner's family and for the neighbors.

However, milk they must have, as there are young and growing children who need very much the food furnished by the foster-mother of the human race, the dairy cow. Some person who keeps cows out of town is induced to start a milk-route to supply the demand. If he is the right sort of a milk-man, and the town grows, he will soon have two, three or more wagons peddling milk about town; or someone else seeing a chance for making money buys an old horse and wagon and secures a supply of milk from some farmer. The party may not have the slightest idea of what is required in the milk business. All he knows is that if he can buy milk from the farmer at two to three cents a quart and sell it for five to seven cents a quart, and he can sell 100 or more quarts daily, there is a fair profit and wages good enough in it for him. The whole outfit of this milk-peddler may not be worth over fifty dollars, and he is wholly irresponsible, yet he is allowed to deal in such a life-giving fluid as milk.

Sometimes the town or city has a system of licensing milk vendors, but it is largely a matter of form, as almost anyone can secure a license if he has a "pull" with one or more Aldermen. And so it goes on until some epidemic of diphtheria, scarlet or typhoid fever causes an investigation to be made; the trouble is traced to the milk supply, the license is suspended and matters are improved for a time, but soon things get into the same old rut and it is allowed to run on, until there is another outbreak, another investigation, and so on, ad infinitum.

After the town becomes a city of 100,000 or over inhabitants, the citizens begin to investigate the milk question. Some enterprising spirits who see an opportunity to do good, and incidentally make some

money, propose a city milk plant, with up-to-date methods of pasteurizing, etc. A large sum of money is spent on the plant and the city milk business is well advertised. The quality of the milk is good, the business, if properly conducted is backed by the Medical Health Department and the small dealers are gradually crowded out. It is at this point that there is danger of a monopoly, with prices unduly forced down to the producer and prices advanced to the consumer. It is reported that a company in a certain large American city offered several million dollars for the franchise, or exclusive right to sell milk in that city for a term of years. This request was not granted, and wisely so.

MUNICIPAL CONTROL.

It would seem as if the milk business must soon advance to the third stage, or that of municipal control. This will not come about all at once. Large sums of money are invested in city milk plants and these vested interests will have to be considered. Then also, municipal governments have none too good a reputation at present. The business management of most of our towns and cities leaves much to be desired, but eventually the people will find a solution of all these difficulties, by commission, salaried manager or otherwise. Until this first great problem is solved, we may not look for much advance in the idea of municipal control of the milk trade, but once this trouble is overcome the remainder will be comparatively easy.

At least one American city (Jamestown, New York) is considering, "the establishment of a municipal plant for the supply and sanitary distribution of milk" as outlined in a recent article

by the Mayor of that city. The Mayor argues: "The only effective way by which milk can be inspected is by means of a central station controlled by the municipality, to which all milk must be brought by producers and there tested. By this method the community will not only be safeguarded against improper milk, but the city, being the purchaser, as well as the distributor of the milk, will be in a position to pay the producer on the basis of the quality of the milk produced, and thereby offer inducements to the farmer to produce a better quality of milk in expectation of greater remuneration for the same. Competition may have its proper field in production, but in the field of distribution of milk, competition is useless, costly and dangerous. Under present conditions citizens are unable to know what they are buying, and dairymen are unable to know what they are selling. Not only is a municipal milk plant a necessity from the standpoint of safeguarding the public health, but as a matter of economy to the people of the community, there would be a saving of fully 75 per cent. in the cost of distribution. The average citizen pays out more each year for milk than his entire tax for all municipal purposes would amount to. The milk should be handled with the same degree of efficiency with which the postal department handles the United States mail. The city would have a free field in this business, for the reason that no competitor would be able to comply with such requirements in competition with the city, and the success of the proposed municipal undertaking would be assured, because the people would be serving themselves."

Thus writes one enthusiastic Mayor of the newest proposal in milk distribution for city dwellers. There is food for thought in his argument.

O. A. C.

H. H. DEAN.

Good Butter Can Only Come From Good Cream.

With the warm weather milk and cream troubles increase and every delivery of sour or inferior milk or cream injures the dairy business and the business of the individual who offends. Good dairy products stimulate the demand. More of them are used when the public is assured of getting a first-class article in every case. One bad dose turns the consumer against these products. He does not feel that he can afford to take a chance on any more dairy products so does without them and substitutes something else in his daily diet.

Circular No. 51, from the Indiana Experiment Station, Purdue, comes out with the statement that the farmer controls the quality and price of butter, one of the finished products of the dairy.

"The dairy farmer, the producer of milk and cream, controls the quality and price of butter. If he furnishes cream of good quality he makes possible the manufacture of good butter, which will command the highest price on the market. If he supplies cream of inferior quality, a low grade butter is bound to be made from it, which means small returns for the product.

"The dairy farmer is the controlling power which determines the destiny of the dairy industry. The care he gives the cream on the farm, determines the financial returns from the butter; and in turn the returns from the butter determine the prosperity of the dairy farmer, because the price the creamery pays for butterfat is necessarily largely regulated by the price the butter brings on the market.

"Lack of proper care of milk and cream on the farm and the resulting poor quality of cream, therefore, will augment the depression of the butter market, and stimulate the sale of foreign butter and butter substitutes, causing low prices to the creamery and small returns to the farmer. These unsatisfactory conditions can be overcome by proper attention to the quality of the cream on the farm."

To turn out a first-class product a few precautions are necessary on the farm. The separator must be clean and sanitary, the cream must be cooled quickly; cream must be delivered frequently and be protected in transit.

"The separator is the collector of many of the impurities contained in milk. If cream of good quality is to be secured it is obvious that the separator must be cleaned thoroughly after each separation. If not washed and freed from all remnants of milk of the previous separation, the separator becomes a seat of contamination and a source of unclean and filthy cream, the disastrous consequences of which no subsequent treatment and care of the cream can overcome.

"This does not mean that no attention should be paid to cleanliness and care of milk before separation. Milk produced under unsanitary conditions will not produce good cream, even if passed through a clean separator. In the production of good milk, clean stables, clean cows, clean milking and clean utensils are essential, but all these precautions come to naught, unless the milk is run through a clean separator; and experience has shown that it is this negligence

in the care of the separator that has done more harm to the quality of the cream than any or all of the factors entering into the care of the milk before separation, combined.

"Immediately after separation, flush the separator with water until the discharge from the skim milk spout is clear. This removes most of the remnants of milk and cream, and loosens the separator slime in the bowl, making subsequent washing easy. Now take the bowl apart and wash with hot water containing some good washing powder, all parts of the bowl, discharge spouts and buckets. Then rinse them with scalding hot water and allow all parts to drain in a clean place. All other milk utensils should receive the same treatment. Do this after each separation. Aside from insuring cream of good quality a clean separator will skim more closely and last longer than a separator that is not thoroughly washed after each separation. The slime which accumulates in the bowl reduces the space in which the milk is exposed to the separating influence of the centrifugal force. The separating efficiency is therefore diminished and more fat is lost in the skim milk. If the bowl is not washed after each separation the impurities and acid formed in it, due to decomposition of



Where the Speckled Beauties Are. A nice holiday spot for the busy farmer

the remnants of milk, tend to corrode the bowl and internal contrivances and to shorten the life of the separator.

"The spoiling of cream as well as the decomposition and putrefaction of other food stuffs is caused by germ life, bacteria, yeast and molds. Like other living organisms germs require warmth to thrive. In the absence of warmth they are inactive and are unable to continue their work of destruction.

"When the cream comes from the separator it is warm and in ideal condition for bacterial decomposition and spoiling. If it is cooled promptly the activity of the bacteria is checked and the cream will keep sweet for a reasonable length of time. The lower the temperature to which it is cooled the longer it will keep in normal condition. Cooling to the temperature of the water available on the average farm alone greatly retards bacterial action and prevents spoiling. Cream should be cooled at once after it leaves the separator.

"Prompt cooling is not possible by merely letting the cans stand in the air. Air is a very poor conductor of heat. The cans must be set in water. Water cools cream about thirty times as fast as air. Set the cream cans in a trough,

tight box, tank or half barrel containing water. If running-water is available, let the water run through the tank continuously; if not, fill the tank up with fresh water at least once every twelve hours. If the cooling tank is connected with the stock watering trough, the water needed for the stock serves to cool the cream by running through the cooling tank first. Stir the cream frequently to hasten the cooling and to keep it in smooth condition. Do not pour warm cream into cold cream; this practice spoils the whole batch. Cool the warm cream in a separate can before mixing. Aside from checking fermentation and therefore avoiding rapid spoiling of the cream, the use of the cooling tank serves to take the animal heat out of the cream, preventing the cream and butter from developing an unpalatable, smothered taste, which greatly depreciates the market value of butter.

"Cream is a highly perishable product. Like other similar products it is best when fresh and should therefore be marketed as early as possible. Age will deteriorate cream under any condition. While proper care retards such deterioration, it cannot entirely prevent it, hence delivery should be made often, preferably three times per week in summer and twice per week in winter.

"Low-testing cream sours and spoils more rapidly than high-testing cream, so that by the time it reaches the creamery it is often in condition unfit to be made into good butter. In the spoiled and curdy condition, it also makes difficult accurate sampling and testing. It is undesirable further, because it diminishes the amount of skim milk available for the feeding of calves and pigs; it increases the cost of transportation for every pound of butterfat shipped; it makes impracticable the use of a reasonable amount of starter in the creamery, and starter is essential for the production of the best quality of butter; it does not churn out exhaustively and yields an excessive amount of buttermilk, augmenting the loss of fat and thereby reducing the churn yield. Too rich cream is undesirable because it tends to clog the separator; it increases the loss in handling due to sticking to the receptacles; it makes difficult accurate sampling and thereby tends to yield incorrect tests. It is desirable to produce somewhat richer cream in summer than in winter to prevent excessive souring in summer and difficult handling in winter.

"The cream should be kept in the cooling tank until it leaves the farm. While being hauled on the wagon and waiting for the train at the station, it should be properly protected against heat in summer and cold in winter. This can be done by using a covered wagon for hauling, or by slipping a jacket over the cans, or by covering the cans with a wet blanket in summer and a dry blanket in winter. If the cans arrive at the station long before train time, as is often the case, a cooling tank filled with water and located in the shade, should be provided so that the cream is reasonably protected against the hot summer weather.

"As long as our creameries receive inferior cream, they are unable to secure top prices for their butter and can pay only second grade prices for butter fat. Good cream will enable them to build up a reputation for good butter, which means increased demand, higher prices and larger returns to the cream producer."

No valuable dairy bull should be allowed to run in the field with the herd; in fact no bull of any kind should. If it is not injurious to the bull it is to the cows which will not give their usual flow if chased all day by a bull.

Editor

I have of Lord which made, a 179 head kinds, c The bulls plum of Barrington Stone, o bred at beautiful 15th ga has since dam gav calf, and grand da 9,178 po of a cov per annu ness to bidding guineas Liverpo Mond, th for his cow calf Acomb, fetched for a da mite of Take c tioneer, the atten ring.

Another Blossom, sire, and bid averaged which is white he paid 300 Butterfly of milk and on S giving 20 Foggath Sanday so they hundreds cheers w 179 lots average Taylor's one of £ what the come und Surrey,

Good f

Where bators m thing lach something Incubator to be as a flock of few days incubator number of young chi had been had not which had so weak able perc were set chickens range wit hatch wa young chi they were the natura hens, and well to p into the breeding p have a n on cultiva system of and there than in t large enou growing c frequent c in the chickens. It may it is a ve breeding o most valu

Record Prices for Milking Shorthorns.

Editor "The Farmer's Advocate":

I have just come back from the dispersal sale of Lord Rothschild's herd of dairy Shorthorns at which many world's records for the type were made, and the huge sum of £18,698 secured for 179 head, or an average of £106 12s. 4d. for all kinds, cows, heifers and wee calves counted in. The cows and heifers averaged £106 8s. 11d. and the bulls and male calves £72 17s. 2d. The chief plumb of the sale was the three-year-old heifer Barrington Duchess 53rd, a roan, by Foundation Stone, out of Barrington Duchess 34th, of course, bred at Tring. She is a magnificent heifer of beautiful form, with a perfect udder, and on May 15th gave 40½ pounds of milk, a feat which she has since improved upon, giving 45 pounds. Her dam gave 9,150 pounds of milk with her first calf, and 10,157 pounds of milk in 1912. Her grand dam gave 10,047 pounds of milk in 1908 and 9,178 pounds in 1909. Her grand sire was out of a cow that averaged 10,912 pounds of milk per annum. So one better understands the keenness to buy this heifer. She was started on the bidding at 350 guineas, and rose in leaps of 50 guineas to 950 guineas, where Robt. L. Mond, a Liverpool born member of the firm of Brunner-Mond, the Cheshire chemical experts, bought her for his farm at Sevenoaks in Kent. Her roan cow calf, Barrington Duchess 55th, by Duke of Acomb, reached 160 guineas, so that her brace fetched 1,110 guineas. It was a world's record for a dairy Shorthorn, and of course one for the mite of a calf which was just a month old. "Take care you don't drop it," cried the auctioneer, Frank Matthews, of Thornton & Co., as the attendant gingerly carried the calf out of the ring.

Another cheer was raised when the heifer Apple Blossom, also by Foundation Stone, the stud sire, and one of the Duchess breed, fell to the bid of Mr. Askew for 650 guineas. Her dam averaged 8,790 pounds of milk for four years, which is some pail filling. Her calf, a red and white heifer, realized 85 guineas. Mr. Askew paid 300 guineas for the five-year-old cow Roan Butterfly whose dam, Anita, gave 16,884 pounds of milk from July 15, 1912 to July 14, 1913, and on September 13 of that same year was still giving 20 pounds per day. Patricia, one of the Foggathorpe tribe realized 300 guineas, Samuel Sanday buying her for his Cheshire herd. And so they ran on into their two's and three's of hundreds, and when the sale was over three cheers were called for the auctioneer, who sold 179 lots in 350 minutes. The previous record average was £83, secured when the late George Taylor's dairy Shorthorns were sold, but this one of £106 smashed it into bits. One wonders what the Shires at Tring will make when they come under the auctioneer's hammer.

Surrey, England. G. T. BURROWS.

POULTRY.

Good for the Hens and Good for the Chicks.

Where poultry is raised on a large scale incubators must be resorted to, but there is something lacking in almost every incubator, and that something has not yet been definitely discovered. Incubator chickens, for some reason, do not seem to be as hardy as those hatched under hens. In a flock of 3,000 young chicks, which we saw a few days ago, and most of which were hatched in incubators and brooded artificially, we noticed a number of hens running with good-sized broods of young chickens. It was learned that these hens had been given eggs from breeding pens which had not been hatching well in the machines, or which had produced chickens from the machines so weak that they could not be raised in profitable percentage. A large number of these eggs were set under hens, and a day or two after the chickens were hatched the hens were given free range with the youngsters. A high percentage hatch was obtained, and the mortality of the young chicks was very small. To all appearances they were a hardy, vigorous lot when hatched by the natural method and given free range with the hens, and, while discussing this matter, it is well to point out that young chickens to grow into the hardiest and best stock, either for breeding purposes or for fattening for sale should have as much free range as possible, preferably on cultivated land. For this reason the colony system of raising has come into general favor, and there is no better place to put the houses than in the corn field as soon as the corn is large enough that it will not be injured by the growing chicks. The corn gives shade, and the frequent cultivation keeps the land stirred and in the best possible state for the working chickens.

It may also be stated in this connection that it is a very good practice where large numbers of breeding chickens are kept to allow some of the most valuable hens to bring off a brood of

chickens and run with them during the summer. As Prof. Graham, of the Ontario Agricultural College states, there is no better way of working off surplus fat and placing the hen in a strong, vigorous condition for another year's breeding operations than allowing her to run with a brood of chickens during the summer months. The exercise she gets in scratching for the brood is good for her, as her laying propensities and the hardiness of her chickens will show the next season.

Give the Clucker a Nest She Cannot Warm.

One of the most troublesome factors in maintaining egg production, especially with the heavier breeds of poultry during the summer months is broodiness. Many suggestions have been put forward through "The Farmer's Advocate" for breaking up broody hens, among them being the placing of the cluckers in a pen where several active male birds are kept. The other day we noticed at the Poultry Department of the Ontario Agricultural College an idea which, while not new, will likely prove new to many of our readers. Broody hens were enclosed in some triple-deck feeding crates with wire bottoms. About six inches under the wire was placed a board bottom to catch the droppings, but the hens were on the wire floor. As pointed out by Prof. Graham, a hen will not sit on anything she cannot get warm. Those who have had experience in breaking up broody hens have found many so persistent that they would sit on bare boards, on bricks and even on flat roosts. These hens would soon give up the job if they were placed on a wire bottom under which air circulates freely. Several hens were in these enclosures on the day of our visit and were all standing up. The secret of the matter is that the cool air circulating underneath gives the hen no chance to get the nest warm and she soon becomes disgusted, stands up and forgets all about her incubation tendencies. This is a small point, but one well worth knowing and worthy of use.

While watching the hens in these enclosures one of our party asked how long it took to break up persistent cluckers. The reply was "about four days," which is a comparatively short time at this season when the tendency to become broody is very prevalent amongst the heavier breeds. It was also pointed out that in every case where hens are confined for this purpose they should be well fed. The impression seems to be abroad even at this time that broody hens should be starved and treated as badly as possible. This is a mistake, for the hen must be well fed and well cared for if she is to commence laying again in a short time. Prof. Graham stated that these hens were fed all they would eat and made as comfortable as possible in their wire bottom boxes. It is well then to give all the broody hens so enclosed plenty of feed, mixed grains, green feed and grit, and also fresh water that they may be induced to commence laying as soon as possible after being let out of confinement.

A Run for the Roosters.

One of the main factors in the production of strong, healthy chicks is breeding stock which shows great vitality. It is the belief amongst poultrymen that a weak constitution is inherited in poultry just as surely as it is in live stock, and if profitable chickens are to be produced much depends upon the male birds in the breeding pens which must be in a vigorous condition and capable of transmitting their vigor to the chicks. For this year, the breeding season is about over and it is advisable to remove the male birds from all of the laying pens. This insures infertile eggs and a better quality of eggs to the consumer.

The problem is what to do with the roosters. Where pure-bred flocks are kept and valuable birds used for breeding purposes it is not wise to kill, each year, the male birds. They should be kept over for future seasons. The other day while on a visit to the Ontario Agricultural College we happened to notice a large number of male birds of all breeds running together in one pen with an outside run. It was explained to us that as the pen is no longer needed for breeding purposes the male bird is taken and placed in this run with the others and in a short time all the valuable males from the breeding pens are run together in one yard. We wondered at this, believing that they would fight, and so they do, but, according to Prof. Graham, it is one grand opportunity to demonstrate the survival of the fittest. Occasionally a good bird is set upon and killed, but as a general thing the hardy, strong birds come through all right and they certainly get no chance to loaf while closed in together. Some of

the men around the Department call this 'pen "The Old Boys' Reunion." Of course, on the average farm only a few birds are kept, but the same system could well be put into practice with them. It would not take much chicken wire to construct an outside pen, and any box of sufficient size could be used for the summer months for night shelter. This would be a far more satisfactory way to keep the breeding males than to allow them to run all summer with the general flock of hens.

One of the best ways of keeping the males through the winter is in small coops. This is not followed on many farms but has been found by poultrymen to be successful. A little care of the roosters would mean more strong chickens and fewer complaints about mortality after hatching.

HORTICULTURE.

Garden Pests and how to Combat Them.

Root maggots and plant lice or aphids were discussed in the issue of June 17 and should be summarily dealt with where discovered. They are only two species however, of the great body of injurious insects which gardeners must combat. A few others are mentioned in the following paragraphs.

Cabbage butterfly.—Truck gardeners and people with domestic gardens know only too well the cabbage butterfly and its pestiferous offspring. The parent is usually white but often it is seen quite yellow in hue. The butterfly is present from early spring until late in the autumn. The cabbage worm is velvety green and measures, when full-grown, about 1½ inches in length. The worm begins work early in the season and after riddling the outer parts of the plant it attacks the inner leaves of the forming head. Even when it has secreted itself in the head its presence will be detected by the excrements to be seen on the plant.

Arsenicals are most efficient in controlling the caterpillars or worms. Before the heads begin to form dust with Paris green mixed with considerable air-slaked lime or land plaster. After the plants are too far advanced and there is danger of poisoning consumers of the cabbage, spray with fresh pyrethrum, 1 ounce to 1 gallon of water. This substance will destroy insects but it is not poisonous to humans in small quantities. Cauliflowers are attacked by the same pest and the treatment in case of the cabbage is applicable to the cauliflower.

Cucumber beetles.—Such plants as cucumbers, melons, squash and kindred varieties of garden crops are often attacked early in the season by a small, striped beetle which will measure about two-fifths of an inch in length. Its color is yellow above with a black head. The outside or hard wings are striped longitudinally. It is one of the hardest pests to control that affects garden crops. Poisons are not entirely satisfactory and efforts should be made to destroy them as much as possible in the fall of the year so the attacking force of the following spring may be very much diminished. After the crop is harvested the old vines should be burned but it would be well to leave a few plants here and there upon which any remaining beetles might congregate and be easily destroyed. In some districts "driving" is practiced. This consists in throwing air-slaked lime into the wind from the windward side of the patch. They will fly away before it and alight on plants not covered by the lime. These plants should be treated with Paris green, about ¼ lb. to 40 gallons of water, which usually destroys considerable numbers of the insects.

Cut-worms.—The season when the cut-worm does the most extensive damage is almost past for this summer but many inquiries come to "The Advocate," the contents of which lead us to believe that no small amount of injury is being done by this provoking enemy of the garden. The adult is a moth which flies at night and the larva or worm is also nocturnal in its habits. The worm will vary in size from 1 inch to 1½ inches in length when mature but if it has been prosperous during its lifetime it will probably come nearer to the greater length. There are several species of cutworms and when some varieties become abundant enough they acquire the climbing habit and work above ground. Ordinarily their custom is to cut off young plants just below the surface of the soil and when a plant begins to look injured and suddenly wilts, the gardener will usually find, upon digging into the earth, a small worm of a dull dirty-brown color. This is the cut-worm, one of the worst pests of the garden.

The most effective treatment for the cut-worm is a mixture of poisoned bran. This is composed of 1 lb. of Paris green to 100 lbs. of bran. It is best prepared by first dampening some bran with sweetened water and then sprinkling the Paris green on to it stirring constantly. When completed the mixture should be only moist

enough to cause the poison to adhere to the bran and so it will slip through the fingers easily. Smaller quantities of these proportions will suffice for garden requirements. The mixture should be placed around the plants in the evening or afternoon so when the worms come near the surface at night they will be attracted by the fresh mixture. Cut-worms are very fond of poisoned bran and when young plants are being set in the open garden it is well to take the precaution of putting a little of the mixture around them. Fowl of course should not be allowed to eat the mixture. It is poisonous to them as well as to cut-worms.

Three Potato Scourges.

Few crops are subjected to such implacable enemies as is the potato. The Colorado potato Beetle and late blight of potato are relentless in their onslaught, and although the beetle is generally combated by growers the blight is too often allowed to go unscathed. Perhaps the reason is that the disease of the potato called "late blight" works in a more mysterious way than does the beetle. It is not so easily observed, neither are the effects of controlling efforts so marked. In the case of the beetle the young may be seen at work devouring the foliage, and after arsenicals are applied it affords the grower no small amount of delight to see the slugs darkened and dead beneath the plants. Preventive measures must be taken to control the blight, for when once it becomes established it is sure to do considerable damage before being checked.

In addition to the beetle and the late blight of potato there is also an early blight. It is a fungous disease and operates in much the same way as the late blight. However, it does not cause the potatoes to rot, but it will cause the plants to weaken and die before the small tubers have attained to any size. Growers may think that the tops have died a natural death, but in many cases it is the early blight which has played havoc with the crop. In one instance, which came under our observation last year, a field of early potatoes, grown as a purely commercial scheme to take advantage of the early markets, was affected with early blight. One-half of the tubers did not attain to marketable size, and were almost valueless. The marks which identify early blight are the peculiar concentric rings upon the leaf. The foliage assumes a different color. Grayish-brown leaf spots which are brittle, irregularly circular and marked in a concentric manner (one ring within another) appear about the time the tubers begin to form. These spots later come together and involve large areas of leaf tissue and results in brown, withered leaves, the stems remaining green. The progress of the disease covers three or four weeks before all leaves are dead, but the disease so diminishes the vigor of the plant that the yield is largely reduced.

The late blight, an entirely different disease, generally shows first near the tip or margin of the leaf. The disease area soon dies and turns to a dark, dirty color, or it may curl up if the progress of the fungus is checked by unfavorable climatic conditions. Under conditions of humid atmosphere fine, white down may be seen upon the more recently invaded parts. This attack upon the leaf is accompanied by a very offensive odor which may be recognized a considerable distance from the field. Unlike the early blight the late blight affects the tubers themselves. Upon dry land, dry rot results, while upon very moist soils the tuber will decay quickly and form into a whitish slimy mass. In fact the disease is carried over in the tubers, and some plants may be affected with the disease when they first come above ground. They act as a harbor for the disease and spread the epidemic.

The one efficient treatment for blights of potato is the Bordeaux mixture. This has been so often described that it needs no explanation here. However, the potato "bug" is so often common when spraying is being done that it becomes necessary to use about one pound of Paris green to the 40 gallons of Bordeaux mixture. In such a case it is wise to use two additional pounds of lime to prevent burning of the foliage. Wherever experiments have been tried with spraying potatoes with Bordeaux mixture the results have usually been favorable to the method. Where check plots have been left it has been demonstrated that the life of the plant is considerably prolonged by this preventive treatment. The tubers are usually larger, and the crop more free from disease. Spraying should commence upon the first appearance of early blight, and be repeated every week or ten days as the weather warrants. After the slugs of the potato beetle become common it is well to prepare for the late blight and spray thoroughly. Preventive measures are necessary to control the late blight of potatoes, for when it is once established in the tissue of the leaf it is hard to combat.

Asparagus Plantations From Seedlings.

Not many years ago the prevailing custom in starting an asparagus plantation was to purchase crowns from the seedsmen and set them about 8 or 10 inches deep in the soil. Visits to many gardening farms this season have shown this system to be going out of date for the majority are growing their own seedlings which will be transplanted to the permanent asparagus field in the spring of 1916.

In order to get plants for this purpose asparagus seed is sown in drills three feet apart as soon as the ground is fit to work in the spring. Usually it is done the last of April or during the first two weeks of May. When the seedlings are 2 or 3 inches high the weaker ones are thinned out so as to leave the young plants about 8 inches apart in the rows. Cultivation should be frequent to keep down weeds. It is possible also to produce the seedlings in the greenhouse during the winter months but the hardening process should be carefully executed in the spring before the tender plants are committed to the mercy of the weather.

The field which is to become the permanent plantation should be well prepared by plowing and disking and cultivation on the previous year should be such as to leave the soil in proper tilth. After the land is levelled, furrows to the



A Field of Young Asparagus.

Showing the land ridged up so the plants are set about six inches below the surface.

depth of 6 or 8 inches are run out. The bottom should be V-shaped and this may be accomplished by plowing a furrow each way.

When severe frosts are over in the spring setting should begin. During transplanting, weaklings again should be discarded. It will be a fairly easy matter to produce enough vigorous plants so it is manifestly unwise to make use of seedlings that are weak at the beginning and give promise of continuing so. The plants should be set from two to three feet apart in the rows and the furrows themselves should be at least 4 feet apart. Many plant 5 feet apart and claim that distance is necessary in order to accomplish thorough cultivation. In a garden for family use even less than 4 feet apart for the rows is quite practicable but on a commercial scale 4 or 5 feet is necessary. With a dibber the seedlings are set in the bottom of the furrow and some loose soil drawn around them or they may be set in the bottom of the furrow and some moist soil drawn closely over the roots. From this on frequent scuffing and hoeing should be carried on. A loose mulch of soil and absence of weeds are the requirements for the summer. The furrows will gradually fill and the field will become level so disking and other operations may be carried out as on an ordinary unplanted field.

Some growers, especially in British Columbia, do not even favor transplanting the seedlings. Their contention is that the transplanting tends to produce woodiness in the shoots thus depreciating the value of the crop. To evade this undesirable condition the seed is sown in the drill where the asparagus will remain permanently and radish seed is sown at the same time to mark the rows. Cultivation may commence before the asparagus appears above ground for the radish will germinate quickly and mark the rows so plainly that only careless laborers will do injury.

It is claimed that the one-year-old seedling will produce cuttings as quickly as will the three-year-old crown. It requires about four years before any extensive cutting may be done but in spite of this delay gardeners find it profitable to have a plantation of Asparagus.

The Busy Season For Associations.

Many men fail in the fruit business, not because they are unable to raise large yields of first-class produce, but because of a lack of special knowledge and understanding of markets and marketing. Fruit growing is a science; fruit selling is a fine art. The managers of co-operative associations must have abilities quite different from those required by the grower. It is not altogether necessary that the manager knows how to grow fruit at all, but one thing he must know and that is how to sell it. In the words of W. R. Martin, Manager of a co-operative association in the State of Kansas, the man at the helm "must have his hand on the wire, his ear at the 'phone, his eye upon the market and both feet in the business."

As this association is described in a report of the State Board of Agriculture for the State of Kansas, the manager sees that shipments of fruit are properly marked, routed, loaded, braced, iced and ventilated. No more worry for the grower about glutted market, grasping buyers or any other of the numerous evils that beset the pathway of the individuals. As in the factory and all other modern business of the day, waste is eliminated.

The events leading up to the organization of this association, now known by the name of Wathena, resemble very much the history of co-operative associations in Canada. In the district referred to the growers of fruit had become dissatisfied, prices had declined until only 50 or 60 cents per crate could be obtained for blackberries. It was then that the producers got together, and from their first meeting grew an association which now owns property valued at about \$20,000, consisting of warehouses, shipping sheds, and a fine office building. One secret of the success of this association lies in the fact that the manager was not afraid to assert his authority and compel the growers to conform to the rules and regulations of the institution which the growers themselves had established. If associations in this country would reduce their numbers and enforce their laws and rules more rigidly they would have a brighter future.

The time is now coming when the manager will be sorely tried. He must handle the markets with gloves and too many times the growers in the same manner. Selling fruit is a strenuous job and growers should render every assistance within their power. A name for good fruit can only be acquired and maintained through the efforts of the growers and under the direction of a competent manager the producer should do his best in preparing the fruit offered to the buyer.

FARM BULLETIN.

Leisure Kills.

We would call the attention of any farmer who is thinking of retiring to the following article by George Fitch in the "American Magazine." We have always doubted the pleasure a farmer got out of his retired life in the village or town. We always knew of his uselessness to the community. Now, here is a new phase of the retired farmer's life:

"Leisure has killed more people in Homeburg than work ever did. For years our biggest problem was the job of keeping our retired farmers alive. When a farmer has worked 40 years or so, and has accumulated a quarter section of land, and a few children who need high school education, he rents his farm and moves into town where he lives comfortably on \$50 a month and fills a tasty tomb in a very few years. It isn't so hard on the farmer's wife, because she takes her household into town with her and keeps busy. But when the farmer has settled down in town, far from a chance to work, he discovers that he has about 14 hours of leisure each day on his hands with nothing to do with them but to eat. Out of regard for his digestion he can't eat more than three hours a day. That leaves him 11 hours in which to go down town for the mail and do the chores around the house.

"He stands it pretty well the first year. The second is so long that he begins to lay plans for his centennial, and about the third year he takes to his bed and dies, with a sigh of relief. That's what leisure does to a Homeburg man who isn't used to it. And that is one of the reasons why, when I see a man in New York with nothing to do from choice, I think of the sad army of the unemployed in Homeburg draping themselves around the grain office every day in fine weather and wearing away weary years in idleness because they are too old to work and don't have to, anyway."

The Order under the Animal Contagious Diseases Act of date the 4th May, 1915, as amended by the Order of date the 15th May, 1915, has been further amended as follows:—

Hay from the State of Vermont will be admitted, provided each shipment is accompanied by an affidavit that the hay is the product of that State. (Sgd.) GEO. F. O'HALLORAN.

In the ordinary tale of an appalling strained folly. T during M broad da of May, in the e events a main so ever. T reaching the Uni and so present a has a bl hordes. —but, le item out the deat Royal S were pro to other after ha cause of fulness of a local the Lonc The troc up line, into the on to the signals p into the went on recital. cases be exceeds s ever tak sure th connecti world. be wise, much gr

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The le districts organizat overcome general c that chp more pr Efforts a girls, wh fishing st employm at once endeavor economic wages at labor in does not girls get alone, wh female la be obtain course is figure in at the fis naly do taking on they shou ring fishi specially these girl a peculiar diet in S and Storr move awa headquar the Balta shoals re of the fish will be at

Our Scottish Letter.

In these war days one's heart gets steeled to ordinary disasters. Every day brings its new tale of sorrow. Still there are catastrophes so appalling that even the most callous are constrained to recognize that this is no time for folly. Two such appalling events took place during May.—The torpedoing of the Lusitania in broad daylight on the afternoon of the seventh of May, and the double railway disaster at Gretna in the early morning of Saturday, May 22. Both events are without parallel and are likely to remain so for many a long day,—let us hope for ever. The sinking of the Lusitania may have far-reaching consequences. The negotiations between the United States and Germany proceed slowly, and so far as Great Britain is concerned her present course is to maintain a wise reserve. She has a big bill to settle with the Kaiser and his hordes. The Lusitania is a big item in that bill—but, let it never be forgotten, it is only one item out of many. The railway tragedy involved the deaths of many soldiers belonging to the Royal Scots, a crack Edinburgh regiment who were proceeding to the front and some belonging to other regiments who were returning wounded after having done their part at the front. The cause of the disaster was simplicity itself, forgetfulness on the part of a signalman that he had a local train shunted on to the up line to let the London express get past on the down line. The troop train came thundering along on the up line, with no signals against her and dashed into the local train, throwing the debris across on to the down line and then the express, with signals put against her too late, came dashing into the debris on the down line and the whole went on fire. The story is too horrible for recital. The agonies of the dying were in many cases beyond description and the death roll far exceeds that of any railway accident which has ever taken place in the British Isles. I am not sure that it does not exceed that recorded in connection with any railway accident in the world. We are living in a day when men should be wise, and reflect on the main things to a much greater degree than is usual with them.

May has been a month of unusual sunshine, yet in spite of that it has been true to its character as one of the most treacherous months in the whole year. We had sunshine, and rain, but we had also very cold "snaps" with frosts, and even heavy falls of snow. Perhaps in no year has the wisdom of the ancient saw,

Neer cast a clout
Till May be out,

been more signally justified. It was very dangerous to cast heavy clothing, even although it was unduly burdensome to wear such on some days. A warm, mild day would be succeeded by a day on which the east wind made itself familiar as on a day in March. The prevailing wind throughout the month was east and consequently, while the weather was in general favorable for the working of land, and field labor, in spite of scarcity of hands, is not as a rule unduly behind, there was comparatively little growth and pastures in particular have not been at all nourishing for stock. Grass is certainly behind and stock are not thriving any better than they should do.

The labor question has become acute in many districts but there is a likelihood that with organization the difficulties in most cases may be overcome. The education authorities are in general endeavoring to fix up school holidays so that children will be available to help at the more pressing tasks when need is greatest. Efforts are also being made to transfer the fisher girls, who used to be largely employed at the fishing stations around the coast to agricultural employment. This of course cannot be effected all at once and various organizations are at work endeavoring to perfect arrangements. There is an economic problem involved. These girls earn big wages at the fishing stations, whereas female labor in agriculture, where its employment holds does not command a very high figure. The fisher girls get an allowance of 8s a week for food alone, whereas, in some parts of Scotland, female labor in outdoor agricultural work, can be obtained for two shillings a day. This of course is not the general figure, but it is the figure in some parts. Naturally those who would at the fishing centres have been earning altogether nearly double that amount are not keen about taking on the new task. The main reason why they should do so is the total cessation of herring fishing on account of the war, this is specially true of the east coast fishing at which these girls were chiefly employed. The herring is a peculiar fish. The headquarters of the fishing fleet in Scottish waters will in June be in Barra and Stornoway on the West coast. Then shoals move away from the Hebrides, and in July the headquarters will be across the Pentland firth in the Balta sound in Shetland. Then after the shoals re-cross the Pentland and the headquarters of the fishing fleet during the latter part of July will be at Wick on the extreme north-east coast

of Scotland. Leaving them after a bit the headquarters shift to the Moray firth and then to Peterhead, Fraserburgh and Aberdeen, and these places continue to be headquarters for a considerable length of time during Autumn. In late autumn a big change takes place, and from that time until the close of the season in November the headquarters are at Lowestoft and Yarmouth on the Norfolk coast. The girls from the Hebrides and especially from the Island of Lewis follow the fishing to clean the herring and when the season is over they return home. Under normal conditions they take home about £20,000 or £30,000. Last year war broke out in the beginning of August when the east coast fishing was just beginning. Of course the whole fishing at once came to a standstill and many of the girls returned home penniless. There is of necessity no fishing this year. The girls are idle and agriculture needs labor. Hence the position already described.

Horse Breeding is being prosecuted on systematic lines. The scheme for registering stallions after an annual examination for soundness by officials appointed by the Board of Agriculture for Scotland, and the Board of Agriculture and Fisheries in England, has fairly caught on. For the current season 441 Clydesdale stallions are registered as sound in Scotland, and 88 of the same breed are registered in England. Last year the number registered in Scotland was 254, so that the scheme has rapidly advanced in popularity. The oldest Clydesdales on the two Registers are five sons of Baron's Pride—namely Baron Mitchell 10688, Pride of Blacon 10837, Silver Cup 11184, Everlasting 11331, and Baron Godolphin 11602, and also Conductor 11303.

These horses were foaled in 1898, 1899 and 1900, and it is surely an indication of the soundness of the breed that at their ages they have been examined and are passed as sound and free from hereditary disease. Messrs. A. & W. Montgomery, Kirkcudbright, have 78 horses on the Register. Matthew Marshall, Stranraer has 37. James Kilpatrick, Craigie, Mains, Kilmarnock, 27. William Dunlop, Dunure Mains, Ayr, 16, and G. A. Ferguson, Surradale, Elgin, an equal number. Robert Brydon, Seaham Harbour, has the largest number of Clydesdales registered in England. Many of the principal shows in Scotland are not to be held this year. This seems a wise decision. People generally have little heart for attending shows, which after all are to the majority a form of relaxation and amusement. It would be disastrous were the necessities of the military situation to demand the employment of all the railway lines, as might very well be the case, on the very days when stock and implements were being carried to a show, or when crowds wanted to attend. The Highland and Agricultural Society, the Glasgow Agricultural Society, the Perthshire Society, the Dumfries Society and many others have decided not to hold their shows. Some however are going on and during this week we have had quite good exhibitions of stock at Hamilton for Lanarkshire and Paisley for Renfrewshire.

Farmers are making money at present as almost every kind of farm product has advanced in price and at a great rate. Chiefly does this apply to beef and mutton. The former has not been as dear for sixty years. Last week as high as 71s 10d per cwt. (112 lbs.) live weight was recorded, and dead weight beef was selling at from 105s to 114s per cwt. of 112 lb. Cheese is also making an abnormal price, up to 80s and 85s and even 90s per cwt. of 112 lbs. that is for Cheddars, and I notice that it is this variety and the Dunlop which is distinctly Scots brand, which are making these relatively high prices. Cheshire does not seem to have advanced to anything like the same extent in proportion. The army is being largely fed on Cheddar Cheese. I believe the whole of the overseas imports are going to the army and the home product is being consumed at home. Hence its abnormal price.

Several pedigree stock sales have recently taken place. The lamented death of Lord Rothschild has necessitated the dispersion of his famous herd of Jersey cattle and Dairy Shorthorns. The former sold well enough but the Dairy Shorthorns which were dispersed under the hammer by Messrs. John Thornton & Co., London, on Thursday, 3rd June made unprecedented prices. 179 lots made an average price of £106 9s 1d each. 96 cows and calves made an average of £134 each. One three-year-old cow made 950 gs., another of the same age made 650 gs. and a third a little older made 320 gs. The calf from the 950 gs. cow made 160 gs. A Dairy Shorthorn is a Shorthorn registered in Coates' Herd Book but also registered with a milking pedigree in the Register of the Dairy Shorthorn Society. Whatever else that Society may not have done it has unquestionably been the means of greatly enhancing the value of Dairy Shorthorns. That there was need of some such control as the Dairy Shorthorn Society exerts is evident from the results. There was a risk of fashion in Shorthorns, so running on paper pedigree that milking qualities ran risk of being altogether overlooked. As a matter of fact some of the most fashionably bred Short-

horn families have the reputation of being very poor milkers. The development of milking properties within the limits of Coates' Herd Book is bound to have the best possible effect upon the breed as a whole. It is a safe principle that no female can be a good mother which is not a good milker. Nature's provision for the young is the mother's milk and the most profitable calves are those which follow dams that are good milkers. Cows that are good milkers are usually regular breeders, and this also is a great matter in connection with Shorthorns. A superior herd of Aberdeen-Angus cattle, that of Cluny in Strathspey has also lately been dispersed. The average price of 50 head was £46 17s 2d, quite a satisfactory price.

Auctioneers or salesmen in connection with the disposal of farm stock are generally supposed to make money. It is difficult to see why they should not. One of the best known of these gentlemen, Mr. Embleton, founder of a firm with marts in Berwick-on-Tweed, and the North of England, died recently and his fortune has been returned for probate at £28,538.

SCOTLAND YET.

The Outlook in Middlesex and Huron.

Toward the end of last week a representative of "The Farmer's Advocate" took a trip through the northern part of Middlesex county, and on up into the southern townships of Huron. Crops along the road traversed, were looking very well on the whole, but in some of the fields altogether too many Canadian thistles were in evidence and there was plenty of work still to be done with the spud or scythe if these fields are to be clean at harvest time. Nothing will pay the farmer better than to keep the weeds from going to seed in his grain crops, and it is time now that the supreme effort was being made to get this work done before haying comes on. A number of the old pastures, for this is a stock-grazing section, appear to be running out and many are becoming infested with ox-eye daisy, a weed which is difficult to control in permanent pastures once it becomes established. The cold, backward weather accompanied by frosts, which were prevalent throughout this district this spring, had the effect of keeping the grass back and pasture is, in some cases, none too good for this season of the year. However, recent heavy rains have improved matters and the pasture should go on and do well during the remainder of the summer. Large numbers of good steers are grazing in northern Middlesex county at the present time, being finished off on the grass, to be turned away as soon as the flush of the pasture season is over. This country is noted for the class of grass cattle it turns out.

Hay is going to be a light crop in the particular parts of these counties visited. While quite thick on the ground, it is very short and comparatively speaking late. Farmers will not rush to cutting the hay until it has reached maximum growth. No crop was injured more by the frost than this and the old meadows, composed largely of timothy, were even harder hit than the new seedings of red clover. Only one field of alfalfa was seen in a drive of over 80 miles. Several nice fields of alsike clover were just in full bloom and should yield profitable seed crops. A number of farmers are sowing a sprinkling of alsike in their general hay mixtures.

Grain crops throughout the district were making rapid growth. Barley was in the shot-blade stage, and oats were covering the ground well, while winter wheat was, for the most part, fully headed. This latter crop was extensively sown last fall and is a uniformly good stand although not quite as heavy in these counties as in some of the districts visited a week ago.

Roots and corn were coming along well. Some fine patches of mangels were noticed, some of them thinned, others ready to thin. A few large fields of sugar beets were just being thinned at the time of our trip. This crop promises to be fairly profitable for the grower. Not so many turnips are grown as formerly but small acreages were noticed on many farms. Some were just coming up others were being sown. The corn crop is evidently gaining in favor year by year. Large acreages are seen on most farms in nearly every district, although silos do not seem to be as common in north Middlesex and south Huron as they are in more pronounced dairy counties like Oxford.

During recent years a great deal of discussion has taken place over statute labor as performed on the country roads. Last week and the previous week, we happened to drive over many miles of Ontario roads upon which statute labor was then being done, and we must say that, so far as we could see, very good work was resulting from the system and as a general thing the roads were being well kept up where these men, taking an interest in their own particular localities, were putting their best into an endeavor to build and maintain satisfactory roads. The system is not as bad as some people would have us believe. We have seen far worse roads result from the commutation system so favored by some.

What Does a Ton of Hay Cost.

The higher prices for hay prevailing in many sections during the past year stimulated its sale and revived a tangible interest in the crop as a revenue producer. Leaving out of consideration the amount of fertility required for the growth of a good crop of hay, chiefly timothy, the sort usually marketed, and its feeding value is it not desirable to make specific enquiry as to the cost of production? Modern hay-making from start to finish requires an extensive implement plant and intelligent operation by men and horses. All this represents outlay but just how much in

dollars and cents per ton of hay safely housed in good, average condition? On a given field how much time of men and horses is required to cut, ted, rake, coil, team to the barn, unload and store? The number of averaged-sized loads will approximate the yield per acre and the rest of the calculation is easy. In different parts of the country this season a good many crop competitions are in progress but mostly with cereals and roots. A great deal of interest would be added if readers of "The Farmer's Advocate" would keep tab on the hay crop and send us a short letter with details of the results when the haying is completed. With definite information

presented as to the cost of making hay ready for sale, readers will be enabled to compare notes to advantage with a view to reducing outlay in future by more economical methods, and also to determine what ought to be obtained for good merchantable hay in order to afford a fair return from the land according to its value per acre or rental. Under what conditions is hay selling commendable farm practice and at what price per ton is this the case? Keep note of the crop as suggested and send the results to "The Farmer's Advocate" as soon as convenient. Who will be the first to report on the cost of hay production in 1915?

Canadian Fruit Packages.

Cultural methods of growing fruit have been fairly well agreed upon in Canada but heated discussions often arise over the use of various types of fruit packages. The fruit industry in Canada is divided, as regards packages, into three camps, The Nova Scotians have a barrel and other packages of their own liking; Ontario, the largest producer of trees and small fruits is made up of growers with various ideas and then there is the Pacific province or British Columbia. Owing to the difference in the markets to which these three great fruit producing districts cater there are different packages in use and only after years of conventions, conferences and discussions can we expect anything like a standard or universal package for the Dominion. The quality of the fruit must decide to some extent the nature of the container but when a consumer on the prairie buys a barrel he likes to know what a barrel means and if he desires a box of small fruits there may be a difference to him between the American full quart or the Canadian four-fifths. In other lines of merchandise a pound is a pound, a quart is a quart and a barrel is a barrel. The consumer must be considered in this matter of fruit transactions and the sooner the growers on both sides of the line as well as within our own confines can agree as to what is meant by a barrel, a box or a basket the quicker will some of the difficult marketing problems be solved. The intent of this article is not to renew the discussion on the matter of packages but to bring to the attention of producers the various containers in use and to acquaint consumers with the size and capacity of such packages.

Apples are still handled largely in barrels, although British Columbia growers make no use of such a package, it is still most common in Ontario and Nova Scotia. The barrel from the Atlantic Province conforms to the minimum requirements of the Inspection and Sale Act and contains 96 quarts. The dimensions for such must be:

Between heads, 26½ inches, inside measurement.
Head diameter, 17 inches, inside measurement.
Middle diameter, 18½ inches, inside measurement.

The use of a smaller barrel than thus specified is in violation of the Inspection and Sale Act. The Ontario barrel, however, is usually 1½ inches greater between heads and 1 inch larger in middle diameter. It is needless to relate here the advantages of each size. The advocates of the different sizes cling to their own ideas but this is one package as to which growers could agree without any material loss as the quality of the fruit is such that either size is suitable.

As to boxes the Canadian standardized model is 10 x 11 x 20 inches, inside measurements. The following specifications are recommended. The end pieces not less than ¾ inch nor more than ¾ inches thick; the sides not less than ¾ inch thick; the top and bottom ¼ inch thick. These dimensions cannot be changed to any great extent for if the ends are thicker there is unnecessary weight of wood and a clumsiness in appearance that detracts from the value of the package. If the sides are thicker than specified there is excessive weight while in anything less than ¾ inch the pressure exerted by the third and fourth layers will render the first and second layers slack. The top and bottom must have the proper swell when the box is full. Anything lighter than the specification will not likely stand while anything heavier will not spring enough and the fruit will be injured. Throughout, the wood should be of good quality. Broken packages detract from the value of the entire shipment. The best available wood for the manufacture of boxes is probably white spruce but a variety of material will do for the side and ends. However, there should be no disparity of colors in the different parts. The box should be put together with four-penny rosin nails. They are sometimes called waxed nails and they hold much better than the corrugated or smooth kinds. Four nails each should be used for the sides, top and bottom.

Cleats should be used on top and bottom. When nailing on top and bottom nail through the cleat. If there should be any tendency to split the cleats, soak them in water.

Even in the case of boxes there is a difference in the sizes as they appear on our markets. Those coming from the United States do not resemble ours in every respect and consumers are again confused. At the Fourth Dominion Conference of Fruit Growers of the Dominion held in Grimsby last September the following motion was carried: "Resolved that we respectfully petition our Government that such legal requirements as to size or capacity of fruit packages for Canadian fruit shall apply equally and as rigidly to fruit imported into Canada." If the Government should see fit to enact such a measure it would tend to standardize the capacity of the various fruit containers offered for sale.

The basket in common use for peaches, apples, plums, pears, cherries, grapes and other fruits is a most familiar package on the market of the Dominion. Baskets containing 6 quarts and 11 quarts are the most common sizes yet some consumers have been so unobservant as not to notice the difference in capacity amounting to 5 quarts. Even some growers, rather new at the fruit-growing game speak of baskets as though all were of the same size. The standard Canadian baskets in common use have the following dimensions:—

Eleven-quart baskets to be 5½ inches deep, perpendicularly, 18½ inches in length and 8 inches in width at the top of the basket, 16½ inches in length and 6½ inches in width at the bottom of the basket, as nearly exactly as practicable, all measurements to be inside of the veneer proper and not to include the top band.

Six-quart basket to be 4½ inches deep perpendicularly, 15½ inches in length and 7 inches in width at the top of the basket and 13½ inches in length and 5½ inches in width at the bottom, as nearly as practicable, all measurements to be inside of the veneer proper and not to include the top band.

There are instances where the standard baskets are not convenient packages. In the case of large peaches they will not pack three layers easily into a standard eleven-quart basket and two layers will not fill the container. In such a case growers have used the deep eleven-quart basket with success. This package of course contains the same quantity as the standard eleven-quart but the dimensions are altered. Jas. Aitchison, manager of the O. and W. at Grimsby believes that the majority of the best peaches can be packed in the standard basket but he is not adverse to the deep-eleven. Some shippers object to them because they sometimes make trouble in loading a car owing to the difference in size when compared with the ordinary basket. F. M. Clement, Director of the Vineland Experiment Station favors the "shallow-nine" for peaches of exceptional size, yet it should be remembered that such a basket must have stamped upon the side plainly in black letters at least three-quarters of an inch deep and wide the word "quart" preceded with the minimum number of quarts, omitting fractions, which the basket will hold when level full. This requirement is contained in the Inspection and Sale Act and applies to all baskets other than those containing fifteen quarts or more, eleven quarts, six quarts or two and two-fifths quarts, and manufactured, as directed in clause 2, section 326 of the Act.

It is necessary that consumers acquaint themselves with the size of baskets and what quantity they contain. A misunderstanding often arises over the six-quart and eleven-quart baskets but this is unwarranted for they have been the standard baskets long enough and have been used in such large quantities during the last few years that consumers and producers alike should suffer no abuses to arise out of the use of either.

It is to be hoped that growers will never again resort to the use of such baskets as were forced on them in the season of 1913. It was a year of abundance with small tree-fruit and a basket famine resulted. It is of vital importance that baskets be put together in the best possible form for the demands upon their strength is oftentimes excessive. A broken package is a poor seller; its own value is lessened and the appearance of the entire shipment is depreciated. The thickness of the wood in baskets is not so important as the quality of the same and the manner of nailing, however an inspection of

basket factories was carried out during the months of March and April, 1915 and Donald Johnson, the Dominion Fruit Commissioner, reports at the beginning of June 1915:—

"At the present time there is not a dishonest package being manufactured in Ontario. Corrections have been made in every instance where the dimensions had previously been wrong. All faulty material is being discarded and greater care is being given to proper nailing. It is firmly believed that there will be little or no complaint from Ontario growers this season as to the size and strength of packages."

The berry box recognized as standard in Canada contains either two-fifths or four-fifths of a quart. The smaller sizes are used chiefly in the West, but in Ontario the four-fifths is the common size. These are usually packed in crates holding 24 each. The handle on this package renders it convenient for handling, but in the opinion of some a larger crate with no handle would serve in the best interests of the shippers. Transportation employees could not then handle them so easily and so roughly as they are often accused of doing with the 24-box crate.

The berry box coming in from the United States usually contains a full quart or a full pint. On the Ontario markets this disparity in size between our box and that of the foreign competitor is not so serious as in other places. Ontario and United States berries meet in competition during the week this article appears, but previous and subsequent to this period the product of either one country or the other is practically alone on the market. Western conditions are somewhat different, and growers there find that competition is forcing them to use the full pint and the full quart. At the fruit-grower's conference at Grimsby they asked permission to use the full pint in the following resolution which was adopted: "Be it resolved that a full dry pint berry box be considered a legal measure, provided that in shape and form it shall not be made to deceive the public or imitate the four-fifths quart."

The wording of the previous resolution is significant. It has been reported that the contents of the Canadian four-fifths package has been dumped into the United States plant, and owing to the slight resemblance in size and form the consumer was given a pint of berries instead of four-fifths of a quart. This is the evil use to which containers are sometimes put, and which requires, at the hands of the government, the protection of both the producer and consumer. This safeguard is found in section 326 of the Inspection and Sale Act, which says: "Every box of berries or currants offered for sale and every berry box manufactured and offered for sale in Canada, shall be plainly marked on the side of the box, in black letters at least half an inch square with the word 'Short' unless it contains when level full as nearly exactly as practicable.

(a) At least four-fifths of a quart, or (b) two-fifths of a quart."

There are two phases of the fruit-packing art that may be developed. In one direction it will tend to make peaches a staple instead of a luxury, by packing in large containers and selling them at a price as low as possible and still return a fair profit to the producer. In another direction there is the fancy trade which calls for the choice article put up in special packages. At the Vineland Experiment Station many different containers are now in storage awaiting the on-coming fruit season. Baskets containing one bushel of peaches will be sold, thus allowing the consumer an opportunity of buying a quantity at a fair price, while for cherries small cartons will be used and they will contain eight 12-ounce paper boxes. In these the fruit will be packed so no stems are to be seen. It is a California package also used largely in British Columbia. In the opinion of the Director of the Station it is the work of associations and experiment stations to introduce new packs and packages. It requires constant shipments until consumers get acquainted with the brands and contents. In the meantime slight financial losses might discourage the individual grower, and cause him to relinquish any hold he had gained on the market through his previous efforts. However, many growers have their own special trade and customers, and in this case it is well to cater to

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their wants. The matter of packages is an important one, for it is so intimately connected with the shipment and sale of fruit that every grower should pay particular attention to the container, lest injury to the fruit and to the entire shipment, so detract from the value of the article as to considerably reduce the profits.

Raising a Dust.

By Peter McArthur.

Audubon wrote that the Guchas of the Pampas considered the mark of a human foot a sign of barbarism. Even the children lived on horseback, and if they ever walked at all it was only while catching a horse. Civilization has apparently moved forward. Now the mark of a horse's hoof on a public highway promises to be a sign of barbarism before long. Of course, I expect to be a barbarian for some time yet, but things have reached such a pass that when I go out on the public road now I lay back my ears and try to look as if I didn't care when the farmers give me the dust of their automobiles. When we moved to the country there were rumors of automobiles (then pronounced auto-mo-biles, accent on the "o" and "i" both long) being seen in the neighboring towns and villages, and on the leading roads. Now there are over fifty in Ekfrid township and its villages. At the next census we shall doubtless have to take into consideration the rolling stock of the farm as well as the live stock. But I am not sure that farmers are making a politic move in going in for joy-riding. When they want their grievances redressed their oppressors will simply point to the "cars" as evidences of prosperity. In the early part of the last century, when the oppressed pioneers needed relief from taxation, their representative threw Archie McKellar's old hat on the table in Parliament with the announcement that it was the best hat in the district. The plea was successful, but if the descendants of those pioneers went to petition Parliament in their automobiles they need not expect so patient a hearing. Of course, the cars make the country look prosperous, but I am not sure that the prosperity is real. I heard it said of one man that he practically lived in his car, and a neigh-

bor replied in that fine neighborly spirit with which we are familiar: "Well, he ought to. He mortgaged his home for all it was worth to get it." Of course, no one would deny the farmer the right to an automobile or any other luxury. He has earned it if any one has, but I remember that during a period of feverish prosperity before the passing of The McKinley Bill there was considerable rivalry as to which farmer should have the biggest organ or piano. In some cases they had to take out the side of the house to get the instrument in. Well, I hope the prosperity will last, but land values are very unstable. The McKinley Bill cut the price of Canadian land in half, and pianos and organs were a drug on the market. But I do not wish to appear to be opposed to automobiles. I would doubtless have one myself if I were not more afraid of the critics than our old driver used to be. Our present driver pays no more attention to them than they do to her, and if they sent up a better-flavored dust I would never notice that they are on the road.

* * * *

The progress of the war is constantly developing new possibilities. Militarism is adapting to its use not only the result of science, but the results of economic thought. It would seem that the telephone, wireless telegraph, automobile, the aeroplane, and all the recent triumphs of science were especially prepared for this horrible war. And now that the terrible drain on the human element of warfare is being felt, ideas that were regarded as too wildly radical for serious consideration are being taken over by militarism and put into force. The railroads and steamship lines have been taken over by the State in various countries, and there are indications that practically all the great industrial enterprises will come under State control during the continuance of the war. On top of this comes the suggestion that the whole social organization must be overhauled so that each man may serve the State according to his capacity. Even though a man may want to be a soldier on the firing line, if he is a skilled mechanic or scientist or worker in other special fields he may be ordered home to serve his country in the capacity in which he served in times of peace. This war touches every

portion of society, and every form of industry must be kept at its most efficient point if we are to succeed in the war of exhaustion by which we appear to be confronted. The farmer will have to put forth his best efforts on the farm, the mechanic will have to serve his country in the factory, and all the forces of transportation and distribution must be drilled to a wartime footing of efficiency. If things work out in this way, when peace is finally declared it will be found that we have society organized beyond the dreams of any socialist or Utopian philosopher. Every man will be working for the good of all, and serving in the capacity for which he is best fitted. Capitalism will have given way to State ownership, and the grafters and plunderers will all have lost their occupation. But, of course, this too is only a dream that fits in with this morning's news. To-morrow may show the gigantic struggle in a new light, and we shall have to prepare a new set of opinions.

To Plow at O.A.C.

With York County farmers who went to the Agricultural College on their annual excursion one day last week were the officers and representatives of the Ontario Plowmen's Association. While at the College a meeting of this executive decided to hold the annual Provincial plowing match on the Ontario Agricultural College farm the first week in November. The city of Guelph will contribute \$500 toward the prize money, and some provision is to be made for paying a part of the expenses of the winners of local matches throughout the province who may enter the provincial event. A banquet will be held at the College after the match is over, and at which the prizes will be donated.

The Hon. Martin Burrell is establishing two laboratories in New Brunswick and Prince Edward Island for special investigation work on potato and other plant diseases. G. C. Cunningham, a former O. A. C. student and later at the Vermont Agricultural Station, will be in charge in New Brunswick; and Paul Murphy, a graduate of the Royal College of Science at Dublin University, will take the P. E. I. office.

Toronto, Montreal, Buffalo, and Other Leading Markets.

Toronto.

Receipts at the Union Stock-yards, West Toronto, from Saturday to Monday morning, June 21, were 263 cars, comprising 2,050 cattle, 2,215 hogs, 536 sheep and lambs, 230 calves, and 2,602 horses, the latter being in transit to France. Cattle market active; steers and heifers 10c. to 15c. higher, about a dozen carloads reached \$8.50; cows were 15c. to 25c. lower on an average, at \$5 to \$7.25; bulls, \$6 to \$7.50; calves firm, at \$6 to \$10.50; light sheep, \$6 to \$7; heavy sheep, \$4 to \$5; yearlings, \$7 to \$8; lambs down 2c. per lb., at \$10 to \$12; hogs lower, selling at \$9.10, weighed off cars.

REVIEW OF LAST WEEK'S MARKETS
The total receipts of live stock at the City and Union Stock-yards for the past week were:

	City.	Union.	Total.
Cars	41	556	597
Cattle	217	3,137	3,354
Hogs	645	7,946	8,591
Sheep	318	1,033	1,351
Calves	102	827	929
Horses	170	5,495	5,665

The total receipts of live stock at the two markets for the corresponding week of 1914 were:

	City.	Union.	Total.
Cars	12	400	412
Cattle	123	3,712	3,835
Hogs	97	15,102	15,199
Sheep	312	2,420	2,732
Calves	23	1,078	1,101
Horses	51	52	103

The combined receipts of live stock at the two markets for the past week show an increase of 185 carloads, and 5,562 horses, and a decrease of 481 cattle, 6,608 hogs, 1,381 sheep and lambs, and 172 calves, compared with the corresponding week of 1914.

Receipts of live stock at the Toronto markets were liberal for this season of the year. The quality of the cattle, as a rule, while not as good as for many weeks past, was very good, considering that grass cattle have commenced to come. Trade was quiet, and about 25 cents per cwt. higher for the best grades, than at the close of the previous week. This, of course, was caused by the de-

liveries not being as large. The distillery cattle have been sold. E. L. Woodward, of Swift & Co., of Chicago, bought 211 car loads, all of which were shipped to New York. These cattle were fed by Dunn Bros., The Harris Abattoir Company, Lunness Rogers & Halligan, and were as fine a lot as was ever shipped from the various distilleries represented. Prices not made public. P. Burns & Co. bought a few heavy cows of choice quality for shipment to France. A few lots of heavy steers sold at \$8.40, and one or two lots at \$8.50, but the bulk of the choice heavy cattle sold at \$8.25 to \$8.35. The demand for stockers and feeders was limited, a few small orders being filled for some of the States not under quarantine. There was a fair demand for choice milkers and springers, but other grades were slow sale at values given. Deliveries of veal calves were limited, which caused values to be very firm for all of good quality. Sheep and lambs of good quality were not plentiful, especially lambs, and prices advanced, some choice lots of lambs selling up to 14 cents per lb. The hog market was a shade easier on account of liberal receipts from the Northwest, but prices on the Toronto market are fully \$2 per cwt. higher than at the leading American markets.

Butchers' Cattle.—Choice heavy steers, \$8.25 to \$8.50; choice butchers' steers and heifers, \$8.20 to \$8.35; good butchers', \$8 to \$8.20; medium, \$7.60 to \$7.90; common, \$7.25 to \$7.50; choice cows, \$7.25 to \$7.50; good cows, \$6.80 to \$7.15; common to medium, \$5.25 to \$6.50; canners, \$4.50 to \$5.25; bulls, \$6 to \$7.50.

Stockers and Feeders.—Good to choice steers, 800 to 900 lbs., \$7.25 to \$7.50, and a few at \$7.75; medium steers, 700 to 800 lbs., \$6.75 to \$7.15; stockers, 500 to 650 lbs., \$5.50 to \$6.25.

Milkers and Springers.—Choice fresh milkers and forward springers sold at \$70 to \$90 each; medium to good at \$60 to \$70; common at \$45 to \$55 each, and slow sales.

Veal Calves.—Choice veal calves sold at \$9 to \$10.50; good, \$7.75 to \$8.75; medium, \$7 to \$7.75; common, \$5 to \$6.50.

Sheep and Lambs.—Sheep common at \$4 to \$7; yearlings at \$7 to \$8; spring lambs

at 12c. to 14c. per lb. Heavy fat sheep are not wanted.

Hogs.—Selects, weighed off cars, sold from \$9.50 to \$9.70, the bulk going at \$9.60 to \$9.65.

HORSE MARKET.

Not many horses were bought during the past week on account of there being few or no boats to be obtained for shipping them to the seat of war. There are about 5,000 horses at the Union Stock-yards awaiting boats to take them away. These were bought across the lines. Robert Graham and F. S. Macdonald, T. V. O., purchased 22 horses per day on an average, for the Canadian Remount Commission, at the City cattle yards. Mr. Graham reported prices paid as being about the same as for last week, which was \$175 to \$200 for cavalry purposes, and \$190 to \$200 for artillery.

BREADSTUFFS.

Wheat.—Ontario, No. 2 winter, \$1.15 to \$1.17, outside; Manitoba, No. 1 northern, \$1.24 to \$1.25; No. 2 northern, \$1.21½ to \$1.22½; No. 3 northern, \$1.20½ to \$1.21½, track, bay points.

Oats.—Ontario, No. 2 white, 55c. to 56c., outside; No. 3, 54c. to 55c., outside. Manitoba oats, No. 2, 59c. to 60c.; No. 3, 58c. to 59c., lake ports.

Corn.—American, No. 2 yellow, 80c. to 80½c., track, Toronto; Canadian, No. 2 yellow, 78c., track, Toronto.

Rye.—Outside, No. 2, \$1.05 to \$1.10.

Barley.—For malting, 70c. to 73c., outside; feed barley, 65c., outside.

Buckwheat.—No. 2, 75c. to 77c., outside.

Rolled Oats.—Per bag of 90 lbs., \$3.40.

Flour.—Manitoba flour—Prices at Toronto were: First patents, \$7.20; second patents, \$6.70; in cotton, 10c. more; strong bakers', \$6.50; Ontario, 90-per cent. winter-wheat patents, \$5, seaboard, or Toronto freights, in bags.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, No. 1, \$16 to \$17.50; No. 2, \$14 to \$15.50, track, Toronto.

Bran.—Manitoba, \$26, track, Toronto; shorts, \$28.

Straw.—Baled, car lots, track, Toronto, \$7 to \$8.

COUNTRY PRODUCE.

Butter.—Butter remained nearly stationary on the wholesales during the past week, creamery pound squares selling at 27c. to 29c. per lb.; creamery solids at 26c. to 28c. per lb., and dairy butter at 22c. to 25c. per lb.

Eggs.—New-laid eggs were slightly easier, selling at 22c. to 23c. per dozen.

Cheese.—New, large, 17c.; twins, 17½c.

Honey.—Extracted, 12c.; comb, \$2.50 to \$3 per dozen sections.

Beans.—Hand-picked, per bushel, \$3.40; primes, \$3.20.

Potatoes.—Ontario potatoes are slightly firmer, selling at 45c. per bag, car lots, track, Toronto, and New Brunswick at 48½c. to 50c. per bag, track, Toronto.

Poultry.—Turkeys, per lb., 17c.; spring ducks, 22c. to 25c. per lb.; spring chickens, 30c. per lb.; hens, 12c. per lb.; squabs, per dozen, 10 ounces, \$3.60 (dressed).

HIDES AND SKINS.

City hides, flat 14c.; country hides, cured, 13c. to 14c.; country hides, part cured, 12c. to 13c.; country hides, green, 12c.; calf skins, per lb., 14c.; kip skins, per lb., 12c.; sheep skins, \$1.50 to \$2; horse hair, per lb., 38c. to 40c.; horse hides, No. 1, \$3.50 to \$4.50; lamb skins and pelts, 25c. to 35c.; tallow, No. 1, per lb., 5½c. to 7c.; wool, unwashed, coarse, 25c.; wool, unwashed, fine, 27c.; wool, washed, coarse, 32c.; wool, washed, fine, 37c.; rejections and cotts, 25c.

FRUITS AND VEGETABLES.

Canadian strawberries, gooseberries and cherries are gradually increasing in quality, and are now selling as follows: Strawberries, 11c. to 14c. per box; gooseberries, \$1 to \$1.50 per 11-quart basket, and cherries at \$1.25 to \$2 per 11-quart basket.

New beets (Canadian) are coming in freely, and on Thursday declined heavily in price, selling at 20c. to 30c. per dozen bunches.

The new carrots (Canadian) are almost unsalable on account of their small size. Canadian cabbage (new) sold at \$1.25 per bushel hamper.

Apples.—American, \$3 per box; cantaloupes, \$4.50 to \$5 per case; grape-fruit, Cuban, \$3.50 to \$4.50 per case; lemons,

THE ROYAL BANK OF CANADA

Capital Authorized - - \$ 25,000,000
 Capital Paid up - - - 11,500,000
 Reserve Funds - - - 13,000,000
 Total Assets - - - - 180,000,000

HEAD OFFICE: MONTREAL
 Branches throughout every Province
 of the Dominion of Canada

Accounts of Farmers
 Invited

Sale Notes Collected

**Savings Department at all
 Branches**

new Verdilli, \$4 to \$4.50 per case; California, \$3.25 to \$3.50 per case; oranges, \$3.75 to \$4.25 per case; pine-apples, Cuban, \$2.50 to \$2.85 per case; strawberries, Canadian, 11c. to 14c. per box; American, 12½c. to 14c. per box; asparagus, 75c. to \$1.25 per 11-quart basket; beans, green and wax, \$1.75 to \$2 per hamper; beets, 20c. to 30c. per dozen bunches; cabbage, new, imported, \$1.50 per case; Canadian, \$1 to \$1.25 per bushel hamper; cucumbers, Canadian hot-house, \$1 to \$1.25 per 11-quart basket; imported, \$1.50 to \$1.75 per hamper; onions, Texas Bermudas, \$1.50 per 50-lb. case; lettuce, leaf, 20c. to 30c. per dozen; potatoes, Bermudas (new), \$7.25 per barrel, \$2.75 per bushel; Louisiana, \$4 per barrel, \$2 per bushel; tomatoes, Mississippi and Texas, \$1.25 to \$1.35 per case; Floridas, \$2 to \$2.75 per case.

Montreal.

Trade in cattle is generally slow at this time of year, and this year is no exception. Warm, wet weather, such as that now prevailing, is not conducive to activity in the market. No changes of importance have taken place in price. Good steers sold as high as 8½c. to 9½c. per lb., medium, 7½c. to 8c.; while lower grades ranged down to 6c. per lb. Butchers' cows and bulls ranged generally from around 4c. to 6½c. per lb., according to quality. Sheep were in very good demand at 5½c. to 6½c. per lb., and yearling lambs sold freely at 7c. to 7½c. Spring lambs were in larger supply, and prices ranged from \$5.50 to \$6 each. Calves were plentiful, and prices ranged from \$1.50 to \$4 for ordinary stock, and up to \$10 each for the best. The market for hogs was easier in sympathy with Western markets and prices were slightly lower. Sales of selected hogs were made at 9½c. to 9¾c., while mixed lots of heavier stock were sold at 8½c. to 9c. per lb., weighed off cars.

Horses.—Prices of horses were unchanged, as follows: Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$250 to \$300 each; light draft, weighing from 1,400 to 1,500 lbs., \$175 to \$225 each; small horses, \$175 to \$200; culls, \$50 to \$100 each, and fancy saddle and carriage animals, \$300 to \$400 each.

Dressed Hogs.—Owing to declines which took place in the market for live hogs, dressed stock also came down in price a small fraction. Last week purchases were made at 13½c. to 13¾c. per lb. for abattoir-dressed, selected Ontario hogs, and at 13¼c. to 13½c. for Manitoba hogs.

Potatoes.—This has been a remarkable year for potatoes, prices having generally been less than half the usual figure. Thus late in the season purchases were still being made at 42½c. for 90 lbs. car lots, track. Green Mountains, with jobbing prices 10c. to 15c. above these figures.

Honey and Syrup.—Maple syrup was steady at 65c. to 70c. for 8-lb. tins, and up to \$1.20 for 13-lb. tins. Sugar was 9c. to 10c. per lb. White clover comb honey was 14½c. to 16c. per lb.; extracted, 11c. to 12c.; dark and strained, 8c. to 9c. per lb.

Eggs.—Demand, both for domestic and export trade continued good, and receipts kept up well. Prices were firm.

Straight-gathered stock was quoted at 22c. to 23c., while selected was a little higher at 24c. to 25c., and No. 2 was steady at 19c. to 20c.

Butter.—Receipts of butter were fairly large, but consumption is keeping up well. The quality was excellent and prices were steady. Finest creamery was quoted at 27½c. to 28c. per lb., while fine creamery was 27c. to 27½c., and seconds, 26c. to 26½c.

Cheese.—Prices, though still high, declined a considerable fraction during the week. Quotations were from 16½c. to 17c. for finest western colored, with white at 16½c. Finest eastern was 15½c. to 15¾c., for white or colored, with undergrades at ½c. less.

Grain.—The wheat market continued weak and local oats were lower with Western rather higher. Local No. 2 white oats sold at 59c.; No. 3 were 58c. per bushel, and No. 4, were 57c., ex-store. The Canadian Western were 59½c. for No. 3 and extra No. 1 feed. No. 1 feed were 58½c., and No. 2 feed were 57½c. Beans were steady at \$3.25 for 1½ lb. pickers; \$3 for 3 lb., and \$2.90 for 5 lb. Cheaper stock was \$2.75 in car lots.

Flour.—The flour market was steady, so far as Manitoba patents were concerned, but Ontario was much lower than the previous week. Quotations were \$7.30 per bushel for Manitoba first patents; \$6.80 for seconds, and \$6.60 for strong bakers in bags. Ontario patents were \$6.80, and straight rollers were \$6.40 to \$6.50 per barrel in wood, and the latter at \$3.05 per bag.

Millfeed.—Bran was \$26 per ton in bags; shorts, \$28; middlings, \$33 to \$34 per ton; mouille higher at \$38 to \$40 for pure, and \$36 to \$37 for mixed, bags included.

Hay.—No. 1 pressed hay, Montreal, extra, was \$21 to \$21.50 per ton; No. 2 extra, was \$20 to \$20.50; and No. 2, \$19 to \$19.50.

Hides.—Prices were up 1c. per lb. last week, on hides and calf skins. Beef hides were at 18c., 19c. and 20c. for Nos. 3, 2 and 1 respectively, and calf skins were 19c. per lb. Lamb skins were 35c. each. Horse hides, \$1.50 for No. 2 to \$2.50 each for No. 1. Tallow was 6c. per lb. for refined, and 2½c. for crude.

Seeds.—Prices were \$8.50 to \$12 for timothy per 100 lbs., and \$17 to \$22 per bushel of 60 lbs., for red clover and for alsike.

Buffalo.

Cattle.—Receipts were liberal here last week, and with the larger proportion of the offerings running to grassy grades, values were declined generally, a few prime shipping steers bringing about steady prices, as compared with the previous week. About fifty loads of shipping cattle were offered, and these were all cleaned up at the close of the day's business Monday, best steers running from \$9 to \$9.25. Best Canadian steers sold up to \$8.75, there being several loads of Canadian steers offered, and quite a lot of butchering stuff from the Dominion. Heavy fat Canadian heifers ranged from \$7.80 to \$8.25. On a class of medium and plain steers, especially where they had been on the grass and were not strictly dry-fed, prices were 15c. to 25c. lower. Best handy butchering steers sold at about steady prices, range on these being from \$8 to \$8.50, with the best yearlings offered the past week at \$8.75. Best handy heifers brought about the previous week's money, but a light and common grassy kind showed lower values. In fact, most of the medium and commoner grassy butchering stuff looked from 25c. to 40c. lower. Sellers report a margin of from 75c. to a dollar difference between the strictly dry-fed and grassy grades. This is the season of the year when the grassers come plentifully. Bulls generally last week were a quarter lower, seven cents taking most of the best bulls, with sales on fancy kinds now and then at \$7.25 to \$7.50. Canner and cutter stuff looked about steady. Sales appear to be the weakest on a medium kind of steer and cow stuff. Export trade has been stimulated somewhat with the packers sending steers into France for the Allies. Big packers made very heavy purchases of shipping steers in the Do-

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minion last week, and it is understood here that possibly some of these may find their way to the Allies. Quite a lot of American frozen beef has been contracted for by British representatives for the armies. This outlet will no doubt stimulate the beef trade to an extent. Very few—in fact none here—are expecting any lower prices on strictly grain-finished cattle. They do look for lower values on grassers, which show poor killing percentages and hang up dark and prove poor competition, as against the dry-fed, white beef. Buffalo has been receiving shipping steers in liberal numbers right along, but a let-up is looked for from now on, as the supply appears pretty well exhausted. General belief is that higher values may be expected on the strictly prime shipping steers within the next few weeks. Receipts last week were 5,175 head, as against 4,179 for the previous week, and 5,065 for the corresponding period last year. Quotations:

Shipping Steers.—Choice to prime, \$9 to \$9.25; fair to good, \$8.40 to \$8.65; plain, \$7.50 to \$8.25.

Butchering steers.—Choice heavy, \$8.50 to \$8.75; fair to good, \$7.75 to \$8; best handy, \$8.40 to \$8.75; common to good, \$7.50 to \$7.75; yearlings, \$8 to \$9.

Cows and Heifers.—Prime weighty heifers, \$7.75 to \$8.50; best handy butcher heifers, \$7.25 to \$7.65; common to good, \$6.25 to \$6.75; best heavy fat cows, \$7.25 to \$7.50; good butchering cows, \$6 to \$6.50; medium to good, \$5.50 to \$6; cutters, \$4.50 to \$5; canners, fair to best, \$4 to \$4.25.

Bulls.—Best heavy, \$6.75 to \$7; good butchering, \$6.50 to \$7.

Above quotations are for grain-feds. Grassy grades are quotable from 75c. to \$1 under the grain-fed cattle.

Hogs.—Trade was good again last week, and prices showed another narrow range. Monday the bulk of all grades sold at \$8.05; Tuesday the bulk of the crop sold at \$8; Wednesday's top was \$8.05, although general market for best grades was \$8, few \$7.95, pigs moving at \$7.75; Thursday it was generally an \$8 market for all grades, except pigs, landing kinds selling at \$7.75, and Friday a few decks that carried a heavy top moved at \$8.05, with bulk of the packers' grades selling at \$8.10. Pigs were slow, ranging from \$7.50 to \$7.75. Roughs, \$6.50 to \$6.75, and stags mostly \$5.50 down. Receipts last week totalled approximately 30,500 head, being against 33,911 head for the previous week, and 40,000 head for the same week a year ago.

Sheep and Lambs.—Supply last week was about the lightest in the history of the yards, there being only 3,100 head, as compared with 3,907 head for the week before, and 5,400 head for the same week a year ago. Lamb values, barring the first two days, were given a hard jolt the past week. On Monday and Tuesday top springers sold up to \$12.50, and yearlings brought up to \$10.50, and before the week was out buyers got top spring lambs down to \$10 and \$10.50, and winter lambs on Friday could not be quoted above \$8.50, Friday's market on lambs being fully \$2 per cwt. lower than Monday. Sheep were steady the fore part of the week, and the last half values were a quarter lower. Friday top wether sheep were quoted from \$6.25 to \$6.50, and the spread on ewes was from \$4.50 to \$5.50, as to weight, heavy ewes being hard to place above \$4.50.

Calves.—Market was slow last week. Monday tops sold at \$10; Tuesday nothing brought above \$9.75; Wednesday and Thursday best lots moved at \$9.50 and \$9.75, few reaching \$10, and Friday's range on tops was from \$10 to \$10.40, general market being \$10 and \$10.25. Heavy fat calves were discriminated against, and buyers got some weighing a little better than 200 pounds down to \$7.50. Cull grades were in good demand, and sold mostly from \$8.50 down. Receipts last week were 2,825 head, week before there were 4,091 head, and for the same week a year ago 3,150 head.

Cheese Markets.

Vankleek Hill, 15½c.; Kingston, 15 7-16c.; Brockville, 15½c. and 15 11-16c.; Belleville, 15½c., 15 7-16c., 15 5-16c.; Perth, 15c.; St. Hyacinthe, Que., 14c.; Campbellford, 15½c.; Stirling, 15 3-16c.; Kemptville, 15½c.; Cornwall, 16½c., 16c.; Iroquois, 15½c.; Picton, 16½c., 16 1-16c.; Napanee, 15½c.; Montreal, finest Westerns, 17c. to 17½c.; finest Easterns, 16½c. to 16c.

Chicago.

Cattle.—Beeves, \$6.80 to \$9.50; Western steers, \$7 to \$8.25; cows and heifers, \$4.25 to \$9; calves, \$7 to \$9.75.

Hogs.—Light, \$7.50 to \$7.85; mixed, \$7.30 to \$7.85; heavy, \$7 to \$7.70; rough, \$7 to \$7.20; pigs, \$6 to \$7.50; bulk of sales, \$7.50 to \$7.75.

Sheep and Lambs.—Sheep, native, \$5.50 to \$6.40; lambs, native, \$6.75 to \$9.25; springs, \$6.25 to \$9.75.

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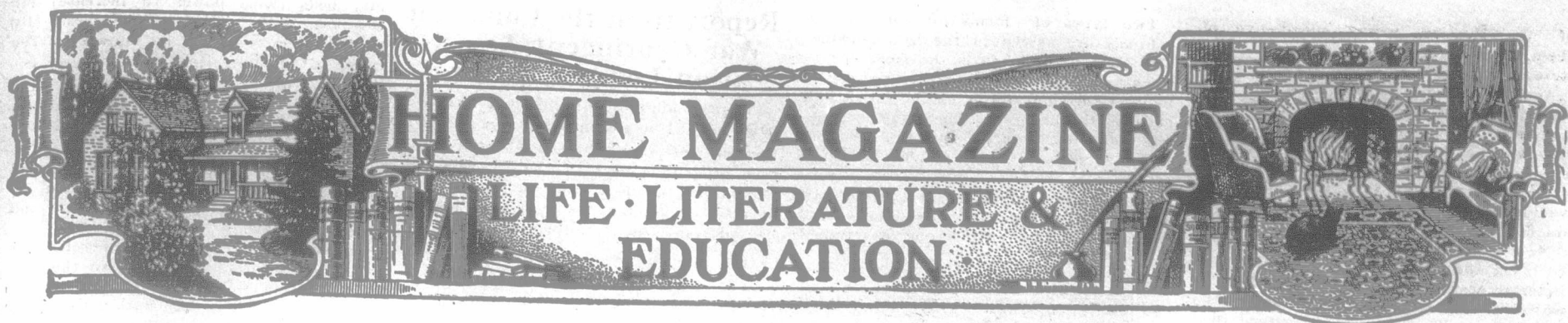
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Struggle.

By Sidney Lanier.

My soul is like the oar that momentarily
Dies in a desperate stress beneath the
wave,
Then glitters out again and sweeps the
sea—
Each second I'm new-born from some
new grave.

If I Should Die.

The following poem, one of those produced by the war, was written by the English poet, Rupert Brooke, who enlisted and died recently of sunstroke in the Dardanelles. He was buried on the island of Lemnos.

If I should die, think only this of me:
That there's some corner of a foreign
field
That is forever England. There shall be
In that rich earth a richer dust concealed;
A dust whom England bore, shaped,
made aware,
Gave, once, her flowers to love, her
ways to roam.
A body of England's, breathing English
air,
Washed by the rivers, blest by suns of
home.
And think, this heart, all evil shed away,
A pulse in the eternal mind, no less
Gives somewhere back the thoughts
by England given;
Her sights and sounds; dreams happy as
her day;
And laughter, learnt of friends; and
gentleness,
In hearts at peace, under an English
heaven.

Browsings Among the Books.

A BATTLEFIELD.

[The following extract is a chapter from Will Levington Comfort's novel, "Red Fleece," one of the most remarkable books yet called forth by the war. It is a story based on the Russian army's advance into Galicia. The "Peter" referred to is an American war correspondent. "Samarc," who accompanies him into the charge is a Russian, who, while in charge of a machine-gun a short time before, has had part of his face shot off, and goes into the fray now, all bandaged as he is, in the hope of meeting death. The "Spenski" referred to as having been killed, was a friend of Samarc's, a lens-maker of wonderful genius. The girl mentioned at the close is the daughter of a revolutionist. Peter Mowbray is in love with her, and so eventually draws suspicion on himself. The book is published by The Musson Book Company, Toronto.]

Peter had pitied the infantry formerly from a hill, having stood with a battery as it sprayed the Austrian lines. He had watched the Austrian machines pouring steel upon the Russians also. There had been emotion; he had felt the shame of it powerfully on this very morning, but now he reflected, with a touch of levity that his pity had not been adequate. At the present juncture he belonged to the sacrifice. The process was reversed; the globe of his experience shortly to be made complete. He would have the effects of light and darkness from the vantage of the preying and the preyed upon.

Peter had never been actually down among men before. He had watched men, studied them sincerely, passed them in the street, reflected upon their problems. At the same time, his personal impetus had always been away from men, his a different purpose, a different

aim. He was one now, one in the massed destiny of the command, one to obey. Only by falling could he be free from this extraordinary authority of the army. Moreover, he felt that the motive energizing this authority was not of the human but of the tiger.

He might have thought of all this before, as he had thought of death as one thing for the outsider and a different thing for the little lens-maker he liked so well. But this was experience, not conjecture. He was an atom of the charge. The army authority disrupted his moral sense. It bound and gagged him. No imagination could have constructed his vital and creative force as this adventure, in which he was caught up like a chip and carried forward in a rush of animal power. Fear had no part in his revulsion, but the break of his will.

He saw that the rankers leaned on each other; that there was not yet in the peasant faces about him a single separate individual relation to the impending peril. These men might have seen others fall by the hundreds, but then faith was in the command, their law its law. Peter saw that they were in a sense like men parading through city streets, who endure the eyes of the crowds because they are part of a line. It was the eternal illusion of numbers again—the elbow brush, the heat, the breath, the muttering of men—this atmosphere that the military machine breathed. Standing alone, most of them would have fallen from fear.

He smelled the unwashed crowd. Under all the bronze that life in the open had given the command was the lardy look of earth-born men, close-to-the-ground men; these were the hordes that put on pounds and size, the rudiment of a mind, the momentary ignition of soul perhaps in moments such as now—and pass to the earth again. Yet the history of

heat, the vast solution draining his vitality. He could have given himself to the white fire of a group of men like Spenski, Abel, Fallows, Poltneck, perhaps—but to give himself to this. . . . They were stretching out now as skirmishers, the crush ended. Entire figures of men could be seen, instead of necks, beards, and shoulders. Samarc gripped his arm, the other hand pointing to a little red-haired boy who ran, crouched, sped on again, halted to look, in the true squirrel fashion of advance, which is the approved procedure of skirmishers. He talked to himself, appeared lost in absorption, reminded one continually of Spenski when his face was averted—and was just one of miles of infantry.

Their faces looked cold now; a part of the gray tone so often observed. The officers fought to stretch them out. Every line of fear that the human mouth can express Peter saw. Now the drum of the Austrian pieces. It was not as they had heard it in the heights, but like an encore at first—as if some tremendous mass of men in a wooden gallery had started a buffeting of feet. The valley muffled the volleys; the actual steel was not heard until it neared like a rain torrent; indeed it found their immediate lines before they heard the murderous cutting of the air. The Austrian gunners were placed for enfilading, so that a fraction of point gave them impaling force and a wide swath in the ranks.

Peter saw the little red head cocked forward as if to listen to the nearing gusts of steel.

Now men were down and crying out. The fire was like that of a hostile regiment concentrating its volley upon a little knot of soldiers—the air was whipped, wild with throbbing missiles. Supernatural fear was the answer from the very souls of men. Their prayer (in Mowbray's conception) was not for life, but for cessation. Yet the machines

before, and turned like a sick man, his eyes rolling, to learn if it were a dream or not. Yes, Redhead had fallen. Samarc was crawling toward him on his knees. Peter writhed forward, too, but disliking the movement lest it bring the guns upon them again. He forgot that Redhead was muttering about "the storm."

"Are you hit hard, boy?" Peter called. There were others about—a whole line of fallen, but they saw just this one—his cheek to the dirt, his mouth moving queerly. He was young, seventeen or eighteen, and much bewildered, the gray, clayey hue upon him, but not at all uncouth. Samarc felt his spine, turned him. The wound was in his body. Just now Redhead saw the effigy that was Samarc. He had been watching Peter before.

His mouth opened, eyes seemed to settle back into a red gleam of horror, his face swung around into the dirt. Peter would have given his arm to spare Samarc that. No sound from under the cloth—only a breath. Samarc shouldered him, raised himself with the burden.

There are pressures of will. One turns on a certain force to meet an obstacle, and it is exhausted. There are other sources of power, but one brushes death to summon them. Far ahead they saw the remnant making cover. Now Peter noted that there was human need at every step. They lay in all positions, squirmed their faces up to him and implored. The few were still; the many writhed. He looked for a small one. He had never lifted a man, and was surprised when one came up and rolled as if by magic across his back. It was so easy that he wanted to take others.

"I will come back," he called to the faces.

He meant to come back as he said it. He wanted to bring them all in. He had no hate for the Austrian gunners, because he had seen Samarc and Spenski at the same work, and he knew that the heart of man changes in a day. He would have helped the little undersurgeon had he been there. A moujik arose from his knees in front of them, as they staggered on. He was stunned, bewildered, blinded, but he could hear.

"Come on—we're going back," Peter said.

The other held out his hand gropingly. Peter placed the flap of his coat in it, and the moujik stumblingly followed. . . . Another soldier on his knees barred the way.

"We're going back," Peter said. "Come on. You can crawl—"

The soldier set out eagerly to obey, as if it had been a great boon to follow with his own strength. It was the mightiest episode of the day to Peter Mowbray. "My God, how they obey men!" he said, with awe. "They COULD be led right—peasants who obey like that!"

There was singing all about him—not of bullets, though this, little movement on the field drew a thin, uncertain, long-range fire from some intrenchment (apparently it was not enough to start a machine)—a low singing as of wells of gladness reaching the surface. Peter was torn with the agony of the field, yet thrilling with happiness,—as if there was liberation somewhere within. He turned to the crawling one who inspired him:

"We're all hurt, but we're going back to bed. Come on—you're doing famously—"

The back bobbed to greater effort. The blind one held him fast, and the Redhead left his trail of blood and murmured about "the storm." . . . It was a long range for the rifles, and seemed as harmless as sandflies after the horror of horns they had known. . . . They were alone. They saw the heaped rims



Wounded Canadian Soldiers in England.

Some of the Canadians who saved the Allies' line at St. Julien.

Europe was to be written upon a surface like this; this, the soil of the future. It was close to chaos, but as yet undefiled by man. This was the newest product of earth, the new terrific fecundity of the North that had alarmed lower Europe; these were the peasant millions as yet unfathered, strong as yet only as bulls are strong, gregarious, almost without memory; their terror, pain, passion, hope, genius, not individual yet, but in the solution of the crowds.

Peter Mowbray's shock was the loss of the sense of self; his battle to retain this sense. He seemed to fuse in the

held them with infernal leisure as one holds the stream from a garden hose to a spot of clay clinging to masonry.

In all postures the soldiers met the gale, with every answering sound. Then falling, rising, crawling, the remnant went back. It was not pain nor death nor wounds that mattered—but the hurtling concussions in the air, the plague of steel. . . .

It stopped. Peter lay exhausted an instant. He felt no hurt. He was down because one could not stand in that sweep of projectiles. He recalled that he had seen the red head fall a moment



The 2nd Sportsman's Battalion Going to Camp at Romford, Essex, England.
Underwood & Underwood.

article, but the Central Committee may use it for the need of the moment.

And the needs are increasing. We want big subscriptions; and we want lots of little ones, too.

Even enough to buy a single individual towel—about the size of a guest towel, which the soldier may tuck inside his tunic,—something bigger than a handkerchief—to wipe hands and face on, when he has a chance to wash them; perhaps even sometimes when he hasn't!

NOW! What about Subscriptions? And Donations?

All speak at once. We don't mind!
MRS. BOWKER, Secretary.

[Money may be sent for any of the above purposes through the "Dollar Chain" of "The Farmer's Advocate and Home Magazine."—Ed.]

German Philosophy Self-contradictory.

"Might is Right," the paramount maxim of German philosophy and the keystone of its "culture" appears to be not merely false in fact and principle, but self-contradictory. Based ostensibly on the principle of the survival of the "fittest," it yet sacrifices the "fittest" in its military propaganda. The best go to war; the best are slain. Blowing men, women and children to pieces with shot and shell is not the way to perpetuate either the "fit" or the "unfit." War imperils all, and destroys many of the bravest and the best, leaving the weaker with heavier burdens to bear. If this is evolution, it is evolution backward. Carry their principle into all the affairs and relations of life, and the earth would speedily return to chaos. Let all differences be decided by physical force, and what would happen? There would be disorder, riot, and carnage everywhere. The community, the family would each be divided against itself; but the civil law steps in and says, "Thou shalt not." What is criminal with the individual and the community is, by law and custom, made legitimate with the nation. The killing of an individual is homicide or murder; the killing of the million is prowess and glory. Is this sound logic or true philosophy? "Might is Right," forsooth! What would be said of a mother killing her babe because she possesses the "might" to do so—because she is the stronger? "Insufferable atrocity, preposterous!" you exclaim. Yet more horrible is the slaughter of millions of men and women—helpless babes included.

The truth is, might is NOT necessarily and intrinsically right. The moral phase must be considered. The equation "might is right," or might equals right, must be ethical, reasonable, and humane.

Kent Co., Ont. W. J. WAY.

Hope's Quiet Hour.

A Devout Soldier.

There was a certain man in Cesarea called Cornelius, a centurion of the band called the Italian band, a devout man, and one that feared God with all his house, which gave much alms to the people, and prayed to God alway . . . he called a devout soldier of them that waited on him continually.—Acts x: 1, 2, 7.

Giver of strength, O bless and aid
Thy servants 'gainst the foe arrayed;
Go forth with them to fight!
In battle's storm their shelter be;
The Spirit grant, of unity,
Of counsel, and of might.

—Elizabeth Wordsworth, 1885.

I have no intention of talking about Cornelius to-day. My object in choosing the above text is to show that even in the army of Rome "devout" soldiers were to be found—soldiers whose prayers and alms were accepted by God. The practical faith of Cornelius was rewarded by the gift of clearer light, he received

the Holy Ghost and was baptized in the Name of the Lord.

A few weeks ago a book came into my possession which was written about 60 years ago—"Memorials of Captain Hedley Vicars." It is the story of a devout soldier who was killed in the Crimean War, and a few extracts from its pages may be of interest to those of our readers who have dear friends at the front.

The story of the boyhood of Hedley Vicars reveals him as lighthearted and mischievous, with no sign of devoutness visible. Still he was always considerate and affectionate towards his mother and sisters. "When the boy was twelve years old, his father's dying hand was laid on his head, with the earnest prayer that he might be a good soldier of Jesus Christ, and so fight manfully under His banner as to glorify His Holy Name." That prophetic prayer was gloriously granted.

When the boy grew into a man and became a soldier he was gay and reckless, indulging in excesses which he bitterly lamented in later days. In 1854 he wrote: "You will be spared poignant remorse in after years by remembering your Creator in the days of your youth. I speak from heartfelt experience. I would give worlds, if I had them, to undo what I have done."

The sudden death of a brother officer had a very sobering effect on the gay

young soldier of twenty-three, who wrote to his mother: "With God's help, I trust I have learnt a lesson and a warning from sudden death." In 1851 his regiment was ordered to Canada, and the Falls of Niagara filled him with "sublime and awful joy." He expressed his belief that "no one could be an atheist whilst beholding the majestic power of God as displayed in the stupendous magnificence of those Falls."

He was seeking God, and soon the full light came. One day he was waiting for the return of a brother officer to his room, and idly turned the pages of a Bible which lay on the table. The words caught his eye: "The blood of Jesus Christ His Son cleanseth us from all sin." That night he chose Christ as his Commander, and next day a large Bible was bought and placed "open" on the table in his room. "It was to speak for me," he said, "before I was strong enough to speak for myself." Of course he met with ridicule and opposition; but they failed to frighten the devout soldier, who began to teach in a Sunday-school, to visit the sick, and to read and pray with other soldiers.

Here is an extract from a letter to his mother, written in Gibraltar: "I was in hopes I should have had a cabin to myself, but in this I was disappointed, having been doubled up with two cadets of the East India Company's Service. At first I was strongly inclined to avoid the reproach of the Cross, and not to make a mark of myself by kneeling down, or reading my Bible in their presence. But God gave me grace to overcome this. Still it shows me what a coward I am, that I should, even for an instant, be tempted to hide my colors, and ashamed to confess Christ."

The following is an extract from a letter to a sister:

"Be assured you will feel far happier in this world even, by making religion your chief business and study, than by all the pleasures and gaities which your young heart may now probably be longing after. I tell you candidly and seriously that I would willingly part with every earthly pleasure for life, for one hour's communion with Jesus every day."

Soon we find the good soldier of Christ in the midst of a plague of cholera and malignant fever, which deprived his regiment of more than a hundred of its finest men in a month. Hedley Vicars visited the hospitals regularly, reading and praying with the sick and dying. He also read the funeral service on many occasions. In one letter he says: "I had intended speaking a few words to my men over the open graves of their dead messmates; but it was as much as I could do to get through the service; and as soon as I began to speak to them afterwards, I could not for the life of me help crying like a child. The men cried and sobbed around me. It was of no use to try to



German Prisoners Captured in Neuve Chapelle Being Brought into Aldershot, England.
Underwood & Underwood.

go on, so I ordered them to 'fall in,' and we went mournfully back to the barracks."

Here is another extract from a letter: "Death is dreaded as a fearful thing to go through; but I think, with Jesus very near me, I could welcome it to-morrow. The prospect of meeting in a few hours that glorious Saviour, Whose love we can never conceive here in all its magnitude, makes me long to depart and be with Christ."

In the terrible winter before Sebastopol "the selfish became more tenaciously selfish than before, whilst those who were capable of rising to the heights of self-denial, lived a life of daily heroism. . . . Hedley Vicars ranked amongst the last." Others have told how he slept on a bed made of stones and leaves. When it was possible to erect a few tents he gave up his to the privates, and "continued to rough it in the open air, considering himself more hardy than many of them."

From another letter—"This afternoon, whilst speaking to our poor fellows in the cholera hospital, who were lying cold and comfortless on the bare ground, rays of sunshine seemed to illumine that charnal tent as I brought the crucified Saviour before those men, for tears glistened in many an eye, and the smile of hope and peace was on many a lip. . . . It is sweet to be the bearer to them of glad tidings of joy and peace: . . . and to see some of them gently falling asleep murmuring the life-restoring Name of JESUS. I have seen these, and I cannot find words to tell the delight of hope which has filled my breast." "We are expecting every day to meet the enemy in open field or to storm the fortress. I wish they could go at it at once. Be not anxious about me. I am safe in the arms of my Saviour—I feel it, I know it—in life or in death."

The "day of humiliation" was solemnly kept by the young captain as a day of fasting and prayer. His last written words spoke of spending that evening with a friend, in prayer and Bible-reading. "We . . . exchanged our thoughts about JESUS," he wrote. That loved Name was the last word he penned.

Here is part of a letter from an officer describing the "end"—which was really the beginning: "When the enemy was close enough, Vicars shouted, 'Now, 97th, on your pins, and charge!' They poured in a volley, charged, and drove the Russians quite out of the trench. Vicars himself struck down two Russians, and was in the act of cutting down a third with his sword, when another man, who was quite close (for the coat was single) fired. The ball entered his uplifted right arm, close to where it joins the shoulder, and he fell . . . must have bled to death in a few minutes. Thus his end was as peaceful and painless as a soldier's death could be; and nothing could have been more noble, devoted, and glorious than his conduct in this, his first and last engagement. . . . He was universally beloved; and none can doubt who knew him that he is now in the presence of that great and holy God Whom on earth he deeply loved, and earnestly and successfully sought to serve."

Another friend wrote: "Such a death became such a life, and such a soldier. The most gallant, the most cheerful, the happiest, the most universally respected officer, and the most consistent Christian soldier, has been taken from us by that bullet; and I know not how to live without him." The book contains many extracts of a similar nature, showing that the good soldier of Christ had won the love and respect of all who knew him. Many who disbelieved were won to his Master by his shining life. One private said: "I wept for his loss, but now I envy him his glory."

The last spoken words of Hedley Vicars were: "This way, 97th." He had found "The Way, the Truth, and the Life," and is still calling his comrades to follow JESUS, "The Way."

HOPE.

The everyday cares and duties, which men call drudgery, are the weights and counterpoises of the clock of time, giving its pendulum a true vibration, and its hands a regular motion; and when they cease to hang upon the wheels the pendulum no longer swings, the hands no longer move, and the clock stands still."

—Longfellow.

Fashion Dept.

HOW TO ORDER PATTERNS.

Order by number, giving age or measurement, as required, and allowing at least ten days to receive pattern. Also state in which issue pattern appeared. Price ten cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, twenty cents must be sent. Address Fashion Department, "The Farmer's Advocate and Home Magazine," London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

When ordering, please use this form:

Send the following pattern to:

Name

Post Office.....

County

Province

Number of pattern.....

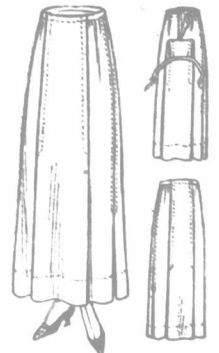
Age (if child or misses' pattern).....

Measurement—Waist, Bust,

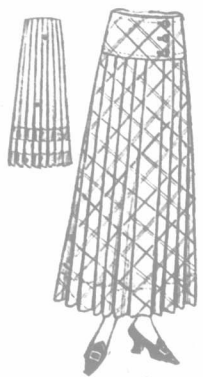
Date of issue in which pattern appeared.



8659 Coat with Bell Sleeves 34 to 42 bust.



8542 Six-Piece Maternity Skirt, 24 or 25, 29 or 30, 32 or 34 waist.



8614 Two or Three-Piece Skirt, 24 to 32 waist.



8604 Three-Piece Skirt, 24 to 34 waist.



8663 Boy's Suit, 4 to 8 years.



8664 Box Plaited Skirt, 24 to 30 waist.

tives of the Associations present at the meeting:

Clydesdale	\$1,200
Thoroughbred	300
Pony	50
Percheron	800
Hackney	200
Standardbreds.....	300
Shire	80

The Dufferin Park Driving Club, Toronto, has offered to give a matinee, the receipts from which to be devoted to this object. The Committee would like to raise the balance of the amount required from Canadian Horse Societies, and other interested organizations, such as Racing and Driving Clubs. The ambulance and equipment will be presented in the name of the Horse Breeders' Societies and kindred associations, and will be strictly Canadian, and must not be confounded with the British Blue Cross Ambulance organization.

H. M. ROBINSON.

Will You Save Soldiers by Donations for Sand Bags?

The following letter received by Mrs. Kilgour from her sister, Miss Grand, who is engaged in work for the soldiers at Folkestone, England, makes an appeal to which surely every one of us should respond:

As we explained here a few weeks ago, when we made a plea for sand-bags in response to Miss Grand's cable, the bags are used to protect the soldiers from the bullets after the men have left the trenches and are advancing in the open. Carrying these bags with them, they drop them and take shelter behind them. We can all help so easily to save our men from German bullets.

Here is the letter: "I cabled to you this morning asking if you could collect some funds for sand-bags. We want millions for our dear soldiers. So much depends upon the next six weeks. We are working at them night and day, and need money."

"Will you have the appeal put in the Toronto papers at once? We must send all we can, and every one has to be made by hand. Do try to get the appeal in quickly, and cable funds. Surely all the Concerts that have been given in Toronto could spare us some money."

"It is no use Toronto people making them as they take too long to get here, and the great battle may be fought in the meantime. One sand-bag may save a precious life. Do ask everyone to help in the great cause."

The accompanying extract from a letter from Mr. Hugh Brewer, of the 24th Battalion (Royal Montreal Regiment), speaks of the use of these sand-bags:

"General Alderson also addressed all ranks, thanking the men for the splendid work they had done, and their splendid behavior under fire. He said that the commanders of the two British brigades which relieved the Canadians, had gone out of their way to tell him that they had never been in such well-cared-for trenches. 'Perhaps you are not aware of it,' said the General, 'but it's a fact that the divisions used more than 15,000 sand-bags during their occupation of the trenches.' The work which the Canadians did in strengthening parapets, constructing dug-outs, etc., has come in for the highest praise from experienced British soldiers."

The following extract from a letter written by Capt. Agar Adamson to Mrs. Adamson before he was wounded, would make all doubts vanish. Capt. Adamson says: "We cannot get more than three hundred sand-bags a company, or one thousand a regiment per day, which handicaps us very much, as we could use one thousand a day per company."

Contributions for bags should be sent either to Mrs. Russell Hale, 307 Russell Hill Road, or to Joseph Kilgour, 21 Wellington St. West, Toronto.

A sand-bag may not sound very romantic, but if it saves a Canadian's life, could we ask more? And they need thousands.

Buttons—"Get up! Get up! The hotel's afire!"

Scottish Gentleman—"Richt, laddie; but if I do mind ye, I'll no pay for the bed."

The Dollar Chain

A fund maintained by readers of "The Farmer's Advocate and Home Magazine" for (1) Belgian Relief; (2) Soldiers' Comforts; (3) Red Cross Supplies.

Contributions from June 11th to June 18th.

Over \$1.00 each:—"Kintorians," Kintore, Ont., \$2.00; William Ball, Alliston, Ont., \$1.25; Mrs. W. Simson, Gorrie, Ont., \$2.00; "Toronto," \$2.00; H. W. Palmer, Shetland, Ont., \$6.00; R. E. Hodgson, Martigny, Que., \$5.00.

Contributions of \$1.00 each:—"A Friend," Kerwood, Ont.; "A Friend of The Advocate," Wilton Grove, Ont.; C. E. Bonnycastle, Campbellford, Ont.; Wm. Lindsay, Muskoka, Ont.; Chas. N. Walton, Minesing, Ont.; David Gemmell, Seaforth, Ont.; Mrs. Louis Danard, Kemble, Ont.; Brock Shore, Clarksburg, Ont.; Brookfield Shannon, Callander, Ont.; "A Friend," Vittoria, Ont.; Sara L. Simson, Gorrie, Ont.; "A Reader," Alexandra postmark; Mrs. Geo. A. Godfrey, North Wiltshire, P. E. I.; Jas. E. Ruthven, Alliston, Ont.

Amount previously acknowledged from Jan. 30th, to June 11th...\$1,422.25

Total to June 18th.....\$1,454.50

Kindly address contributions to "The Farmer's Advocate and Home Magazine," London, Ont.

Horsemen Contribute.

On May 15th last, representatives of various Horse Breeders' Associations in Canada met in Toronto and decided to contribute a Blue Cross Ambulance to the Canadian Militia, for use of the Veterinary corps at the front. Such an outfit will consist of: One horse ambulance, one transport wagon, four heavy horses to haul the ambulance and wagon, sixteen light horses for the use of the men in catching loose horses and in killing horses too badly wounded to recover, saddles, blankets, and a supply of veterinary medicines. It is estimated that all the above will cost, approximately, \$6,000. At a later meeting of the Executive Committee, appointed by the above representatives, the Secretary was asked to write the different Associations setting forth the objects of the movement and asking the co-operation financially, and in other ways, of each society, in helping the cause. The amounts given were suggested by the representa-

Dear Be here, and are planni next few find time and if so holiday pe Perhaps ers," on it weeks in t more.

In the fl to go far of camping will supply will soon never four very own sit up sor at midnig noises, an out at t they touch

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Be sure t a sunny pl may be hu shine will pure and made in t laid one of a house. placed, pu top, then

If there cloth curt way of the Your eat covered bo the tent. near, as t camping-gr lower poo kept for that needs not turned and kept c keep the b place.

There wil

The Beaver Circle

OUR SENIOR BEAVERS.

[For all pupils from Senior Third to Continuation Classes, inclusive.]

Camping.

Dear Beavers,—Holidays will soon be here, and I suppose that most of you are planning for great times during the next few weeks. Perhaps you may even find time for a week or so of camping, and if so I am sure the very happiest holiday possible is waiting for you.

Perhaps I can give you a few "pointers" on it, for I have spent many happy weeks in tents, and expect to spend many more.

In the first place you don't really need to go far from home to find all the joys of camping. Your own "bush" or orchard will supply all the change you need, as you will soon learn if you try it. Have you never found out how "strange" your very own woods may be?—If not, just sit up somewhere in the midst of them, at midnight, and listen to the strange noises, and little night calls, and look out at the big shadows, black where they touch the borders of the moonlight.

If you have a canvas tent you are very lucky, as it is the very best thing for camping. In it, in wet weather, you can be perfectly dry, so long as you do not touch the canvas anywhere. If you forget and chance to do that, even with your finger, in will come the rain in a little river.

If you haven't a canvas tent, however, you can build a very nice wigwam, Indian fashion with poles tied together at the top and the whole covered with branches. Of course, if it rains the branches will not be of a great deal of use, unless you have boards too, and you will have to run for somebody's house or barn.

It is best to pitch the tent close to a pebbly spot on the bank of a stream if possible, as the pebbles form a good place for building the fire for cooking, leaving no danger of setting the woods afire. Unless you have such a place, you will have to pour plenty of water on the fire after each using, as, if the ground happens to be very dry the flames may work under the dry leaves and, perhaps, burn up your tent and cause other damage.

A pot may be boiled by setting it on three large stones with fire beneath; but a better way is to build a sort of stove with stones. Bank them up in two rows about three or four feet long and close one end. Put an old piece of tin or zinc on top, and an old stovepipe at the closed end, and you will find that you have a very good fire-place over which several things may be cooked at once. You must always be very careful, when working about a camp-fire, that sparks do not catch in your clothes.

Having fixed your fire-place, very little other "furniture" will be necessary. The ground will do very well for a table, although, if you are handy, you may be able, with the help of a few boards and nails, to put up a table between two trees, with seats fixed to blocks of wood on each side.

Be sure to put up a pole somewhere in a sunny place over which the bed-clothes may be hung during the day. The sunshine will help to keep them sweet and pure and dry. The bed itself should be made in the tent, of piles of branches laid one over the other like shingles on a house. When the branches are all placed, put dry grass or hay over the top, then put on your blankets.

If there are mosquitoes, keep a cheesecloth curtain hanging across the doorway of the tent.

Your eatables may be kept in closely-covered boxes in a shaded place outside the tent. If there is a cool spring near, as there should be in every ideal camping-ground, widen it out to form a lower pool in which one box may be kept for the butter and anything else that needs to be cool. A large flower-pot turned upside down over the butter, and kept covered with a wet cloth, will keep the butter firm if there is no better place.

There will be plenty to do to keep you

amused, especially if you camp beside a creek. You can fish, pick raspberries for tea, make bows and arrows to shoot at a mark with, build dams in the creek, —and don't forget to take a bird book and a flower book with you if you can possibly get them.

Last of all, perhaps you can coax father or mother, or an older brother, to stay with you at nights. Of course you're not afraid. Oh, no!—But then it's better to have an older person about at nights when one is camping.

PUCK.

Funnies.

Olive, aged four years, went for a walk with her father one June morning. Hearing a bird singing by the roadside, she stopped to admire his beautiful black-and-white coat.

"Oh, Papa," she exclaimed, "see this bobolink!"

"How do you know it's a bobolink?" asked her father.

"'Cause I 'stinctly heard it bobble," was the reply.—N. R. M.

THE BEST FIRM.

A pretty good firm is Watch & Waite, And another is Attit, Early & Layte; And still another is Doo & Dairet; But the best is probably Grinn & Barrett. —Walter G. Doty.

Senior Beavers' Letter Box.

Dear Circle and Puck,—Once again I am writing to you. I am a very interested reader of your paper, Puck, and always look forward to the time when "The Advocate" comes. Please Puck, I have come to you with the same question as many other Beavers. May I join your Garden Competition? I hope that your rules do not object to having me. What kind of flowers and vegetables must I plant? I promise you, I shall not give up like some of the Beavers did last year.

I am very fond of reading. Indeed, mother says that I read too much. I am quite a book-worm I know, but I simply love reading. I have read about 112 books, and nearly all these three or four times over. I cannot understand a book clearly enough if I only read it once. I am afraid of sending you a list of the books I have read, because it would take too much room.

Some time ago a Beaver from Owen Sound sent me a post-card on which she said she thought that I was quite a Canadian Beaver. Wasn't that a compliment? I always wished I could live in Canada, and I may some day.

This is my third letter to you. I did not see my second one in print. Have you any Scout or Cadet Leagues in Canada? I am president of our Private Scout League. We have fifteen English members, one Belgian, and two Canadians. We are very proud of the two latter, and would like to get more.

Say, Puck, do feed that dreadful w-p. b. of yours before this letter comes. I've had quite a dread of that thing since I first wrote to the Circle. Now, my letter is getting too long, so I will not take any more time and space. Good-bye, from your English Beaver.

P. S.—Will the Beaver at Owen Sound write to me again and tell me her name and address?

LUCY HARWOOD (age 12, Form IV).
Lee's Rest, Charlbury, Oxford, England.

Of course you may enter our Garden Competition, Lucy. It will be interesting to us all to know that one of our gardens is in England. I sent you a copy of our March 11th paper, with all directions about the competition in it. Did you get it all right?

Yes, we have both Scouts and Cadets in Canada, Lucy, so you will feel quite at home if you come over.

Dear Puck and Beavers,—This is my first letter to your Circle. I have one sister; she is in the Second Book. For pets I have a dog named Rover; three cats named Toney, Jim and Reuben; one black squirrel, and one bantam with five chicks. I have a 22-calibre rifle, and was away hunting and got a rabbit. My father takes "The Farmer's Advocate," and we like it very much. As this is my first letter I would like to

see it in print, and hope it escapes the w-p. b.

WALTER MANHARD (age 13).
Fairfield East, Ont.

Dear Puck and Beavers,—This is my third letter to your charming Circle. I have two brothers and three sisters. I am the eldest. I am in the Senior Third Class at school. The school is near my home. I can go there in five minutes. I got the highest marks in our exams. at Easter. I am a book-worm, and have read a great many books. I have quite a few of my own, and there is a library both at my day school and Sunday school. I have written a lot of stories. Perhaps some day I will send one to your Circle if I see this letter in print. I guess I will close now and leave room for the rest of the Beavers. I hope the w-p. b. isn't hungry when my letter reaches you.

ISABEL STEWART (age 12).
Morriston, Ont.

Junior Beavers' Letter Box.

[For all pupils from the First Book to Junior Third, inclusive.]

Dear Puck and Beavers,—This is my first letter to your Circle. I would like to become a member. I live on a hundred-and-twenty-acre farm and am about one mile from school. My teacher's name is Miss Cecellia Gregg; I like her very well. For pets I have a Holstein bull calf; he is about two months old. He is full of fun and play. He sometimes takes a romp about the stable. I care for and feed him myself. My school took part in the school fair, and I am taking mangels and corn. I am in the Junior Second Book, and am nine years old. We have twelve pure-bred Holstein cows, and ten calves this year. I will close my letter with a riddle.

What is it that goes up and down and never touches the ground or the sky?
Ans.—The handle of a pump.

There was a ship that was full of people and there was not a single one on it?
Ans.—They were all married.

I hope this will escape the w-p. b.
FARQUHAR McRAE.
Brainsville, Ont.

Dear Puck and Beavers,—This is my first letter to the Beaver Circle. My father has taken "The Farmer's Advocate" as long as I can remember, and we like it fine. I am ten years old, and live on a farm of 100 acres. I go to school every day, and am in the Senior Second Book. We live about half a mile from the school. I have read quite a few books. Some of them are: "Mrs. Wiggs of the Cabbage Patch," "The Crown of Success," "The Little Korean Cousin," "The Little Chinese Cousin," "The First Book of Birds," and quite a few others. For pets I have a nice Collie dog; we call him Bingow; two cats named Rosy and Blackie; also a pair of bantams. As my letter is getting long I will close with a few riddles.

Why is it very easy to break into an old man's house?
Ans.—Because his gait (gate) is broken and his locks are few.

Which of the English kings has most reason to complain of his washerwoman?
Ans.—King John when he lost his baggage in the Wash.

What has a head and never sleeps, has a mouth and never eats, and always keeps a moving?
Ans.—A river.
HAZEL McCALLUM (age 10, Sr. II).
Martintown, Ont.

Dear Puck and Beavers,—This is my first letter to your Circle. We have taken "The Farmer's Advocate" for a long time, and like it fine. I am eight years old, and I go to school every day, except just now I have the mumps and can't go. My teacher's name is Miss Dawson, and we like her fine. I have one brother and one sister. They go to school also. They are in the Third Class; I am in the Second. Hoping this letter will escape the w-p. b. and appear in print.

ARTHUR GRIEVE.
R. R. No. 1, Wilton Grove, Ont.

Dear Puck and Beavers,—This is my

first letter to your Circle. My father has taken "The Farmer's Advocate" for a good many years, and we like it fine. We left off another paper to take it. For pets I have a dog named Collie. We have five bantams, and a lamb named Mary. I have seen some other Beavers writing about their school fair, so I thought I would tell you about ours. I took potatoes. It was held in Sparta. Some men put up the tent, and children brought in stuff and soon the tent was full. Then the judging began. The races were going on outside when the judging began. They had tug of war and other games, too. They were selling candy in the school, and had lunch. I got fifth prize for potatoes. We came home then. I think I will close with a riddle.

High as the westle; weak at the castle, but all the king's horses can't pull it down. Ans.—Smoke.

FRANCIS OLDE (age 10).
Union, Ont.
What is the "westle," Francis?

The Ingle Nook.

[Rules for correspondence in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on. (4) Allow one month in this Department for answers to questions to appear.]

Dear Nookers,—Have you ever in your life met people who by sheer reason of their goodness, or pluck, or perseverance, or some other admirable quality, make you positively ashamed of yourself? It's not pleasant to feel ashamed of oneself, and yet it is tonic to meet such people, or to hear of them, and we shouldn't rebel much against anything that is tonic, should we?

Three instances of the kind have come to me during the past week, and I pass them on to you,—you see I like to share my "tonics." The first may shock some people very much.

The other day I called on a very sweet, young woman, and in course of conversation she said:

"I have lost a very dear friend from the city, lately. She was my washwoman, but the very dearest thing you ever saw! I always felt like a great, big, awful sinner when I talked to her. If you only knew how sweet and wonderful she was, and how much good she did according to her means!—oh, she was enough to make all the rest of us feel so ashamed!"

"Why did she leave?" I asked.
"Oh, her husband is a Salvation Army man, and he went to take charge of the Army in P.—. He gets very little money, you know, and so his wife helps by washing. They're very much alike. If they had but one loaf they'd share it, and, often, they do.—I wish you could have seen her. Such a sweet face! And such kindly manners! I feel that I've lost a real friend. I've had two letters from her, though, and she seems to be happy where she is."

Evidently this washwoman is a "big" woman, a queen so far as her sphere extends. . . . Incidentally, too, don't you think my friend a "big" woman?—It often requires bigness of soul to recognize bigness of soul.

The second wonderful character of whom I wish to tell you lives in this city. She is a woman of rare intelligence, but is almost blind. In spite of that fact she does all of her own housework—and the dinners she prepares are said to be par excellence.—Think of it!—Doing housework of all kinds when one can see so little that one has to go about with both hands extended to keep one from running into things!—When one has to hold one's hand over the gas after lighting it, to see if has caught!—And the marvel of it all is this woman's cheerfulness. Those who know her best say that she is unfailingly bright and interesting, never given to "blues," ready at all times to enjoy anything that comes along, from a chat with a friend to an automobile ride.

Surely we who have all our faculties should strive to attain some such cour-

age, some such resolution not to be ready to be thrown down and out by adverse circumstances.—An inspiration, this woman, truly, and an example.

The third story is of a different order. —I do not know whether any of you have ever seen Maeterlinck's wonderful little drama, "The Bluebird." A year ago, when there was no war and the arts could flourish, it was put on in the Grand Opera House here, and everyone in the city who loves good dramatic art was there to see. I shall never forget the beautiful little play. In the first scene the two children Tyltyl and Mytyl are shown asleep in their mother's little cottage in the forest. A fairy comes in, and sets them off on a journey whose object is to discover a bluebird, which signifies happiness. She gives to the boy, Tyltyl, a diamond which when it is turned enables the little tots to see the "souls" of things; then she disappears.

At once everything becomes visualized. The hours troop from the clock and dance; fire, water, bread, sugar and milk take form and talk; the dog and the cat also talk.—And so the children move on from scene to scene, seeing into the heart of things; once with much fear and trembling, they enter a cemetery at midnight, and little Mytyl cries, for the graves are to be opened. But when the awful moment comes naught but flowers is to be seen, and Tyltyl cries, in amazement and delight, "Why, there is no Death!"

In a far-off land they look upon little children waiting to be born. In another they meet with grandparents who have long since died. In a Palace of Night they catch glimpses of the catastrophes that threaten human life,—war, pestilence, even "Cold-in-the-Head" who comes forth sneezing and has to be thrust back lest she cause an epidemic. Last of all they meet the Great Joys and Sorrows of life, personified.—And finally they discover the Bluebird.—Where?—Why in their very own little cabin in the forest, with the simple homely parents who love them.

It was all very beautiful.

—And now?—Hidden away in the breast of one of the actresses was a story that did not appear above the footlights, but which I may now tell to you.

I'd like to tell you the name of the actress, but perhaps it would not be fair. At all events, this bright woman, some years ago was left a widow with two little children, very little means, and only one talent—she could "act." She determined to make use of that talent, for not only had bread to be won but the children must be educated. Thus it was that she appeared above the footlights.—The hard part came in this: that both her own people and her husband's were so incensed at the idea of her taking up stage-life that they ostracized her, threw her off completely. Perhaps no one except those who have been so treated can realize the loneliness and pity of that. It was a great and terrible problem for the lone little widow. But what was to be done? She had one talent and knew it. Should she conform to the conventionalities and scrape along in poverty, or should she make use of her gift and develop it? The more she pondered the question the more she realized that great gifts are not bestowed for nothing. With them they carry responsibility. "The Bluebird" was a good play with a good moral, a beautiful thing, an impressive sermon on the stage. Maeterlinck was a teacher, a great teacher and a great artist.—She decided to stay with "The Bluebird." And so she makes a living well, and her children are being given their chance in life.

Who, having seen that wonderful play, and understanding its lesson, can do other than admire the courage and persistence of—there I very nearly told you her name.

I am sure that many of you have stories equal to these of the goodness or courage of women, would you but take time to write them. JUNIA.

A Letter From The Front.

[I have received recently a letter from a nurse at the front, which is so interesting that I must pass part of it on to you. It gives, perhaps, a more intimate picture of the spot from which it has come than if it had been written especially for the press, and I know the writer will not mind my letting you have the benefit of her very graphic descriptions.—Junia.]

No. 4, General Hospital.

"Well, here we are in France, and it is surely 'Sunny France' these days. I do wish I could tell you where I am, but I cannot. But it is one of the old historic spots, and every day I wish you were here. I started out to keep a diary, but after the first day on duty here I found I was so weary at night that my brain would not work at all. However, I will be able to remember heaps and tell you all about it when I reach home.

"The building we are nursing in is called (I can't tell you) Palace. It is quite immense and wonderfully equipped, especially when you know what the building really was before. The work is intensely interesting, and I am enjoying it immensely—even if I am on night duty. The English nursing sisters are so nice.

"This is a beautiful building, and the grounds are so nice; there are so many flowering shrubs and a number the same as we have at home,—the wistaria, the old-fashioned honeysuckle, and others. There is also a chestnut with a very pink blossom, and a pink-flowered hawthorne; and this morning I heard a dear little golden oriole piping away. There is a huge bunch of peonies near the entrance. They are much the same as ours only larger, more shaggy, and the petals are longer.

"A short distance from here there is an old castle. I have not visited it yet, but sister Walker was there yesterday, and she says it is the most beautiful spot she ever looked at in all her life, so we are going to walk down some day soon, and then I will write and tell you about it.

"There are trees, and trees, and trees all around the palace, and everything is so beautiful and peaceful it is really hard to believe that a terrific war is taking place.

"I can tell you these men are heroes. Scarcely a gloomy face is to be found anywhere, and not a word of complaint to be heard no matter how greatly they are suffering. All day long you can hear them laughing and talking. Tonight in the tents on the lawn they were singing, and such nice voices! One boy told me that even in the trenches they sing a great deal.

"One of the Sisters was telling us about an Irishman on her floor. He thought he had a pain over his heart. When the medical officer asked him where it was he showed him a spot up near his neck. The doctor told him his heart was not up there. Later he said to the Sister, 'Shure things had come to a pretty pass when a fellow didn't know where his own heart was.'

"There is the dearest youngster, about 17 years of age, from Dublin, on this floor. He just lies there and smiles and smiles. He says this is heaven enough for him.

"Say, am I glad I came? Well, I just guess I am!—And am I glad I am a Canadian? I guess yes!—Not because I have any dislike to the English people for they are splendid; but you should hear the different men talk about the Canadians,—words of praise everywhere. They have been wonderful in their bravery,—though no doubt you people over home know as much about that part of the fight as we do,—in fact more. We have seen no Canadian papers and have no idea how many from around home are gone.

"We had such a nice little trip through France on the funny little coaches, and the engine with the queer little whistle. Sister Seeler says it just sounds as if something were pinching it. There are coaches which hold four and six people, all nicely cushioned, with the queerest little "tidies" where the head rests. On our way through we passed a train-load of men from Belgium. They called over and asked us if we were English. When we said, "No, Can-

adians," you should have heard them. "Canadians!" with a smile on every face, and we got such a nice salute from every man who could possibly find room to poke his head out of a window. Now believe me, we take off our hats to a Belgian soldier any day.

"When I was fixing the little Irish boy up this morning he offered to sing me a song, and I can tell you he gave me some surprise when I heard his voice. It is splendid. He has lost a leg and has several other wounds, and with them all he says he would like to go back and see the finish. That is what I call bravery,—and he is only a kiddie."

[This ends all I can give you of the nurse's letter.—But I just want to remind you that these suffering, cheerful men are being helped by your money sent through the Dollar Chain. They are giving so much—so much! Aren't you glad that you are helping them, if ever so little?—Junia.]

CLEANING COAT.—BAKED OMELET.

Dear Junia,—Having received many useful hints, recipes, etc., through reading the Ingle Nooker's columns in "The Farmer's Advocate," like many others am coming for help.

Can anyone tell me how to dry-clean a child's white-bear-cloth coat, the cloth is curled, and I know by simply washing in the ordinary way they never look so well? I also enclose my best baked omelet recipe, as eggs seem to be plentiful as well as cheap.

Baked Omelet.—Six eggs, 1 cup hot milk, 3 tablespoons cold milk, 1 tablespoon cornstarch, 1 tablespoon butter, 1 teaspoon salt.

Method.—Beat yolks of eggs and salt until creamy; boil milk slowly. Then stir in cornstarch, previously mixed in cold milk; add butter, beat until well blended. Stir this into yolks of eggs, and lightly fold in whites which have been beaten very stiff, pour into buttered pan and bake in slow oven for twenty-five minutes.

Argenteuil Co., Que. OLIVIAH.

Wash the coat in gasoline, taking care to do the work out of doors and away from fires or lights in order to prevent any possibility of explosion. Hang the coat on the line until dry. Gasoline should be kept tightly closed when not in use to prevent evaporation. If not too much soiled the coat may be cleaned by rubbing into it a mixture of flour and cornmeal or starch and borax. Roll up and leave for a few hours, then shake and brush well.

Hot Weather Cookery.

Easy Salad.—Cut lettuce leaves into shreds with scissors and arrange on individual plates. On each bed of lettuce arrange either sliced hard-boiled egg or tomatoes to form a daisy. Put a little ball of cream cheese in the centre and serve the salad dressing in a pitcher.

Strawberry Shortcake.—Sift together 2 cups flour, 2 teaspoons cream of tartar, 1 teaspoon soda and a pinch of salt together. Work in 1-3 cup lard and mix with sweet milk or water to a stiff dough. Divide into halves and roll out to fit tin. Spread butter over one, lay the other on top and bake twenty minutes. Hull and wash and mash the strawberries and sweeten to taste. Separate the two cakes, butter, and place the berries between and on top. Let stand an hour before serving.

Another.—Cream together 1 tablespoon butter and 2-3 cup sugar, then add a well-beaten egg mixed with ½ cup milk. Stir 1 teaspoon cream of tartar and ½ teaspoon of soda in enough flour to make a batter like jelly cake, then beat all together. Bake in two tins, put berries between as above, with whipped cream on top of all. Decorate with a few whole berries.

Rice Pudding.—Wash ½ cup rice and add to it 1 quart rich milk, ½ cup sugar, 1 tablespoon butter, pinch salt, dash of grated nutmeg and ½ cup seedless raisins. Put all in a pudding dish and bring to a boil over boiling water. Add 1 teaspoon vanilla, and put in the fireless cooker. Leave 3½ hours. Serve hot.

Salmon Croquettes With Peas.—Break up 2 cups canned salmon, and season with salt and mustard. Cook 1 table-

spoon butter and 2 tablespoons flour together and add to 1 cup hot milk, boiling until all is thick and creamy. Add to the salmon and set away to cool. Add more seasoning if necessary. Heat 1 cup cooked peas with 1 tablespoon butter mixed with one of flour and 3 tablespoons cream. When the salmon mixture is cold and firm mould it into round, flat cakes. Put a spoonful of peas in the center of the cake, cover with another salmon cake, press into a ball, egg and crumb, then fry in deep, hot fat.

Coffee Bread.—Add 1-3 of a cup of butter, ½ cup sugar and ½ teaspoon salt to 1 cup scalded milk. When the mixture is lukewarm add 1-3 of a yeast cake softened in ½ cup lukewarm milk, 1 egg well beaten, ½ cup raisins stoned and cut in pieces, and enough flour to make a stiff batter. Cover and let rise over night. In the morning cut down with a knife and spread in a buttered pan to ¼ inch in thickness. Cover and again let rise. Brush over with beaten egg, and cover with the following mixture: Melt 3 tablespoons butter, add 1-3 cup sugar and 1 teaspoon cinnamon. When the sugar is partially melted add 3 tablespoons flour. Bake as usual.

Fruits and Vegetables.

Fruits for canning should always be firm, fresh and not over-ripe. The amount of sugar usually allowed is one-third the weight of the fruit in sugar, and 2½ to 3 cups of water to each pound of sugar. Whether for canning fruits or vegetables it is very necessary that the jars be very thoroughly sterilized. To do this wash them well and fill with cold water; place in a boiler and surround with cold water. Heat and let boil for 15 or 20 minutes, and fill while hot. Tops and rims should be boiled also, and rubber bands dipped in hot water before adjusting. Always new rubbers should be used.

The sealers whose tops snap down are better than the old-fashioned kind.

One way of canning fruit is to make a thin syrup of the sugar and water, cook a small quantity of fruit at a time in the syrup and pack in the jars. Finally fill to overflowing with the syrup and screw on the tops. While filling the jars place them on a cloth wrung out of hot water to prevent breaking.

Another way is to stew fruit and sugar together, and fill the jars at once. Yet a third is to pack the fruit in the jars, fill up with syrup, and cook all in a boiler of water until done. In this case the tops must be left loose until cooking is completed to prevent breaking.

Fruit may be canned nicely with a fireless cooker. Put on the boiling syrup as above, and cook in boiling water for 5 minutes, then adjust the covers and put in the cooker, letting stand there from 3 to 6 hours. When the larger fruits are being canned the fireless radiators should be used.

All canned fruit should be kept in a cool, dark place.

MAKING JELLY.

The best jelly-bag is made in the form of a cornucopia so that the juice will drip from one corner. It should be boiled before using. The glasses also should be sterilized, and after the jelly is cold a little melted paraffin should be poured over the top of each. When making jelly of any kind be sure that the fruit is almost on the under-ripe side, as otherwise the jelly may not stiffen. Always the sugar for jelly should be heated in the oven before adding it to the juice, and the juice should be pretty well boiled down before the sugar is put in. Never pick fruit for jelly when the dew is on or immediately after a rain.

Currants are among the very best jellying fruits, and may be mixed with any kind of berries to help in the stiffening process, just as green apples may be later on. For instance red or green currants combine well with raspberries or blackberries, and under-ripe apples with grapes, thimble-berries, etc. To prepare jelly for serving with cold meat any kind of spice that is liked may be added, also a little vinegar.

Currant Jelly (Wild strawberries may be used instead of the currants).—Mash the currants, little by little, in a granite kettle, using a wooden potato-

masher. The stems of the currants need not be removed. Bring slowly to boiling point, and simmer until the currants look white. Strain through a coarse strainer, then put the juice through a double thickness of cheese-cloth jelly-bag. Measure, bring to the boiling point and boil 5 minutes. Add an equal measure of heated sugar; again bring to boiling point and let boil 3 minutes. Skim and pour into glasses, then let stand in the sun, covered with white mosquito netting to keep off the flies, for 24 hours. Put on covers and keep in a cool, dry place.

Canned Cherries.—To remove the "choking" quality of cherries first cook in a very little water and strain off to make bottled fruit juice. Pour a thin syrup over the cherries and proceed as usual.

CANNING VEGETABLES.

For canning vegetables the snap-sealers should be used, and should be very thoroughly sterilized. Pack the cooked vegetables (some put them in raw) into the sealers, next pour in cold water until bubbles come to the top, cover loosely and cook in a boiler of water, boiling steadily but not madly for several hours. Next snap down the covers and leave over night. On the next day and the third day also repeat the process, loosening the covers each time so that the jars will not break. Finally snap down tight and keep in a cool place.

Asparagus, corn, green beans, green peas, very young beets and carrots, and squash may be canned in this way; also "greens" of any kind, such as spinach, lamb's quarter, beet tops, etc. Add whatever salt is necessary when re-heating before serving, also pepper and butter.

The Scrap Bag.

WASHING COLORED EMBROIDERIES.

To bleach white embroidered articles without bleaching the colored embroidery also is a problem. The best way is to wash them with a mild, white soap, then put them to dry in an old pillow-case which has been dipped in very strong bluing water and thoroughly dried. Leave in the light for several days.

USE FOR OLD RUBBER BAGS.

Old hot-water bags split open and cut into circular pieces make excellent mats for house-plants

HANDY DUST PROTECTORS.

Strong window-shades, rollers and all, make very good doors for pantry shelves or other places where doors have not been added. Attach a strong ring to the lower edge to run the shade up or down as needed.

KEEPING ROBINS OFF.

Hang a few tiny bells on the tips of the slender branches of the cherry tree. They will help to frighten the robins away, so it is said.

PANAMA HATS.

To prevent destructive hat-pin holes from being worn into Panama hats get your shoemaker to put two white eyelets, such as are used on white shoes, in the proper places.

SHORT-STEMMED FLOWERS.

Cover an embroidery-hoop with mosquito netting, place it in a low, flat dish, add the water and arrange the stems of the pansies or other flowers through the meshes of the net.

TYING ROSE BUSHES.

Raffia is better than cord for tying rose bushes to a support, as it is not so likely to injure the canes.

A SICK-ROOM DEVICE.

If the ticking of a watch in a sick-room annoys a patient place it under a tumbler, and the noise will be almost inaudible.

PARAFFIN PAPER USES.

The possibilities of paraffin paper as

material for holding foods are not generally recognized. It is particularly recommended for foods that have strong odors. Perfectly good but "smelly" edibles may contaminate the entire contents of a refrigerator. If such foods are wrapped in the waxed paper an outer covering of heavy white paper is desirable. Paraffin paper may also be used as an airtight covering for bowls and be held in place by elastic bands.

A GOOD MOTOR VEIL.

Choose a veil that is rather wide and has a 2-inch hem. Find the center of the hem, and for 11 inches each side of center turn up the hem and stitch, making it 1 inch wide. Run through this a piece of silk elastic long enough to go around the neck loosely. Put a loop at one end and a button at the other, and button at the back of the neck.

The Windrow.

William Waldorf Astor has opened a subscription list for the Red Cross with a donation of \$100,000.

Robert W. Service, the Canadian poet and novelist, author of "Songs of a Sourdough," etc., is serving the Allies in France as an army chauffeur. He enlisted in Paris.

In Montgomery, Ala., three barrels of flies are caught daily in sixty large traps placed upon the streets by the Sanitary and Health Department. It is to be hoped that the Department is also seeing to the removal of all manure and other filth that afford a breeding place for the flies.

Eleven huge bells are on their way from Troy, New York, by water, to Los Angeles, California, where they are to form a chime for the new million-dollar Bible Institute. They will have the two-fold distinction of being the largest bells on the Pacific coast and the first to pass through the Panama Canal.

On July 17th a conference was held in Independence Hall, Philadelphia, for the purpose of discussing the formation of a League of Peace. Mr. Taft presided at the meeting, which is looked upon as the beginning of very important developments in bringing about a scheme for universal and continuous peace when the war shall have stopped.

This month, for the first time, the University of Columbia, New York, gave its honorary degree of LL. D. to a woman. The woman, marked by the distinction, is Dr. Louise Lee Schuyler, well known for philanthropic work in New York State.

A very considerable volcanic eruption occurred recently in California, where Mt. Lassen became active, ruining many farms by the streams of mud and lava which it sent forth. Eruptions also took place from two mountains on Cook Inlet, Alaska.

Prof. Hedrick, of the University of Missouri, in an article published in the New York Evening Post, argues that the "real Germany is becoming highly suspicious of the German Government, and that she is responsible for the recent acts of which we disapprove only in that she has not yet exerted herself to alter that Government." The Government, he claims, stands in reality not so much for the Kaiser as for the whole bureaucracy of Berlin and Prussia. According to a volume published recently in Switzerland "J'Accuse von Einem Deutschen," whose author is said to be a Prussian, the war was "plotted, prepared and declared by the German military party." Of all the Powers in Europe Germany alone was preparing war, he points out, and it was for this reason that the Berlin Cabinet refused to listen to any of Great Britain's proposals for simultaneous reduction of naval construction.

WHAT IS THERE TO SAY?

Here is the suffrage case in a nutshell. It is from the pen of Mrs. Carrie Chapman Catt:

The suffrage movement has been inspired from the beginning by precisely the same motives as have forwarded similar movements among men. A desire for personal liberty in governmental matters; a feeling that an outrageous injustice is done the mothers of the race who are denied a voice in the welfare of their country; a conviction that our claim of a government of the people is a mere travesty when half are denied expression of their political desires; that governments are weak along the lines where women's instincts and inclinations are strongest; that the disfranchisement of a sex is a discrimination based upon superstition and tradition instead of reason and common-sense—these are the motives that impel women to seek the ballot.

What have those opposed to the voting of women to say to this?—The Independent.

The Red Road.

Langley stood in the door-way of his lodging-house, a look of contentment spreading over his face as he viewed the beauty of the morning.

To the north a sparkle of sunlight on rippling waves indicated the existence of Pearl Lake. To the south a gap in the pine forest marked the trail from Duluth.

Out of the gap came two Chippewa Indians, riding gaunt Leech Lake ponies. They were followed by two men driving equally gaunt ponies hitched to a buckboard. All four men headed for the place where Langley stood.

"Ha-noke-sian?" (Where are you bound?) asked Langley of the Chippewas, without changing his lounging attitude.

The older of the two looked askance at the larger of the men in the buckboard, who was just leaping over a wheel. This man stood six feet in his rough boots, and every muscle in his powerful frame seemed alive with energy as he strode toward Langley. He was talking before he covered the distance that lay between them:

"Fresh horses and guides for Quiver Lake at once. Give us breakfast, too—eggs, coffee, anything."

"Eggs ain't to be had," replied Langley, still unmoved. "Horses and guides for Quiver Lake can't be got. Breakfast'll be served in five minutes. Set down and get cool. Purty mornin', ain't it?"

A purple-red flush swept over the big man's face—his name was Bentley—and was succeeded by white, and his jaws set in a way that might have frightened any man but Langley—Langley, who had lived in the Minnesota wilds thirty years and was master at Pearl Lake.

"My friend," said Bentley, his voice unnaturally steady, "I take it you're Langley. Ponchnot of Duluth told me of you—told me you did things, would hit the trail for anything or anybody. I'm two days and a half out of Duluth, and I must be at Quiver Lake by night to-morrow. I've got to be there then. Now will you wake up?"

A quick flash of light in Langley's eyes told that he knew Ponchnot. He looked again at the glory of the dawn spread over the land, and rubbed his gnarled fingers together, before replying.

"Forest fires 'tween here and Quiver Lake," he said, slowly. "Only person likely to come through is Tom Beebe. He carries the mail. If he comes through he can get back, maybe, but it's up to him if he takes you along. Tom rides a mule. He oughter be in round about noon." Then looking reflectively over a shoulder and catching the smell of bacon, he went on, "Breakfast's ready. Come right in."

Bentley, gulping down his breakfast, left his companion, Atwood, who was his private secretary, to finish his meal at leisure. Bentley was a capitalist who had acquired the year before important timber and ore rights in the upper end of Itasca County. He had never seen the lands, but in the spring had sent to them foremen and gangs of toilers. It was important to him that he should begin to realize profits from his new investments at an early day.

He had agreed to pay his men higher

wages than were ordinarily given for the work of clearing, and the foremen had been instructed to drive them to the limit of their strength. All through March, April, May and June Bentley had promptly sent couriers—for regular mail-routes had not been opened—the money for the pay-rolls, but through a mistake in his own calculations, he had failed to forward the money in July and August. Early in September a courier had reached Duluth by way of Vermillion, to tell him that the men, shorn sixty days' pay, had seized his properties, made prisoners of the foremen, and were threatening to lynch Bentley if they could ever lay hands on him.

Bentley was neither a coward nor a dishonest man. When the news had reached him in Duluth, he had realized that he should have had the men promptly paid, for that was the only way to keep them satisfied with their lonesome, racking work. Realization of an error meant with him prompt effort to repair it. He had started at once for Quiver Lake with money enough to pay the men. Ponchnot had told him that the quickest way to reach his property would be by Pearl Lake; for this, he and Atwood had headed.

Now at Pearl Lake Langley told him that forest fires barred his way. He did not believe it. Hastening from house to house in the settlement, he tried to find men and horses to carry him north.

"If Langley can't do it, we can't," was the one reply he got. "The fires are burnin', and when Langley won't run 'em, we can't. P'r'aps Tom Beebe can help you."

The Chippewas with Bentley did not know the northern trails and would not budge. In a great rage at being balked when so near his goal, Bentley returned to Langley's, to find that worthy leisurely chewing a straw. He grabbed him roughly by a shoulder, and cried out:

"I'll give five hundred dollars to the man who'll guide me to my camps!"

Throwing off the heavy hand, Langley whirled on Bentley. He was aroused now.

"See here, Mr. Bentley," he exclaimed, "men who know me well never touch me that way! I wouldn't let you do it if I didn't think you was a little excited. I'd take you north to help you if I knew the trail to your camps, but I don't, and there's nobody here who does but Tom Beebe, him that we hire to carry the mail 'cause the government won't do it. Between here and where your men are there's miles of forest fire. The timber's been burnin' for a week. If there's any way left to get to your camps from the south, it's by what they call the 'Red Road.' I never set eyes on that road, but some Injins tell of it, and I know Tom Beebe uses it when he's hard pressed to get out of the smoke.

"You set down and be cool," Langley went on, more mildly. "If Tom Beebe's alive, he'll be in here shortly, and then you can dicker with him. Tom's a good boy, but you don't want to rile him. He won't take from you what I might. Tom's eddicated, and he isn't goin' to be a mail-carrier all his days. Set down and enjoy the scenery. It's purty here."

Bentley looked at Atwood and grimly smiled. He could master men in the big cities, but not here. For two hours he held his heels on a rail in front of Langley's, and then there rode in from the north Tom Beebe, carrier of the mail. His face was blackened and his clothes had the smell of burned wood and ash about them. Strapped to his back was a small mail-pouch. The leather surface of this was crisp and crumbly, as if it had passed through great heat. Tom himself was lean and lank, a compound of steel-like nerves, blue-gray eyes, and a smile that rarely ever left the lips.

The mule that he rode had patches of hair gone from its flanks and back, where burning twigs and blazing leaves had fallen. Even in his anxiety to do immediate business with Tom, Bentley could not take his eyes from the mule. Bentley was an admirer of blooded animals of any kind, and here in this wilderness, looking at him with eyes almost human in their expression, stood one of the handsomest mules that he had ever seen.

Standing about fifteen hands high, the animal was perfectly black in color ex-

capt for a ring of white that encircled its neck like a collar. The ears were sharply pointed, the legs straight as arrows, the feet small and set squarely on the ground. Every visible physical point was good, and moreover, the way in which the animal moved its eyes and ears indicated that it had great intelligence.

When Beebe dismounted, the mule walked away toward the stables. Bentley almost forgot his own troubles in watching the majesty of its stride.

"Rather hot comin' down, Tom?" asked Langley.

"Hot!" exclaimed Beebe, his grimy face wrinkling as he laughed. "I had four two-mile detours to make getting through. Indian Hollow's burning, and the fire's a mile high; big winds and no rain. I wouldn't have tried to make it, but I've mail for Bentley, of Duluth. His men have struck, and they're going to clean up the camps if they don't hear from him."

"This is Bentley," said Langley, laconically, nodding his head toward the capitalist.

Tom reached for his mail-pouch, but Bentley interrupted him:

"I know what's in Johnson's letter. I'm here with the money for the men. I want you to guide me to Quiver Lake just as soon as you can. I must be there to-morrow night. Name your price, and the sooner you get under way the better it will suit me."

The carrier of the mail shook his head.

"I don't believe you could make it, Mr. Bentley. I'm getting away from here as soon as I have a bit of rest. All the trails will be afire by to-morrow, and no more mail will get through until the rains come. But your riding back and my riding back are two different things. You're not up for that kind of a ride."

Bentley threw up his hands with the exclamation:

"This is the second time I've been told to-day I can't do things! I'm here to get to the camps and make things right. If you won't take me, I'm going through anyway. You boy—to tell me I can't go through!"

Langley moved a little uneasily on his feet. Tom's eyes grew perceptibly brighter.

"I'm going to eat and rest now, Mr. Bentley," he said. "Then I'm going back with the mail for the boys you haven't paid yet. If you're going through with me, there's only one animal in Pearl Lake that'll follow my mule through fire. That's Langley's gray mare. If he'll let you have her, you can follow me—but, Mr. Bentley, you can't run over me. I know what's ahead; you don't. If you go, you take your own risk."

Tom strode into the lodging-house and Langley gave an impatient look at Bentley.

"Why don't you keep cool?" he asked. "What d'ye want to rile the boy for? He's some boy, and you'll find that out if you get into the fire with him."

Bentley ignored the criticism and drove a bargain for the gray mare. He bought her outright, with the privilege of returning her in case she should survive the trip. He read Johnson's letter, which was a new appeal for money, and ordered Atwood to return to Duluth.

At four o'clock that afternoon Tom came out of Langley's. He had the strength of his nineteen years and his knowledge of the pine woods to join to Bentley's forty years and powers of endurance in their journey through the blazing forests. Bentley deemed it safer that Tom should place in the mail-pouch the seven thousand dollars which he carried.

"If I fail on the way," he remarked, with a half-smile, "you get it to the men."

At five o'clock man and boy rode out of Pearl Lake and headed to the north and west. During the first ten miles they had little to say to each other. In many places the trail was so narrow that riding abreast was often impossible. The mule had an easy gait and the mare followed close at its heels. The fires had not worked into the first stretch, but as night settled about them, the two came to a hilltop, and could see a lurid light sweeping up against the sky, not very far into the north. The air was filled with a sound like a bombardment, due to the ex-

pllosion of wood gases, while a strong odor of hot resin, carried by back winds, swept over them. The mare was wincing under the small burning darts that were striking her sides, but the mule never flinched.

"That's Beaver Dam burning now," said Tom. "I came through there this morning, and it was hot then. We turn to the west here and get down to Coon Creek. The Red Road runs in there, and I don't believe any fire's reached it yet. We'll strike some water soon. Soak your handkerchief in it and tie it over your mouth. That will keep you from choking."

"What's the Red Road?" Bentley asked.

"It isn't really a road," said Tom. "It's a four-mile stretch of red earth cut out by water wash from the old creek. The timber round it has never been burned. We'll get to it about midnight, and once we're through it the going ought to be easier. Here's water."

Tom had not seen the muddy pool of sedge water to his right, but the mule had found it. Dismounting, the boy soaked his neck-scarf in the slimy water and squeezed out drops of it into the eyes, nostrils and mouth of the mule. He showed Bentley how to wash out the dry, quivering nostrils of the mare. Then the man and boy bound the wet cloths over their own mouths.

A rain of sparks was falling over them, and in the distance they could see pines a hundred feet high suddenly change into steeples of fire.

In and round stumps they went, through parts of old cuttings. Some windfalls their animals lunged through. Others the beasts could not surmount, and exasperating detours were necessary. Above the flames curled thick clouds of oily smoke. The overheated air, which variable winds blew in every direction, caused the perspiration to flow from Tom and Bentley in small rivulets.

"Say!" called Tom, after they had made five miles more. "The wind's shifted since morning and the fire is working back. Getting hot!"

"No," Bentley was able to answer back. "I'm thinking of Langley's advice to me this morning to keep cool."

The mule and the mare painfully made their way down into Horse Alley, where another small pool of water was found. Here Bentley, perceptibly panting for fresh air, threw away his coat and waistcoat. He had not slept the night before, and the heat seemed to reach to the core of his heart. Tom made him souse his head in the dark, thick water. Then they pushed on.

After a time they reached Lookout Hill, the last climb before the point at which they would drop down to the Red Road. An inarticulate cry of horror came from Bentley's lips as they mounted the crest of this hill: billow upon billow of fire was racing in on them from the north and east.

"It's ride for our lives, Mr. Bentley!" shouted Tom, as he felt the surge and heat of the wind upon his cheeks. "The fire will be about us in half an hour if we don't. What's the matter?"

Heat, fatigue and anxiety had proved too much for Bentley. He sagged forward in his saddle; his body wobbled from side to side, and threatened to fall to the spark-covered ground. His throat was choked with ash and smoke, his brain reeled. A charred tree limb flying through the air caught him brutally on the side of his face, but he did not even know that it had struck him. Whatever his eyes looked upon seemed a deadly red. Then consciousness left him.

Any delay was dangerous. Tom knew that Bentley's safety depended on holding him on the mare and on keeping the mare in the track of the mule. He detached from his own saddle several straps, and with these bound Bentley to the mare. The animal was whinnying pitifully, but the splendid courage that the mule was displaying held its fear in check.

Tom could not hold the mare's bridle-rein,—the trail did not admit of that,—but he was confident that she would not desert the mule. Nor did she. Although all kinds of ugly, flaming things were now flying through the upper air, and the red light was growing stronger, both animals made their way steadily down to Coon Creek and the beginning of the Red Road.

One glance revealed to Tom that for

the first time the ancient growths of that rough way were afame. The tops of the trees were blazing and the lower underbrush was afire in many places. That the Red Road would in a short time be like a furnace was only too apparent.

To turn back was impossible—the new sweep of the fire was already on the trail over which the two had travelled in the afternoon. To go ahead to the uplands from which the timber had been cut was the only chance. Bentley was limp upon the mare's back and breathing hard. Tom got both animals into the shallow waters of the creek, and soaked them, Bentley and himself.

Then he yelled to the mare to follow, and all made for the Red Road. The air was filled with the sound of crashing—branches and tree trunks were breaking and exploding before the blast of fire and wind. Tongues of flame ran here and there like threatening snakes. Beds of dead leaves were caught up like mats, set afire, and sent crackling across the pitiless glow in the heavens.

A smashing, smothering sound behind Tom, whose swollen eyes were running scalding water, made him turn in his saddle. The mare had stood to her duty, but a falling branch, sizzling with fire, had caught her across the head and ended her days of usefulness. She was down in the road, and Bentley was pinioned under her.

"If I fail, go on, get through," Bentley had said to him, but that order did not stay in Tom's mind an instant. Although the fire was in and on him, he was down and hauling the hot body of the mare from the stricken man. He unbound the straps which held him, and then for one instant he thought. He could not lift Bentley's weight to the mule's back, but he had taught the mule in days gone by to kneel. He led the animal to Bentley's side and spoke in its ear:

"Down, Jupiter! Down!" Down sank Jupiter, with the devilish fires leaping far above him, and then Tom rolled and hauled Bentley into the saddle, strapped him down again, ordered Jupiter up, and grabbing him by the bridle-rein, ran by his side through that path of leaping fire. Tom stumbled, lost his hold on the rein, and fell. Jupiter stopped. Tom regained his feet and was at the rein again. Jupiter plunged on. The mule was burned in a score of places and Tom felt charred from feet to head.

Twice the mule and the boy floundered into Coon Creek, finding cooling mud, but little water there. Tom covered Bentley's face with mud and swabbed the mule's blistered mouth. Somehow, some way, at two in the morning they climbed out of the torrent and ruin of the Red Road. Tom stood on the cleared uplands, an ocean of fire below him. Ahead was an open trail leading to Quiver Lake. Sweet night winds, untouched by fire, swept over it.

Johnson, at Quiver Lake, saw the party coming in at dawn—Tom, staggering and limping; an inert man in the saddle; a flame-scarred mule. He knew Bentley as soon as he set eyes upon him, but Bentley was for the present wholly lost to his whereabouts. The strikers were standing in a line by a lean-to at the side of the cook-house.

"I have the money," said Tom. "It's in the mail-pouch. Take care of him—and—and—Jupiter. I'm all right."

Then the earth and the sky swam about him, and he fainted.—H. I. Cleveland, in Youth's Companion.

Buttercup-Night.

Why is it that in some places one has such a feeling of life being, not merely a long picture-show for human eyes, but a single breathing, glowing, growing thing, of which we are no more important a part than the swallows and magpies, the foals and sheep in the meadows, the sycamores and ash-trees and flowers in the fields, the rocks and little bright streams, or even than the long, fleecy clouds and their soft-shouting drivers, the winds?

True, we register these parts of being, and they—so far as we know—do not register us; yet it is impossible to feel, in such places as I speak of, the busy, dry, complacent sense of being all that matters which in general we humans have so strongly.

In these rare spots, that are always

in the remote country, untouched by the advantages of civilization, one is conscious of an enwrapping web or mist of spirit—is it, perhaps, the glamorous and wistful wraith of all the vanished shapes that once dwelt there in such close comradeship?

It was Sunday of an early June when I first came on one such, far down in the West country. I had walked with my knapsack twenty miles; and, there being no room at the tiny inn of the very little village, they directed me to a wicket gate, through which, by a path leading down a field, I would come to a farm-house, where I might find lodging. The moment I got into that field I felt within me a peculiar contentment, and sat down on a rock to let the feeling grow. In an old holly-tree rooted to the bank about fifty yards away, two magpies evidently had a nest, for they were coming and going, avoiding my view as much as possible, yet with a certain stealthy confidence which made one feel that they had long prescriptive right to that dwellingplace. Around, far as one could see, was hardly a yard of level ground; all hill and hollow, that long ago had been reclaimed from the moor; and against the distant folds of the hills the farm-house and its thatched barns were just visible, embowered amongst beeches and some dark trees, with a soft bright crown of sunlight over the whole. A gentle wind brought a faint rustling up from those beeches and from a large lime-tree that stood by itself; on this wind some little snowy clouds, very high and fugitive in that blue heaven, were always moving over. But what struck me most was the buttercups. Never was field so lighted up by those tiny lamps, those little bright pieces of flower china out of the Great Pottery. They covered the whole ground, as if the sunlight had fallen bodily from the sky, in tens of millions of gold patines; and the fields below as well, down to what was evidently a stream, were just as thick with the extraordinary warmth and glory of them.

Leaving the rock at last, I went towards the house. It was long and low and rather sad, standing in a garden all mossy grass and buttercups, with a few rhododendrons and flowery shrubs, below a row of fine old Irish yews. On the stone verandah a grey sheep-dog and a very small golden-haired child were sitting close together, absorbed in each other. A woman came in answer to my knock, and told me, in a pleasant, soft, slurring voice, that I might stay the night; and dropping my knapsack, I went out again. Through an old gate under a stone arch I came on the farm-yard, quite deserted save for a couple of ducks moving slowly down a gutter in the sunlight; and noticing the upper half of a stable-door open, I went across, in search of something living. There, in a rough, loose box, on thick straw, lay a black, long-tailed mare, with the skin and head of a thoroughbred. She was swathed in blankets, and her face, all cut about the cheeks and over the eyes, rested on an ordinary human's pillow, held by a bearded man in shirt-sleeves; while, leaning against the white-washed walls, sat fully a dozen other men, perfectly silent, very gravely and intently gazing. The mare's eyes were half-closed, and what could be seen of them was dull and blueish, as though she had been through a long time of pain. Save for her rapid breathing, she lay quite still, but her neck and ears were streaked with sweat, and every now and then her hind legs quivered. Seeing me at the door, she raised her head, uttering a queer, half-human noise, but the bearded man at once put his hand on her forehead, and with a "Woa, my dear—woa, my pretty!" pressed it down again, while with the other hand he plumped up the pillow for her cheek. And, as the mare obediently let fall her head, one of the men said in a low voice: "I never see anything so like a Christian!" and the others echoed him, in chorus, "Like a Christian—like a Christian!" It went to one's heart to watch her, and I moved off down the farm lane into an old orchard, where the apple trees were still in bloom, with bees—very small ones—busy on the blossoms, whose petals were dropping on to the dock leaves and buttercups in the long grass. Climbing over the bank at the far end, I found myself in a meadow the like of which—so wild and yet so lush—I think I have never seen. Along

one hedge of its meandering length were masses of pink mayflower; and between two little running streams quantities of yellow water iris—"daggers," as they call them—were growing; the "print-frock" orchid, too, was all over the grass, and everywhere the buttercups. Great stones coated with yellowish moss were strewn among the ash trees and dark hollies; and through a grove of beeches on the far side, such as Corot might have painted, a girl was running with a youth after her, who jumped down over the bank and vanished. Thrushes, blackbirds, yaffles, cuckoos, and one other very monotonous little bird were in full song; and this, with the sound of the streams and the wind, and the shapes of the rocks and trees, the colors of the flowers, and the warmth of the sun, gave one a feeling of being lost in a very wilderness of Nature. Some ponies came slowly from the far end, tangled, gipsy-headed little creatures, stared, and went off again at speed. It was just one of those places where any day the Spirit of all Nature might start up in one of those white gaps that separate the trees and rocks. But though I sat a long time waiting, hoping—She did not come.

They were all gone from the stable when I went back up to the farm, except the bearded nurse, and one tall fellow, who might have been the "Dying Gaul," as he crouched there in the straw; and the mare was sleeping—her head between the nurse's knees.

That night I woke at two o'clock, to find it almost as bright as day, with moonlight coming in through the filmy curtains. And, smitten with the feeling that comes to us creatures of routine so rarely—of what beauty and strangeness we let slip by without ever stretching out hand to grasp it—I got up, dressed, stole downstairs, and out.

Never was such a night of frozen beauty, never such dream-tranquility. The wind had dropped, and the silence was such that one hardly liked to tread even on the grass. From the lawn and fields there seemed to be a mist rising—in truth, the moonlight caught on the dewy buttercups; and across this ghostly radiance the shadows of the yew trees fell in dense black bars. Suddenly, I bethought me of the mare. How was she faring, this marvellous night? Very softly opening the door into the yard, I tiptoed across. A light was burning in her box. And I could hear her making the same half-human noise she had made in the afternoon, as if wondering at her feelings; and instantly the voice of the bearded man talking to her as one might talk to a child: "Oover, my darlin'; yu've been long enough o' that side. Wa-ay, my swate—yu let old Jack turn yu, then!" Then came a scuffling in the straw, a thud, again the half-human sigh, and his voice: "Putt your 'ead to piller, that's my dandy gel. Old Jack wouldn't 'urt yu; no more'n if yu was the queen!" Then only her quick breathing could be heard, and his cough and mutter, as he settled down once more to his long vigil. I crept very softly up to the window, but she heard me at once; and at the movement of her head the old fellow sat up, blinking his eyes out of the bush of his grizzled hair and beard. Opening the door, I said:

"May I come in?"

"Oo, ay! Come in, Zurr, if yu'm a mind tu."

I sat down beside him on a sack, and for some time we did not speak, taking each other in. One of his legs was lame, so that he had to keep it stretched out all the time; and awfully tired he looked, grey-tired.

"You're a great nurse!" I said at last. "It must be hard work, watching out here all night."

His eyes twinkled; they were of that bright grey kind through which the soul looks out.

"Aw, no!" he said. "Ah don't grudge it ver a dumb animal. Poor things—they can't 'elp theirselves. Many's the night ah've zat up with 'orses and beasts tu. 'Tes en me—can't bear to zee dumb creatures zuffer!" And, laying his hand on the mare's ears: "They zay 'orses 'aven't no souls. 'Tes my belief they'm souls, zame as us. Many's the Christian ah've seen ain't got the soul of an 'orse. Zame with the beasts—an' the ship; 'tes only they'm can't spake their minds."

"And where," I said, "do you think they go to when they die?" He looked

at me a little queerly, fancying, perhaps, that I was leading him into some trap; making sure, too, that I was a real stranger, without power over him, body or soul—for humble folk in the country must be careful; then, reassured, and nodding in his bushy beard, he answered knowingly:—

"Ah don't think they goes zo very far!"

"Why? Do you ever see the spirits?"

"Naw, naw; I never zeen none; but, for all they zay, ah don't think none of us goes such a brave way off. There's room for all, dead or alive. An' there's Christians ah've zeen—well, ef they'm not dead for gude, then neither aren't dumb animals, for sure."

"And rabbits, squirrels, birds, even insects? How about them?"

He was silent, as if I had carried him a little beyond the confines of his philosophy, then shook his head:—

"'Tes all a bit dimsy. But yu watch dumb animals, even the laste littlest one, an' yu'll zee they knows a lot more'n what we du; an' they du's things, tu, that putts shame on a man's often as not. They've a got that in 'em as passes show." And not noticing my stare at that unconscious plagiarism, he added: "Ah'd zunner zet up of a naight with an 'orse than with an 'uman; they've more zense, and patience." And, stroking the mare's forehead, he added: "Now, my dear, time for yu t' 'ave yure bottle."

I waited to see her take her draught, and lay her head down once more on the pillow. Then, hoping he would get a sleep, I rose to go.

"Aw, tes nothin' much," he said, "this time o' year; not like in winter. 'Twill come day before yu know, these buttercup nights'; and twinkling up at me out of his kindly bearded face, he settled himself again into the straw. I stole a look back at his rough figure propped against the sack, with the mare's head down beside his knee, at her swathed black body, and the gold of the straw, the white walls, and dusky nooks and shadows of that old stable, illumined by the "dimsey" light of the old lantern. And with the sense of having seen something holy, I crept away up into the field where I had lingered the day before, and sat down on the same half-way rock. Close on dawn it was, the moon still sailing wide over the moor, and the flowers of this "buttercup night" fast closed, not taken in at all by her cold glory! Most silent hour of all the twenty-four—when the soul slips half out of sheath, and hovers in the cool; when the spirit is most in tune with what, soon or late, happens to all spirits; hour when a man cares least whether or no he be alive, as we understand the word. . . . "None of us goes such a brave way off—there's room for all, dead or alive." Though it was almost unbearably colorless, and quiet, there was warmth in thinking of those words of his; in the thought, too, of the millions of living things snugly asleep all round; warmth in realizing that unanimity of sleep. Insects and flowers, birds, men, beasts, the very leaves on the trees—away in slumberland. Waiting for the first bird to chirrup, one had, perhaps, even a stronger feeling than in daytime of the unity and communion of all life, of the subtle brotherhood of living things that fall all together into oblivion, and, all together, wake.

When dawn comes, while moonlight is still powdering the world's face, quite a long time passes before one realizes how the quality of the light has changed; and so, it was day before I knew it. Then the sun came up above the hills; dew began to sparkle, and color to stain the sky. That first praise of the sun from every bird and leaf and blade of grass, the tremulous flush and chime of dawn! One has strayed far from the heart of things that it comes as something strange and wonderful! Indeed, I noticed that the beasts and birds gazed at me as if I simply could not be there at this hour that so belonged to them. And to me, too, they seemed strange and new—with that in them "that passed show," and as of a world where man did not exist, or existed only as just another form of life, another sort of beast. It was one of those revealing moments when we see our proper place in the scheme; go past our truly irreligious thought: "Man, hub of the Universe!" that has founded most religions. One

of those moments when our supreme importance fades out in the light of a purer spiritual ecstasy; and one sees clear, with the eyes of true religion, man playing his little not unworthy part, in the great game of Perfection.

But just then began the crowning glory of that dawn—the opening and lighting of the buttercups. Not one did I actually see unclose, yet, all of a sudden, they were awake, and the fields once more a blaze of gold.—John Galsworthy, in *The Nation*.

Only one Explanation.

Ex-Governor Adams of Colorado, who, according to a writer in the *Denver News*, told the following story, began by declaring it to be libelous. Nevertheless, it is amusing, and at some time in the not very distant past, would have had all the probabilities on the side of its truth.

An Eastern college professor once visited the West on a geological expedition. He put up with a rancher. The first night on the ranch he slept in his clothes, like the rest of the boys, out of politeness, but the second night he complained about it.

"I can't stand it," he said to the rancher. "I don't seem to get my rest. My boots especially incommode me."

So the hospitable rancher stretched a cowskin across the shack, and that night the professor slept in his long, white nightgown by himself.

At daybreak the night foreman came in while the professor was still slumbering. The foreman cast one glance at the sleeper, then tiptoed forth, and said to the rancher:

"Rather sudden, wa'n't it?"

"What?" the rancher asked.

"Why, the death of the old prof."

"He's not dead," said the rancher; "he's sleepin'."

"Then what is he wearin' them b'iled clothes for?" snorted the foreman.

"Never saw a chap laid out in b'iled clothes afore 'ceptin' he was dead."

Rosies.

(By Agnes I. Hanrahan.)

There's a rosie show in Derry,
An' a rosie show in Down;
An' 'tis like there's wan, I'm thinkin',
'Ill be held in Randalstown,
But if I had the choosin'
Av a rosie prize the day,
'Twould be a pink wee rosie
Like he plucked when rakin' hay.
You pink wee rosie in my hair—
He fix it, troth—an' kissed it there!
White gulls wor wheelin' roun' the sky,
Down by—down by.

Ay, there's rosies sure in Derry,
An' there's famous wans in Down,
Och, there's rosies all a-hawkin'
Through the heart av London town!
But if I had the liftin'
Or the buyin' av a few,
I'd choose just pink wee rosies
That's all drenchin' wid the dew—
You pink wee rosies wid the tears!
Och, wet, wet tears!—ay, troth 'tis
years
Since we kep' rakin' in the hay,
Thon day—thon day.

SUPERFLUOUS GRIT.

During a particularly nasty dust-storm at one of the camps, a recruit ventured to seek shelter in the sacred precincts of the cook's domain.

After a time he broke an awkward silence by saying to the cook:

"If you put the lid on that camp-kettle you would not get so much of the dust in your soup."

The irate cook glared at the intruder, and then broke out:

"See here, me lad. Your business is to serve your country."

"Yes," interrupted the recruit, "but not to eat it."—Tit-Bits.

The two thousand aliens interned in Northern Ontario have cleared about 3,000 acres in each camp along the National Transcontinental Railway. In part of the land crops are growing.

News of the Week

The war is now costing Great Britain \$15,000,000 per day.

Twelve thousand German troops are with the Turks on the Gallipoli Peninsula.

Great Britain is preparing to carry on aerial warfare on a gigantic scale. Each of the new aeroplanes will carry five men. A French aerial squadron, consisting of 23 aeroplanes, on June 15th, bombarded Karlsruhe, the capital of Baden. One hundred and thirty projectiles were dropped, and many fires broke out, the squadron finally departing with the loss of only two aeroplanes.

Lieut. Reginald A. Warneford, V. C., who recently gained fame by destroying a Zeppelin over Belgium, was killed on June 17th by a fall from an aeroplane.

A Glasgow munition firm recently sent eight of its men to the front to interview the soldiers in the trenches. Everywhere there was a cry for more shells, and the workmen have returned as missionaries to beg everywhere for an increase in all supplies of war.

A British hospital in Northern France was recently shelled by Germans in two armored autos. The Germans were captured and made prisoners.

On June 21 the plant of the Peabody Co., manufacturing British Army uniforms, at Walkerville, Ont., was partially destroyed by an explosion believed to be due to a bomb placed by German spies, and an attempt was made to destroy, in the same way, the Windsor armory. The police of all other Ontario cities are warned to watch public buildings.

During the past week there has been severe fighting along the entire line from Belgium to the Dardanelles. The British and Belgians have been on the offensive about Ypres and in the La Bassée district, and report some slight gains in spite of the fact that the Germans have been heavily reinforced. . . . About Arras and in Alsace terrible battles have been fought; on one occasion the French batteries near Neuville fired continuously, during 24 hours, an average of over 200 shells a minute. Many of the towns in Alsace have come into possession of the French and have regained their former names. . . . In Galicia, the Russians, owing to lack of munitions and ammunition, have been steadily withdrawing before General Von Mackensen's forces, and at time of going to press the fall of Lemberg is expected at any moment. That event will probably be followed up by a determined German drive upon Warsaw. . . . From Italy, however, two brilliant victories over the Austrians are reported, one at Monte Nero, and the other at Plava. These will greatly facilitate the Italian advance towards Trieste. . . . In the Dardanelles region events move slowly, the conflict there having developed, as in the west, into tedious trench warfare, in which the Australians and New Zealanders have lost as many men as have the Canadians in Belgium and France. It will be some time yet before Constantinople falls, and it becomes possible to pour needed supplies into Russia.

The Cow Girl's Adventure.

By E. Chalmers Hennessy.

"Dad, there are some of the herd wandering away. I will ride out and round them up at once," Vera Morton announced as she entered the living-room just after coming down stairs one bright summer morning.

"Well, you had better go. I guess you are eager for a canter, eh?" her father answered pleasantly, looking up from his week old newspaper.

"Oh, I could ride for miles and miles to-day, it is such a grand morning."

"Don't go right over to the mountains, though," her father replied teasingly, reminding her of a trip she had undertaken years before when first

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allowed to roam around alone, on horse-
back, and then he laid down the paper
to go out and saddle her horse.

Vera was the only child of the
rancher, a young woman of twenty sum-
mers, the cowgirl of the ranch because
she loved the work. A native of the
Canadian Northwest, she had grown up
there and loved the prairies intensely,
and the care-free life on her father's
large ranch. From early childhood she
had been accustomed to ride, and was
an accomplished and fearless rider.

The Fair Valley Ranch was the name
of the Morton's property in Alberta,
near the foothills, and just beyond were
the Rocky Mountains, with their beau-
tiful and majestic peaks pointing heav-
enward. But many broad acres lay be-
tween the home of the rancher and the
hills. They were of level prairie on
which the cattle grazed, roaming at will.
The large herd had been out in the open
all winter, keeping together generally
and feeding on the sweet, prairie grass;
sometimes it was covered over by a
light snowfall that they brushed away
with their tongues.

Vera, prepared for her trip in her
short, brown riding dress with a divided
skirt, had the appearance of a girl of
fifteen. Over her raven black hair she
put on her riding hat, a soft, tan
colored felt that fitted down snugly on
her head and turned up away from her
face in the front. With a whip in her
hand and a revolver fastened in place
to her leather belt she picked up her
Indian buckskin gauntlets and left the
house, drawing them on. She went out
to meet her father when she saw him
bringing up the broncho, an Indian
horse, fleet of foot and tireless as a wild
animal.

In her pocket she had some lumps of
sugar as a treat for her Brownie, and
giving him one, she stroked his nose
caressingly. Then she sprang into the
saddle, sitting astride, according to the
custom of the country.

Looking over towards the west she
saw a few dark objects apart from the
rest; some of the bunch were straying
away in the distance. She had not
been mistaken, they were farther away
than before instead of returning to the
herd, as she thought they might have
done. In that clear air one could see
for miles over the level vastness.

Her intention was to round up the

herd and drive them into the corral
nearer the house.

"Don't you wish you were coming,
too, dad? It's a scrumptious morn-
ing."

"Some other time will suit me just
as well, Vera."

"Well, good-bye," she said as she
touched the broncho's fat sides as a
signal to start, and turned back to
wave her hand in a final salute to the
old man while going on to find the trail.
It did not take her long to reach it. At
a full gallop she set off, singing as she
went in a clear, sweet voice, one of her
favorite songs, one typical of the golden
west—

"In the Blue Ridge Mountains of Virginia,
On the trail of the Lonesome Pine."

Like a veritable spirit of the wind she
flew over the prairie, startling the little
gophers out of their holes when they
stood up on their hind feet to look at
her. Very gradually she gained on the
slowly-moving herd, but the straying
ones went faster than the rest and be-
sides were considerably in advance of
the others.

Vera Morton was a beauty worshipper,
fascinated by the ever-changing radiance
of light and shade around the Rockies
ahead of her, range after range stand-
ing in rugged grandeur, with here and
there a snow bed, or a glacier gleaming
in the sunlight. While gazing at the
beautiful scene she checked the broncho
into a leisurely walk. Such wealth of
color, of pale pink and then purple haze
gradually merging into the bright, blue
sky dotted with white, fleecy clouds were
in view accompanied by such wild
luxuriance of beauty, just as Nature
formed it, untouched by the hand of
man. The tall pine trees at the foot of
the mountains completed the picture, in
her opinion, as she stopped Brownie.
Castle Mountain, with its peaks like the
turrets and battlements of an old world,
fortified mansion she saw first, and then
Crows Nest, with its huge top raised
higher than the rest, and slowly her
eyes travelled to Sofa Mountain, where
she fancied she would like to sit down
to rest after climbing around the
others. That feat she intended to per-
form some time in the near future, per-
haps the following day. Then she re-
membered her errand and starting up
her horse she hurried on, singing as she
went.

Before she reached the herd she saw
at least two were farther ahead still,
and after skirting around the herd went
on in advance after the rovers, only to
discover that they had disappeared into
the coulee. Brownie needed very little
urging but Vera must make up for lost
time, and she gently touched him with
her whip and he made a quick dash for-
ward, galloping off like a thoroughbred
race horse. After about half an hour
ride she reached the edge of the coulee,
where she caught sight of them far
ahead, so, slowly she guided her mount
down the rather steep side of the ravine
in pursuit, but lost sight of them when
the bottom was reached, for they were
hidden from view by the bush. Exam-
ining the ground around was of no avail;
she was off the track of the footmarks.
After wandering around for some time
she discovered a spring to one side, rode
to it and then readily found the hoof-
marks in the damp ground about there.
Following these she rode in a straight
line out of the coulee when she found no
trace of her cattle on reaching the plain
above, for only a short distance ahead
was the valley of the foothills.

Vera was becoming anxious then, for
she was on the verge of the foothills,
where she would have to go through in
further search. Her horse had stepped
into a badger hole and had almost fal-
len, which gave her a jolt, and only
that she was a skillful rider she would
have been thrown out of the saddle. He
soon recovered his usual gait, but she
was obliged to be more careful in future
and choose her path over the rough,
uneven ground. Her song had died
away on her lips by this time as she
looked in every direction. Just a
glimpse of her cattle greeted her eyes
and then they disappeared again, but
that was all that was necessary for a
guide. So much bush and little hills
were around, the chances were that they
would soon be in view again. In and
out among the hills she rode, like one
playing hide and seek without finding
the ones sought.

That she had travelled far she was
aware, but when a small hut came in
view, the first sign of an habitation she
had seen since leaving home, she was
astonished, for she suddenly realized that
she had covered much more ground than
she thought. For a long time she had
been off their ranch and in a strange,
rough part of the country, alone. Think-
ing it might end her search more quick-
ly to inquire of the inhabitants of the
hut, she rode towards it, looking every-
where at the same time, without a trace
of fear or thought of danger.

The Indians, for such they were, saw
her approaching and realized she was a
cow girl that they did not want to have
come around there, for they had just
driven her two cows into their shed with
the intention of keeping them for them-
selves, and certainly did not have the
slightest inclination to let them go free.
Their code of law was "finders, keepers,"
in spite of all any one might say to the
contrary. Had they seen her before get-
ting possession of her stock they would
not have taken them, but as it was, an
attempt on her part to recover them
would be of no use.

Their little girl of six had also seen
the cows, and at the very time the
young woman came in sight was out in
front on the road where she would
probably be questioned about them.
That path was the only one for the
cow girl to take, for it wound around
between their dwelling and the hill
directly in front.

A woman Vera knew to be an Indian
by her native costume, a bright plaid
shawl and her long braids of black hair
hanging over her shoulders, ran out in-
to the road towards her child, calling
her and held up one hand in warning,
at the same time put her other hand
over her mouth, to show the little one
she was not to speak. She noticed her
mother's action and understood but did
not know why, though it did not mat-
ter for she was accustomed to obey her
parents' orders, and disobedience had
always been followed by a painful ordeal
for herself.

Vera, not knowing what the squaw's
intentions were, at first hurried on to
speak to her, without dismounting, be-
fore she would have time to take the
girl back to the house, but having seen
her signal for silence, she realized how
useless it would be to stop.

The Indian at the rear of the house
went inside, picked up his shot-gun from
behind the door as well as a cartridge
pouch hanging beside it, loaded the gun
and came out the back door. He was
afraid the cow girl thinking she had
probably seen him taking in her stock
and would make trouble for him if they
were not released. Indeed, he was liable
for arrest for intent to steal even if
they were given up. Quickly he thought
it over and decided it was best to shoot
her, for "dead men tell no tales." She
might be the first of a searching party,
and if she were killed the others would
not know where she had disappeared to,
for he would hide her. It was a
desperate game but he considered it the
only way, so he took aim quickly and
fired.

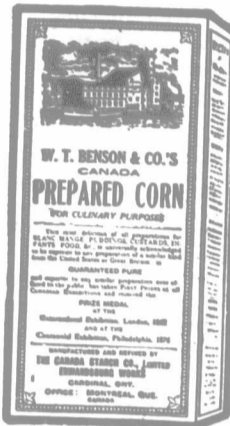
Bang! the report of a gun was heard
just before Vera reached the hut. So
close the bullet came that she heard it
whizz past behind her. Instantly she
realized the danger she was in and
touched Brownie with the whip, and
drew her revolver she had brought for
the purpose of shooting into the air to
turn the runaway cattle back, as the
cowboys were accustomed to do some-
times, but now she was obliged to fire
in self defence. Brownie had given a
great dash ahead and passed the house
like a flash of lightning. Another bul-
let. The Indian had run along back
of the hut and fired again. Good for-
tune favors the brave, it is said, and
certainly in her case it proved true, for
he missed her that time also. The one
shot she fired was the last one in her
revolver, so she immediately replaced it
in its holster while passing the house.

The broncho galloped wildly ahead;
the Indian child had started towards
home but sprawled on the path in front
of the horse, afraid of being hurt and
unable to get out of the way. Vera,
afraid of the bullets behind, let the
horse jump over the little girl and on
past the squaw leaning against the hill,
aghast at the danger her child was in.

On, on, Vera flew, urging her faithful

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Century of Quality
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by the name
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In Western Ontario That
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Send for them, telling us what
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78 Dundas St. LONDON, ONT.

A Real Woman Abhors



the appearance of masculinity.
Nothing accentuates this more
than to have one's lip, chin,
cheeks, brows or neck dis-
figured with

Superfluous Hair

We have had over 20 years'
experience in successfully treat-
ing this and other facial blem-
ishes, including moles, warts,
red veins, small birthmarks, "cowlicks," etc., and
assure satisfaction in each case.

Write to-day for descriptive booklet "F" and
sample of toilet cream.

Hiscott Dermatological Institute
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"1900" Gravity Washer

Sent free for one month's trial.

Write for particulars.

"1900" WASHER COMPANY
357 Yonge Street, Toronto, Ontario
(Factory 79-81 Portland Street, Toronto)

Stock Farm For Sale

150 acres clay loam, Scott Township, Ontario
County, thirty-five miles north of Toronto,
three miles to good town; ten roomed dwelling,
good bank barn, drive barn, pigery, poultry house,
twenty acres good bush, spring creek, no encum-
brance, selling to close estate, thirty-five dollars
per acre.

JOHN FISHER & CO.,
Lumsden Building - - TORONTO

Richards
QUICK NAPTHA
THE
WOMAN'S SOAP
MADE IN CANADA

Brownie to its utmost speed to reach a place of safety. Soon they left the Indians behind at a safe distance and Vera glanced back to ascertain if she was being pursued. Some more bullets had come her way but not one hit her, for after passing the squaw she leaned forward onto Brownie's neck and so escaped them.

That they were guilty people she was reasonably sure, but her first thought was to reach home as quickly as possible. Love of adventure and novelty was strong within her, though she had plenty for that day at any rate. For some time she did not know what direction to take; finally by looking at the mountains she was able to direct her course. Hours had passed since she started out, and no human being except those Indians were seen.

Her heart gave a throb of thankfulness as she recognized ahead of her the scarlet coat of a Royal Northwest Mounted Policeman riding leisurely along on his patrol, in the opposite direction. Around her neck, inside her waist, she wore a cord to which was attached a small whistle and this she blew with all her might. The policeman heard a faint sound resembling a whistle behind him, turned around and saw a horse and rider. He halted his horse to listen. Vera blew the whistle again and he turned and rode quickly towards her. She hastened to meet him, then as briefly as possible related the circumstances of her search and the Indian's attempt to shoot her. The stalwart young man found her story very interesting, and somehow considered it necessary to ask many questions about the location of the hut. He assured her he would report her loss to the others of the force, and would endeavor to recover the strayed cattle as soon as possible. The Indians would be visited and the premises searched if necessary.

"I have come from Fair Valley Ranch. Do you know if I am on the right trail for home?"

After considering a few minutes he was reluctant to tell her how far she was from home, and said he believed she would strike the trail farther on, in the same direction she had been going.

After he had ridden away she remembered she had not inquired about the time and regretted not having done so. It must be long after dinner time she considered, for she felt so ravenously hungry. Tired of the saddle after the strain she had undergone, she dismounted and put her arms around Brownie's neck and petted him. Some of the sugar from her pocket she ate herself and then gave the broncho a couple of lumps. A few minutes only she lay flat on the prairie for a rest, then led the horse to a spring nearby where they both had a drink. Once more in the saddle she rode leisurely on her homeward way thinking of the policeman and how fine looking he was, also how becoming his smart uniform was on him. A hope that he would not fall a victim to the Indian's bullets lingered in her mind.

When she came in sight of the herd on their own ranch she went around them and was successful in her endeavor to drive them where she wanted then, nearer the house.

Never had she been so glad to see her own home as she was that eventful afternoon. She felt like hurrahing at first sight of it, but instead sang "Home Sweet Home." Brownie also arched his neck in pleasure, and of his own accord trotted along at a faster gait than before.

Her mother and father were out in the yard to meet her, all anxiety to know why she was so long delayed.

"I've been all the way to the foothills and had a chance to be killed by an Indian," she said before she dismounted.

"And now I hope my dinner is ready. I'll tell you the rest afterwards."

Vera was looking out over the boundless and beautiful prairie late the following afternoon when she noticed the red coat of a mounted policeman approaching, and at once expected to meet her new acquaintance. That particular mounted policeman was very energetic, judging by the results in that case, for he came bringing the two cows with him.

The Mortons welcomed him cordially, invited him in to rest and to relate his experience with the Indian. Very reticent he seemed to be concerning that

The People are the Best Judges

What is it that has kept the Sherlock-Manning Piano Factory running with a full staff ever since the beginning of the war? What is it that has compelled us to enlarge our plant no less than five times since the founding of the business. **Public Confidence.**

We have won the confidence of the Canadian people and consider it a priceless asset in our business. The people are the best judges, and they pronounce the

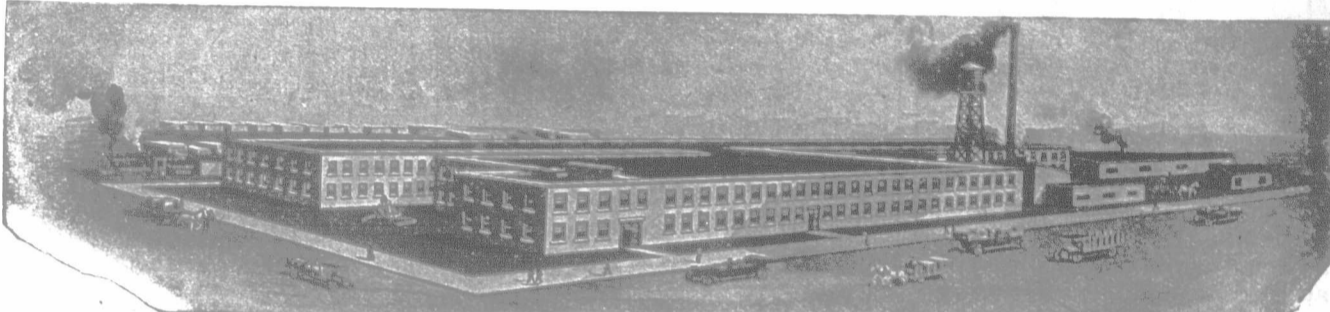
SHERLOCK-MANNING 20th Century PIANO

"Canada's Biggest Piano Value"

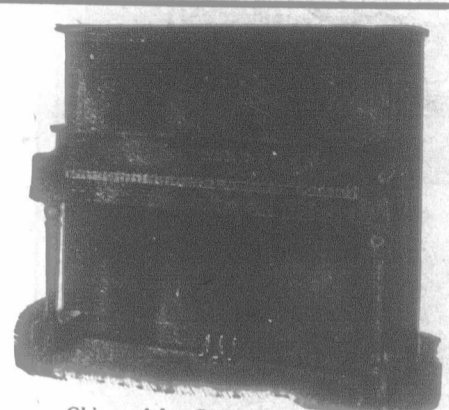
For years we have sold a piano containing the highest-grade action, hammers, strings, etc. for \$100 less. Our claims were investigated and proved by 1,200 Canadian families who bought Sherlock-Manning Pianos last year.

SAVE \$100 YOURSELF

We repeat our offer—the best Piano that can be produced, for \$100 less and backed by a ten year guarantee, behind which stands the great plant you see below.



Sherlock-Manning Piano Company, London, (No Street Address Necessary) Canada 80



Chippendale—Style 75
Write Us To-day Just send a postcard to Dept. 4, requesting the proof and a copy of our handsome Art Catalogue L—FREE.

Few products in household use to-day have bridged the gap from the primitive things of sixty years ago as has

Redpath Sugar

Canada's first refined sugar, "Ye Olde Sugar Loafe" of 1854, was REDPATH; so was the first Canadian granulated sugar, in 1880, and the first Sugar Cartons in 1912.

The leader in every advance, Redpath Sugar stands to-day first in the estimation of tens of thousands of Canadian families. 131

Ask for "REDPATH" in Individual Packages. 2 and 5 lb. Cartons. 10, 20, 50 and 100 lb. Bags.
CANADA SUGAR REFINING CO., LIMITED, MONTREAL.




affair and unwilling to discuss the matter, though he told them how he and a comrade on the force had been unable to procure the cattle without shooting at the man and taking him prisoner. His eyes frequently rested on Vera in the course of his narrative, and he drew her into the conversation at every opportunity. Since he met her he had looked forward to the time when he could call as a matter of business and then hoped it would not be the last occasion. He showed himself such a genuinely interesting young man that he made a good impression on the Mortons and was invited to call again any time he was in their neighborhood. His face lit up with pleasure as he assured them he would be delighted to come in as often as he had time.

Vera Morton and Robert Stanfield, R. N. W. M. P. found mutual pleasure in his frequent visits. Their tastes were very much the same in many ways, they discovered as they became better acquainted.

Before the summer had passed, when she went on her mountain climbing expedition she had his devoted and enthusiastic company, which seemed to make the trip much more enjoyable. Indeed, she felt then that Paradise had been found in reality, among the sublime and beautiful Rocky Mountains of Canada.

SAVE YOUR MONEY & SAVE YOUR COWS

Mail the coupon Below and we will tell you how

YOU SAVE YOUR MONEY when you don't milk by hand: when you cut out the waste of the careless milker, and the loss through the unhygienic condition of the open pail. The EMPIRE MECHANICAL MILKER is the greatest labor saver on the farm, with it two men can milk as many cows in a given time as seven can by hand.

YOU SAVE YOUR COW by giving her teats in milking a gentle and regular massage which keeps them in healthy condition. This is frequently not done in hand milking and consequently the cow is irritated and exhausted, and as a milk producer injured.

EMPIRE MECHANICAL MILKER.

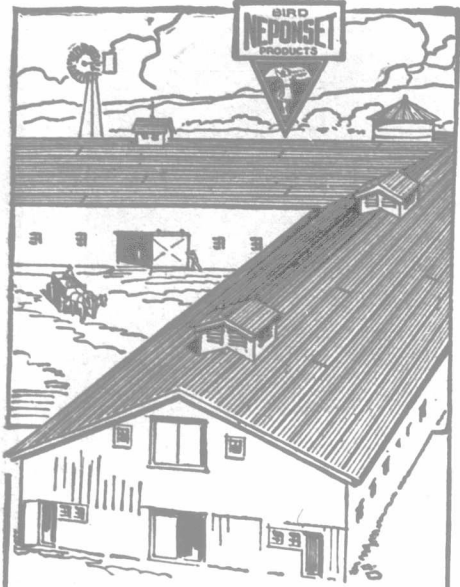
--- works by vacuum and atmospheric pressure so that its massage of the teats is always even and gentle and the milk yield is often increased. Even nervous cows stand quiet and injury to the udder is impossible. The Empire costs less to install and operate than other mechanical milkers because it needs only one pump and pipe line.

The Empire Mechanical Milker is in successful operation at the Central Experimental Station at Ottawa and at many smaller dairies.

If you have Cows fill out the Coupon.

THE EMPIRE CREAM SEPARATOR CO. OF CANADA, LIMITED
TORONTO
WINNIPEG

COUPON
Name _____
Address _____
Without obligation to me send me information Empire Mechanical Milkers. I have _____ cows



Don't Take Just Any Roofing

Get the kind that is made not on the "how fast," but on the "how good" principle. Then you will never get a poor roofing when you need a good one. The ready-to-lay

NEPONSET PAROID ROOFING

is long on the roof because long in the making. It's the only way to surely make a roofing absolutely reliable and one hundred per cent. weather- and waterproof.

Paroid is only one of the Neponset Roofings. There are others meeting every requirement and pocket-book. Granitized Shingles for pitch roofs; Frosiate, the colored roofing, and other roofings for all kinds of buildings, from temporary sheds to the largest railroad buildings.

A substitute for laths and plaster—Neponset Wall Board, in different finishes—may be applied directly to studding or over old plaster. Made in Canada. Sold by dealers everywhere.

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If you do not know the Neponset Dealer in your town, write for his name. If there is no dealer there, we have a special proposition to make you. We pay the freight.

BIRD & SON, Established 1795
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MILTON BRICK
Smooth, Hard, Clean-cut.
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Write for Booklet.
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Have You The
MOFFAT COOK BOOK
—the Cook Book that 12,000 Canadian housewives wrote. Mailed post free for 25 cents.
THE MOFFAT STOVE CO., LTD.
Weston Ontario

St. Lawrence Sugar
Buy St. Lawrence Granulated Pure Cane Sugar in original packages, and get pure, clean, perfect sugar

Please mention "The Farmer's Advocate."

Gossip.

The management of the Toronto Fat-stock Show advise that they intend holding a fat-stock show at the Union Stockyards, along same lines as last year's, and that the dates have been set as Dec. 10 and 11, 1915. The premium list will be ready for distribution in about three weeks.

W. A. Dryden, of Brooklin, Ont., writes: "In regard to the young bulls which I offer for sale, three of the lot are sired by Archer's Hope =80017=, and are extra good bulls. They are just a year old this spring, two of them in May, and were rather young to sell earlier in the season. These bulls are of the herd-heading stamp, and reveal the character, flesh and smoothness of their sire. They will be offered at a moderate price, and should go into breeders' hands who realize the value of a good sire, one that should do the work of a real improver. Many of your readers who were at Toronto and London last fall will remember Rare Sort =90497= as the winner of third at Toronto and second at London as a junior yearling. He has been shipped, along with my best senior bull calf, to A. E. Stevenson, Port Huron, Mich. Just a little before this shipment E. L. Robinson, Gowanstown, Ont., secured the red Lord Madge =95843=. Mr. Robinson did not see this bull until he was unloaded at his station, and in acknowledging receipt of the bull, expressed himself as being greatly pleased with the bull that was shipped to him. Messrs. A. & J. Heron, Ashburn, Ont., bought Golden Light =95481=; Roy Ward, Balsam, Ont., secured Lancaster Lord =95837=, and Frank Batty, Brooklin, Ont., bought Lancaster Hope =95836=. W. C. Rosenberger, Tiffin, Ohio, took five young cows and the junior yearling bull Master Jit =95839=. Norman Harrison, Priddis, Alberta, took four heifers and one bull, and James I. Miller, Myrtle, Man., got a good roan thirteen-months-old bull to use this summer, and top the Manitoba Provincial sale next March at Brandon. These buyers all have faith in the blood of Archer's Hope. Besides these sales, I took sixty bulls, all Shorthorns, to Calgary, Alberta, in April, and was fortunate in making a sale of the whole lot to one buyer. It is always a pleasure for me to show my cattle, and if anyone wishing to visit the herd will make an appointment with me I shall be glad to be at home and will make an effort to have their visit enjoyable and profitable whether they buy or not. My Shropshire lambs are growing nicely, and we should have a number of well-grown buck lambs suitable for a limited service this fall."

Questions and Answers. Miscellaneous.

Pig and Ducks Die—Horse Coughs.

1. Castrated boar June 5; apparently all right until June 7, when noticed he was swollen. Died June 9. Could you give me any information how to treat a case of that kind?
2. Have lost a setting of young ducks. They were all right when first hatched, but eyes got sore, kept failing a few days, then died.
2. We keep horses and cows in same stable facing each other, with a feed alley between. Would this arrangement be likely to have any bad effect in either horses or cows? Some people claim that is why we never have healthy calves.
3. Horse six years of age had distemper quite badly. Has recovered from that, but has a slight cough.

L. A. C.

Ans.—1. Occasionally a fatality occurs in hogs from castration, but this is not frequent. Provided the operation was properly performed, and instruments used properly disinfected, about all that could be done would be to keep the pig quiet in a clean place, feed on light, sloppy feed, and bathe the parts in carbolic water.

2. All that we can suggest is that you keep the ducks in a clean, dry place, give plenty of shade and fresh water,

and feed on mash feed, preferably shorts.

3. Provided the stables are clean and well ventilated, it should have no very serious effects. Many stables are so arranged and the stock does well in them. Of course, it is better to have them separate, but this is not always practicable.

4. Take 3 ounces pulverized gum opium, 1 ounce powdered digitalis, 4 drams arsenic acid, 4 ounces powdered liquorice-root. Mix, and make into 24 powders. Give a powder every night in damp food. Repeat the prescription if necessary.

Slow Feathering Chicks.

Please tell me the reason why the Wyandotte chickens do not feather out? I have lost so many this year. When they are about seven weeks old they seem to take a chill and die very quickly. Could I give them anything to help them?

L. J.

Ans.—When chicks have arrived at the age of seven weeks they should not suffer greatly from chills if they are allowed dry quarters in time of rain, and suitable shelter at night. The cockerels may exhibit some slowness in feathering, but that is apparently natural. We do not consider that these chicks are in any way abnormal in their feathering, and would be inclined to think that there is something wrong in other directions. Plenty of wholesome feed and suitable shelter are the chief factors in successful chick raising. Remove any chicks that do not appear perfectly healthy, and if possible allow the others the run of a yard that is fresh, and where poultry has not been confined previously. If the chicks are not with a hen or in a brooder at night, prepare a hover for them to keep them warm, but do not make it too small. We are inclined to think there is nothing wrong with the feathering of the chicks.

Veterinary.

Retention of Afterbirth.

Cow calved on February 23 and retained the afterbirth for ten days. She is very poor, and has not shown oestrus.

J. M. H.

Ans.—She is suffering from a form of blood poisoning, caused by absorption of some of the decomposed afterbirth. Mix equal parts powdered sulphate of iron, gentian, ginger, and nuxvomica. Mix a tablespoonful of this with 1½ pints cold water, add to it 50 drops carbolic acid, and give as a drench three times daily. When she improves in health and strength oestrus will no doubt appear.

V.

Fatality in Cattle.

Heifer appeared all right at noon. About 2 p. m. she began to run around in circles and froth from her mouth, and died about 3 p. m. Next day another acted the same way. It was all right at night, and next morning was acting the same as the first one, and soon died. Post-mortems revealed the fourth stomach black. It seemed to be burned; the lining membrane would all peel off. The small intestine also was black, with inflammation. There were three other cattle with these, and one of them seems to be affected.

F. W. A.

Ans.—The symptoms and post-mortems indicate acute inflammation of the fourth stomach and small intestines. Treatment in such cases is practically of little avail. It consists in giving large doses of opium, from one to two drams, according to size of patients, every four hours. The trouble may be caused by some irritant in the pasture. The sudden deaths indicate anthrax, but the post-mortems described do not. It will be wise to have a veterinarian hold a post-mortem and investigate the cause if you have further trouble.

V.

A certain little girl was discovered by her mother engaged in a spirited encounter with a small friend, who had got considerably worsted in the engagement.

"Don't you know, dear," said the mother, "that it is very wicked to behave so? It was Satan that put it into your head to pull Elsie's hair."

"Well, perhaps it was," the child admitted, "but kicking her shins was my own idea."

Deafness

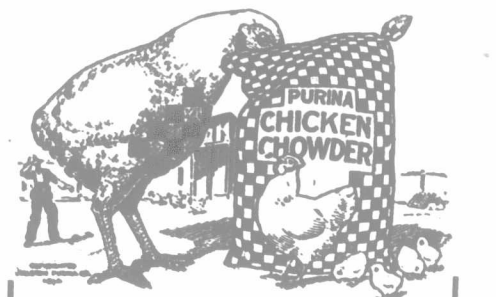
From All Causes, Head Noises and Other Ear Troubles Easily and Permanently Relieved!



Thousands who were formerly deaf, now hear distinctly every sound—even whispers do not escape them. Their life of loneliness has ended and all is now joy and sunshine. The impaired or lacking portions of their ear drums have been reinforced by simple little devices, scientifically constructed for that special purpose.

Wilson Common-Sense Ear Drums often called "Little Wireless Phones for the Ears" are restoring perfect hearing in every condition of deafness or defective hearing from causes such as Catarrhal Deafness, Relaxed or Sunken Drums, Thickened Drums, Roaring and Hissing Sounds, Perforated, Wholly or Partially Destroyed Drums, Discharge from Ears, etc. No matter what the cause or how long standing it is, testimonials received show marvelous results. Common-Sense Drums strengthen the nerves of the ears and concentrate the sound waves on one point of the natural drums, thus successfully restoring perfect hearing where medical skill even fails to help. They are made of soft, sensitized material, comfortable and safe to wear. They are easily adjusted by the wearer and out of sight when worn.

What has done so much for thousands of others will help you. Don't delay. Write today for our FREE 168 page Book on Deafness—giving you full particulars. **WILSON EAR DRUM CO.,** Incorporated, 231 Water-Southern Bldg., LOUISVILLE, KY.



Purina Chick Feed
With Purina Chicken Chowder will keep your chicks busy and happy.
At your dealers.
Always in Checkerboard Bags.
The Chisholm Milling Co., Limited
Dept. A., Toronto

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at three cents 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. No advertisements inserted for less than 50 cents.

ENTIRE stock White Rocks, 2 males, 7 females; prizewinners. A real snap. Must be sold. E. H. Mundy, Bridgen, Ont.

WHITE Orpington baby chicks, 25c., 35c., 50c. each. Eggs \$1, \$2, \$3 per 15. Best strains Rev. W. J. Hall, Newmarket, Ont.

Eggs for Hatching—S.-C. White Leghorns, bred from heavy-laying and prizewinning stock, 75c. per 15 a hatch, guaranteed. \$4 per 100. GEO. D. FLETCHER, Erin, R.R. No. 1

WANTED

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

TERMS—Three cents 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 50 cents.

OXFORD County Farm for Sale—Hundred acres known as the John Spearman Homestead; five miles west of Ingersoll, on the River Road. Two houses, bank barn, windmill; plenty of water. Ida M. Spearman, Mt. Clemens, Mich., R. R. 5.

WANTED—A good girl for country residence near Paris; household duties only. Miss E. J. Clump, Paris, Ont., R.R. No. 1.

CREAM WANTED

We meet any competition for GOOD QUALITY CREAM. We have the experience, the capital, and the market connection in the largest city in the Province. Prompt remittance. Cans supplied. Charges paid. References: Any shipper or any banker. It will be worth your while to ship us.

TORONTO CREAMERY CO., LIMITED
Toronto, Ontario

EXCELLENT STOCK FARM FOR SALE
15 miles from Hamilton. 160 acres, large barn, good drive sheds, brick cottage, frame house for hired man. Gas on farm. Apply:
Box H., Farmer's Advocate, London

PLAYTIME

THE PLAYTIME is the BEST washing machine for the farm house. A strong statement but a FACT. It works Easily, Quickly and Perfectly under all conditions. Can be run by Gas, Gasoline, Steam Engine or Windmill power, or operated by hand with little effort. Very strong, will last a lifetime. See it at your dealers or write us direct.


Cummer-Dowswell Limited
Hamilton, Ont.
16-14



MADE IN CANADA.



The Secret of Good Butter is Windsor Dairy Salt
it's Made in Canada



PRESIDENT SUSPENDER
NONE-SO-EASY
MADE IN CANADA

SHIP US YOUR

CREAM

We supply cans and pay all express charges within a radius of 100 miles of Berlin. Send a statement of each shipment. Pay every two weeks.

WRITE FOR FULL PARTICULARS.

The Berlin Creamery Co.
Berlin, Canada

Running Water On Every Floor!

Write us to-day for particulars of the EMPIRE WATER SUPPLY SYSTEM for country homes. Durable, efficient, no trouble to operate, costs little. We make hand, windmill, gasoline, and electric outfits.

EMPIRE MFG. CO., LIMITED
1200 Dundas Street, London, Ontario

Mention The Advocate

Better Marketing of Wool.

In our issue of June 10 some reference was made to the manner in which wool is sold for the growers by the Department of Agriculture in Manitoba. Fuller particulars have recently been published in "The Farmer's Advocate and Home Journal" of Winnipeg, Man., and may interest our readers.

"The Department has now completed arrangements for handling the wool clip of the province on a co-operative basis, and is prepared to receive shipments of wool at any time up to July 1.

"The Department, acting as agents for the farmers, will receive the wool delivered in Winnipeg, where it will be weighed, sorted and graded, under the supervision of expert wool-graders sent out by the Federal Department of Agriculture. The wool will then be sold on grade for the highest obtainable price. It is, of course, impossible now to state what that price will be, as that depends upon the prevailing markets, the quality of the wool, and, to some extent, the quantity to be disposed of.

"Last year the Manitoba Sheep Breeders' Association handled over 30,000 pounds of wool for its members, paying 19½ cents per pound.

"The Department is prepared to make a cash advance on receipts of wool up to two-thirds of the local market price, the balance to be paid as soon as final settlements are received. The Department will retain one cent a pound to provide for contingencies. Each shipment will be weighed, graded, and paid for according to quality. All shipments should be prepaid, but where there is no station agent, the freight will be paid on delivery and deducted when making settlement. Wool sacks, holding 200 to 240 pounds, can be supplied at 65 cents each.

"Shearing—Shearing should be done on a smooth floor, never in the dirt, and the fleeces should be kept as compact as possible. Before rolling fleeces, they should be lightly shaken to remove all loose dirt and double-cut fibres. All heavy tags or badly discolored locks should be removed. The fleece should then be spread on the floor or table with the skin side down. The outside edges are then folded over the center line of the back and the one-half of fleece again folded over to the other. Commencing at the tail, roll the fleece as compactly as possible to the neck.

"Tying—In the coarser grades of fleeces the neck wool may be twisted and drawn into a band, which is wrapped around the fleece and tucked in securely to hold the bundle together. With shorter grades this cannot be done, and it is necessary to tie with twine. Never use binder or sisal twine for this purpose, as the fibres adhere to the wool, greatly reducing its value. If possible, use the regular paper twine, but if this is not available use any strong, hard, smooth-finish twine, wrapping at least once each way and tying securely in a square knot. When properly rolled and tied, the bright side of fleeces will be on the outside of bundle.

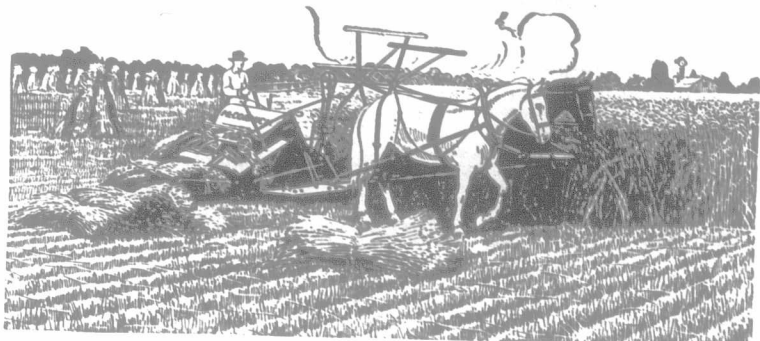
"Packing—The wool should be packed in a very clean, closely-woven jute, hemp or paper-lined sack, which will be supplied at cost. In shipping small quantities, ordinary jute sacks may be used. They should be clean, and turned inside out to avoid getting the loose fibres along the seams mixed with the wool. When full, the sacks should be sewn with smooth, hard twine.

"Shipping—Addressed shipping tags will be forwarded each consignee to be filled in, giving actual weights in each lot. Use two tags for each sack; tie one to fleece inside, and securely fasten one tag to outside of each sack.

"The wool should be absolutely dry at shearing, and should never subsequently be permitted to become wet. Damp wool in a storage will ultimately assume a yellow color, which will prohibit its use in the manufacturing of white yarn. Mildew may attack it, which impairs the tensile strength of the fibre. Manufacturers greatly dislike wet wool, and prefer not to purchase except at a considerable reduction. The wool must be shipped before July 1, addressed to the Provincial Department of Agriculture and Immigration."

These are the rules which apply in Manitoba, and they should serve to give Eastern sheepmen some ideas on the better marketing of wool.

McCormick Binders



PRACTICAL farmers who know what harvesting difficulties must be overcome in Eastern Canadian fields, urge the use of the McCormick binder. Ask them. You will find the McCormick has an unusual number of good, strong points that insure a complete a harvest as it is possible to get, even under worst field and grain conditions.

For Eastern Canadian fields the McCormick binder is built with a floating elevator which handles varying quantities of grain with equal facility. The binder guards are level with the bottom of the platform so that when the machine is tilted to cut close to the ground there is no ledge to catch stones and trash and push them ahead of the binder to clog the machine. These and other features you will appreciate.

Look for the same high-grade workmanship, the same famous I H C quality, in McCormick twine and in McCormick mowers as well as binders. Make the most of your crops. See the agent for catalogues and full information, or, write the nearest branch house.



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At Brandon, Calgary, Edmonton, Estevan, Hamilton, Lethbridge, London, Montreal, N. Battleford, Ottawa, Quebec, Regina, Saskatoon, St. John, Winnipeg, Yorkton

So pleasing! So artistic! So sanitary!

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If you once saw how handsome, how rich, these Metallic Steel Plates look, and knew how low-priced they are and how easy to put up, you would certainly think of a room where you wanted them at once. "Metallic" designs are up-to-date, sharply embossed and highly artistic.

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For full information as to terms, regulations and settlers' rates, write to:

H. A. MACDONELL, Director of Colonization
HON. JAS. S. DUFF, Minister of Agriculture
Parliament Buildings, TORONTO, ONT. Parliament Buildings, TORONTO, ONT.


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SAVE-THI-HORSE
(Trade-Mark, Registered)


Put Horse to Work and Cure Him
EVERY BOTTLE of Save-the-Horse is sold with signed Contract—
Send to Return Money if Remedy fails on Ringbone, Thorough-
—SPAVIN— or ANY Shoulder, Knee, Ankle, Hoof or Tendons
Disease. No blistering or loss of hair. 19 Years a Success.
Write to-day, 50¢, Sample Contract and ADVICE—
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Druggists Everywhere sell Save-the-Horse with CON-
TRACT, or we send by Parcel Post or Express paid

Horse Owners! Use
COMBAULT'S
Caustic
Balsam
A Safe, Speedy, and Positive Cure



The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blenishes from Horses and Cattle, SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or Blenish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. The Lawrence-Williams Co., Toronto, Ont.

Ring-
Bone



There is no case so old or bad that we will not guarantee
Fleming's
Spavin and Ringbone Paste
to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and only three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blenish, write for a free copy of
Fleming's Vest Pocket
Veterinary Adviser
Ninety-six pages of veterinary information, with special attention to the treatment of blenishes. Durable, bound, indexed and illustrated. Make a right beginning by sending for this book.
FLEMING BROS., Chemists
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Dr. Page's English Spavin Cure
Cures the lameness from Bone-Spavins, Side-Bones, Ringbones, Curbs, Splints, etc., and absorbs the bunches, does not kill the hair, absorbs Capped Hocks, Bog-spavins thick pastern joints, cures lameness in tendons, most powerful absorbent known, guaranteed, or money refunded. Mailed to any address, price \$1.00. Canadian Agents: J. A. JOHNSTON & CO., Druggists, 171 King St., East Toronto, Ont.



The Bissell Steel Stone Boat
Built of stiff steel plate with railing around the edges and steel runners underneath. 2 ft., 2½ and 3 ft. wide and different styles for all kinds of farm work. Write Dept. W for folder and prices.
T. E. BISSELL CO., Limited, Elora, Ont.



Dr. Bell's Veterinary Medical Wonder. 10,000 \$1.00 bottles to horsemen who will give the Wonder a fair trial. Guaranteed for Inflammation of the Lungs, Bowels, Kidneys, Fevers, Distemper, etc. Send 10 cents for mailing, packing, etc. Agents wanted. Write address plainly
Dr. Bell, V.S., Kingston, Ontario

Maxwellton Farm, St. Anne de Bellevue, Que.
Imported Percheron Stallion
Five Year
First prize Montreal Horse Show and Williamstown, Ont. Also several younger registered Stallions and Jerseys. All highest grade.

Clydesdales and Shorthorns. Young stallions of superior quality. Certain winners at the big shows. Young bulls and some heifers bred from cows milking up to 52 lbs. a day. Come and see them.
PETER CHRISTIE & SON,
Manchester P.O., Ont. Port Perry: Station

Angus Cattle For Sale—Nice young stock of both sexes with good breeding and individual quality.
J. W. BURT & SONS,
R. R. NO. 1, HILLSBURG, ONT.

4 CLYDESDALE MARES
4 Clydesdale mares for sale—bargains.
Sidney Aker R.R. No. 2 St. Williams, Ont.
Please mention "The Farmer's Advocate."

Questions and Answers.
Veterinary.

Stiff Cow.
Cow apparently well is very stiff in fore-legs. The stiffness apparently extending to her breast. She has failed considerably in yield of milk.

H. M.
Ans.—The symptoms indicate rheumatism. This is often caused by cold and damp, lying on cold or damp floors, etc., but frequently occurs without appreciable cause. Keep her dry and comfortable, feed on laxative food, give her 2 drams salicylic acid 3 times daily. Bathe the joints of the legs well 3 times daily with hot water, and after bathing rub well with hot camphorated oil. V.

Spaying—Fatality in Horse.
1. When is the best time to spay a female dog and how is the operation performed?
2. My horse died suddenly. He was very quiet, did not show symptoms of pain. Pulse was imperceptible. He fell down and died without a struggle.

H. C.
Ans.—1. At 6 to 9 months of age. The animal should be anaesthetised by chloriform, and placed on a table with hind quarters elevated. All instruments, hands of operator and seat of incision thoroughly disinfected by a 5 per cent. solution of carbolic acid or other disinfectant. An incision is made in the median line of the abdomen between the first and second teats, exposing the contents of the pelvis. The uterus being located, each horn is followed upwards and the ovaries located and removed by an emasculator. Most operators now remove the horns of the uterus also. Then the muscles are sutured with carbolyzed silk suture and the skin then sutured with the same and the patient allowed to recover from the anaesthetic and kept in a thoroughly clean place and fed lightly until the wound heals. The operation cannot be performed by an amateur.
2. It would have required a careful post mortem by a veterinarian to determine the cause of death. The symptoms you give are those usually seen during the latter stages of acute disease, after the sense of pain has disappeared. No doubt this horse had experienced acute pain, but that stage had passed before you noticed him, and without particulars of the symptoms shown in the earlier stages or the holding of a post mortem it is not possible to diagnose. V.

Miscellaneous.

Obstruction in Teat.
I have a valuable cow which has developed a little lump about the center of one of her teats. By putting the siphon in just a little way the milk runs freely. There is no fever, and the soreness seems to be leaving. The cow is on grass, and I have taken away her chop and she is doing fine, but has slackened some in her milk. Is there anything I can do to drive away this lump? As I said before, I cannot milk by hand, but the siphon takes it out. What is the cause of it, and treatment?
E. A. S.

Ans.—Usually such obstructions can only be removed by an operation. Sometimes a slit is made and the growth removed, while in some cases the veterinarian will use teat-bistouries of different designs. In the majority of cases it is more profitable to allow the cow to go dry and fit her for the block, as the predisposition to such growths is hereditary, and her heifer calves may experience the same troubles. Without an operation the cow will probably continue to give trouble, and unless valuable as a breeder it might be well to dispose of her.

Dr. Lyman Abbott, the anti-suffragist, said at an anti-suffrage tea in New York:

"They call woman the weaker sex. Yet I have known more than one woman to bend a man's will during his life and break it after his death."

SYDNEY
BASIC SLAG

D OUBTLESS you intend putting in an increased acreage of fall wheat this season. To get the biggest possible yield per acre you must use fertilizer, and the fertilizer that gives the best results at the lowest expenditure is

SYDNEY BASIC SLAG

Write us at once, and we will get our representative to call and give you the names of Ontario farmers who have grown record crops of fall wheat with the aid of **Sydney Basic Slag**. We make money by helping you to make more money, and it will not cost you anything to have our representative call on you. We want agents where we are not already represented, and if you are the means of introducing **Basic Slag** into your district you will be conferring a benefit on your neighbors, and there will be a reasonable remuneration in the business for your trouble.

The Cross Fertilizer Company, Limited
SYDNEY, NOVA SCOTIA

Clydesdales That Are Clydesdales

Three, four and five years of age, prize-winners and champions at Ottawa and Guelph, up to 2,100 lbs. in weight, with the highest quality and choicest breeding. When buying a stallion get the best, we have them; also several big, well bred, tried and proven sires from 7 to 12 years of age, cheap.



SMITH & RICHARDSON, COLUMBUS, ONTARIO

Imp.—Clydesdales, Stallions and Fillies—Imp.



We have had lately landed, an exceptionally choice importation of Stallions and Fillies. They have the big size, the clean, flat quality bone and the most fashionable breeding. Our prices are consistent with the times.

JOHN A. BOAG & SON, QUEENSVILLE, ONTARIO


JUST LANDED **CLYDESDALE STALLIONS** **JUST LANDED**
I have just landed a new importation of Clydesdale stallions, in ages from 3 years up to the big, drafty kind that makes the money. I can satisfy any buyer no matter what the wants; a visit will convince.
WM. COLQUHOUN, Mitchell, Ont.

CLYDESDALES Imported and Canadian-bred. With over 25 head to select from. I can supply, in either imported or Canadian-bred, brood mares, fillies, stallions and colts. Let me know your wants.
R. B. PINKERTON, ESSEX, ONT.
Long-Distance Telephone

FAIRY MOUNT HEREFORDS
Sired by my Toronto and London Canadian Bred Champion. I have for sale several young bulls from 7 to 24 months of age, Toronto and London winners among them, the low thick kind, an exceptionally choice lot.
G. E. REYNOLDS, R.R. No. 2, ELORA, ONTARIO.



Northlynd R.O.P. Shorthorns and Jerseys
For Sale—Our noted sire of big milkers, St. Clair=84578—a Clara-bred son of Waverley. Several of his sons out of R.O.P. dams; also Shorthorns and Jersey females. Official records is our specialty.
G. A. JACKSON, DOWNSVIEW, P. O., WESTON STATION.

SHORTHORNS Pure Scotch and Scotch topped. Also five (5) young bulls from ten to twenty months old, of the low down, thick kind, good colors, reds and roans. Prices reasonable.
G. E. MORDEN & SON, OAKVILLE, ONTARIO



Willow Bank Stock Farm Shorthorns and Leicester Sheep. Herd established 1855; flock 1848. The imported Cruickshank Butterfly Roan Chief=60865= heads the herd. Young stock of both sexes to offer. Also an extra good lot of Leicester sheep of either sex; some from imported sires and dams.
James Douglas, Caledonia, Ont.



Maple Grange Shorthorns Pure Scotch and Scotch-topped. Breeding unsurpassed. A nice selection in young bulls, and a limited number of thick, mossy heifers.
R. J. DOYLE, Owen Sound, Ontario



SHORTHORNS of breeding style and quality. Present offering: some extra fine young bulls from good dams and heavy milkers, and we have decided to sell the old bull Mildred's Royal. Heifers about all sold.
Geo. Gier & Son, R. R. No. 1 Waldemar, Ontario



Billy Sunday Says:
 "If I should die to-night, that which would give me the most comfort, next to my faith, would be the knowledge that I have in a safety deposit vault in Chicago life insurance papers paid for up to date and my wife could cash them in and she and the babies could listen without fear to the wolves' howl for a good many years."
 Billy hits the nail squarely on the head. Nothing tends to produce quietness and confidence like a life or endowment policy, especially if in a good, strong company with Assets of nearly twenty-five millions and Surplus of nearly four millions, such as
THE MUTUAL LIFE ASSURANCE COMPANY OF CANADA
 WATERLOO, ONTARIO

BEST ON EARTH
 WATCH FOR THE TRADE MARK AND KNOW WHAT YOU GET
FREEMAN'S FERTILIZERS
 A SPECIAL FORMULA FOR EVERY REQUIREMENT.
 Do not buy a "A Pig in a Poke."
 Send for booklet showing just what Fertilizer you should use and the exact composition of it. Your copy will be sent for a post card.
The W. A. FREEMAN CO., Ltd.
 222 HUNTER ST. E. HAMILTON, ONTARIO.

SHORTHORNS
 Present offering—20 cows and heifers and a few extra choice young bulls; they are bred so that they will produce money makers in the dairy and steers that will be market toppers and their prices are so low it will pay you to buy. Come and see them.
Stewart M. Graham - Lindsay, Ont.

Spring Valley Shorthorns
 Herd headed by the two great breeding bulls Newton Ringleader (Imp.) 73783, and Nonpariel Ramsden 83422. Can supply a few of either sex.
KYLE BROS., DRUMBO, ONTARIO
 Phone and Telegraph via Ayr.

Oakland-60-Shorthorns
 A great herd of dual-purpose always headed by selected bulls of the good kind. Present offering is 8 choice bulls from 8 to 14 months, also females. No big prices.
John Elder & Son, Hensall, Ontario

SHORTHORNS
 Three bulls, 21 months, a number of younger cows with their calves, cows in calf and yearling heifers for sale. Good individuals. Good Pedigrees. Inspection solicited.
J. T. GIBSON :: DENFIELD, ONT.

6 SHORTHORN BULLS
 25 females, reds and roans, serviceable, best type and quality, size; cows milking up to 50 lbs. Prices easy.
Thomas Graham, R.R. No. 3, Port Perry, Ont.

FLETCHER'S SHORTHORNS
 Present offering 3 choice roan bulls fit for service. High-class herd headers, and females in calf.
Geo. D. Fletcher, Erin, R.R. No. 1
 L.D. Phone. Erin Sta., C.P.R.

3 Shorthorn Bulls for Sale—One white show bull 17 mos. old; price \$125. One choice red bull 16 mos. old, and one roan show bull 13 mos. old. Breeding of the best. Prices easy. Write us at once.
JOHN McLEAN, & SON, - Rodney, Ont.

Shorthorns and Swine—Have some choice young bulls for sale; also cows and heifers of show material, some with calves at foot. Also choice Yorkshire sows.
ANDREW GROFF, R.R. No. 1, ELORA, ONT.

Please mention "The Farmer's Advocate."

Questions and Answers. Miscellaneous.

A Weed Not Harmful.

Kindly let me know the name of weed enclosed. Cows are very fond of it; will it harm them? We have a lot of it.
 W. S.

Ans.—This is a young plant, or branch of one of the Oraches. We cannot say which one without a more developed specimen. They are a group of plants that favor seashores or saline lands. One of them, sometimes called Mountain Spinach and Garden Orache, is grown in gardens as a pot-herb. As food, they will not injure humans or cattle. J. D.

Stocking.

Would you kindly let me know, through the pages of your valuable paper, the best treatment for stocking in the right hind leg of a registered Clydesdale mare? She was running on pasture when I bought her. After keeping her in the stable a few days her leg swelled up about twice its natural size.
 W. F.

Ans.—Some horses are predisposed to this trouble. Those having meaty legs and coarse and lacking in quality, very often show this trouble. Turn the mare out to grass, or give her regular exercise at work. Give a purgative of from 6 to 10 drams aloes and 2 drams ginger. After the bowels have regained their normal condition, give a dessertspoonful of saltpetre once daily for three or four days to act on the kidneys. Hand rub the legs, and, as stated, get the mare out to grass. If this is not practicable, feed rolled oats and bran.

A Refractory School Garden.

The soil in our school garden is fairly productive, but it is very troublesome on account of its cracking after every rain. It bakes, and has to be worked over at once. Can anything be done to prevent this undesirable condition?
 R. G.

Ans.—Under drainage and more humus are the chief requirements of the soil. If there is an outlet handy, it would no doubt pay to put in a couple of tile drains and drain the land thoroughly. Under ordinary field conditions, one could probably improve the texture of the soil by plowing down clovers or green crops of some kind. However, in a school garden it is probable that plenty of manure is the most practical way of improving the condition of the soil. With plenty of under-drainage and sufficient humus in the land, the cracking and baking can be overcome to a large extent.

Conditions of Lease-Trouble Over Holiday.

A rents a farm from B for one year, and at the time of agreement B said that he might sell at any time, but no mention was made to that effect when the indenture was signed. About two months after signing indenture, B sells to C.

1. Had B any right to sell till expiration of lease?
2. If so, has C any right to interfere with anything A does on the said farm, or to cancel any verbal agreement made between A and B?
3. Is A responsible to B or to C for rent, or anything connected with said lease?
4. A hires to B for eight months, from April 1, for \$180. On the 24th of May, A said he was taking the holiday, so B told him if he did so he could leave, as he would not have him back again. A went back next day, when B would only pay him for the time he had worked, at the rate of \$20 per month. Could B do that, or was A entitled to anything more than that?
 W. C.

Ans.—1. Yes. B can sell the place, subject to the conditions of the lease.

2. Verbal agreements do not amount to very much in such a case. The agreement as drawn up in the document agreed to by A and B must be the guide. When C buys the farm he is the owner, and can probably dictate to some extent.

3. A is responsible to C.
4. May 24 is a legal holiday, and A is entitled to it. B cannot lawfully discharge A for not working on that day if there is no other agreement between A and B than that explained in the query. It appears that A should have at least his monthly rate when B is the first to break the contract.

CONVENIENT—Burns coal, coke, or wood. Large feed doors make firing easy.

McClary's Sunshine Furnace
 Water pan is 'filled without removing.
 See the McClary dealer or write for booklet.

MAPLE SHADE SHORTHORNS

Four young bulls of serviceable age for sale. Priced from \$125.00 up.
WILL A. DRYDEN, - BROOKLIN, ONT.
 Brooklin, G.T.R. and C.N.R.

The Auld Herd
 Our Herd consists of the following families: Orange Blossoms, Missie, Broadhooks, Rosebud, Secret, Victoria, Cecilia and is headed by—
Sylvian Power Burnbrae Sultan
Bandsman Commander Broadhooks Ringleader
 Our address has been changed to:—
A. F. & G. AULD, R.R. No. 2, GUELPH, ONT.

Robt. Miller Still Pays The Freight

And in addition he can furnish great, strong, thick fleshed Shorthorn bulls at a price that will surprise you. Many of them bred to head good herds and improve them. Many of them of a kind to get good feeders and great milkers, and all of them low down, thick and smooth with good heads and horns, that will grow into big weights and bring more money in the market than you are asked for them now. Some high-class heifers for sale too. Write for what you want.
ROBERT MILLER, STOUFFVILLE, ONTARIO

Meadow Lawn Shorthorns—Five Scotch bulls, 16 months old, from good milking dams. Low-set, thick, deep, well formed, growthy fellows, showing breeding, quality and scap. You are invited to inspect this offering.
F. W. EWING, ELORA, R.R. No. 1
 Bell Telephone. G. T. R. and C. P. R.

Janefield Dairy Shorthorns—R.O.P. cows and dairy test winners combined with the best of blood. Many cows weigh 1,500 lbs. and giving over 10,000 lbs. milk per year. Whole herd test over 4% butter-fat. Guelph and Ottawa Winter Fair dairy test winners. Cows in calf to Darlington Major (Imp.) 91270 (114994) and Braemar Victor 98751. Both purely-bred dairy bulls. Young cows and heifers for sale. W. J. BEATY, Janefield, 1 mile from Guelph, Guelph P.O.

Escana Farm Shorthorns—100 head in the herd, which is headed by the noted bulls, Right Sort, Imp., the sire of the first-prize calf herd at 1914 Toronto National Show and Raphael, Imp., grand champion at London Western Fair, 1913. For sale, 20 bull calves, 9 to 14 months old, several in show form, also 20 cows and heifers.
Mitchell Bros., Props., Burlington P.O., Ont.
JOS. McCRUDDEN, Manager
 Farm 1/2 mile from Burlington Jct.

SALEM STOCK FARM HOME OF THE CHAMPIONS
 Many of our Shorthorn bulls are good enough to head the best herds. Others big and growthy that will sire the best kind of steers. Elora is only thirteen miles from Guelph. Three trains daily each way.
J. A. WATT, - ELORA, ONTARIO

GLENGOW SHORTHORNS
 For this season's trade we have the best lot of young bulls we ever bred. Wedding Gifts, Strathallans, Crimson Flowers and Kiblean Beautys, sired by Broadhooks Prime. These are a thick, mellow, well-bred lot. Heifers from calves up.
WM. SMITH & SON, COLUMBUS, ONTARIO

Blairgowrie Shorthorns
 Having bought out two Shorthorn herds puts me in a position to have cattle suitable in breeding and ages for all who want to buy. Cows, heifers and bulls all fashionable bred.
JNO. MILLER - C.P.R. and G.T.R. - ASHBURN, ONT.

Scotch—SHORTHORNS—English If you want a thick, even fleshed heifer for either show or breeding purposes, or young cows with calves at foot, or a thick, mellow, beautifully-fleshed young bull, or a right good milker bred to produce milk; remember I can surely supply your wants. Come and see.
A. J. HOWDEN Myrtle, C.P.R.; Brooklin, G.T.R. COLUMBUS, P.O., ONT.

Shorthorns and Clydesdales Bulls of serviceable age all sold; have some good ones a year old in September, and are offering females of all ages. Have a choice lot of heifers bred to Clansman—87800—. Also four choice fillies, all from imported stock.
L.-D. Phone. A. B. & T. W. DOUGLAS, Strathroy, Ont.

Shorthorns and Clydesdales—We have five young bulls of serviceable age that we will sell at moderate prices. In Clydesdales, we have eight imported mares with foals. We can spare some of these and will sell them worth the money or would consider some good Shorthorn females in exchange. We also have a two-year-old stallion and a pair of good yearling fillies.
Station: Burlington Jct., G. T. R. J. A. & H. M. PETTIT, (formerly W. G. Pettit & Sons), FREEMAN, ONT. Phone Burlington

H. SMITH, - HAY P.O., ONT.
 12 SHORTHORN BULLS and as many heifers for sale. Write your wants. You know the Harry Smith Standard.

"Thistle Ha" Herd of Scotch Shorthorns. The oldest estab. herd in Canada is now offering for sale 10 young bulls from 10 to 18 months old. Some good enough to head the best pure bred herds and some suitable to get choice steers. All at very reasonable prices.
JOHN MILLER, CLAREMONT, ONT. Claremont Stn., C.P.R., 3 miles. Pickering Station, G.T.R., 7 miles Greenburn Stn., C.N.R., 4 miles.

Belmont Farm Shorthorns Herd headed by Nero of Cluny (imp.) and Sunnyside Marquis. For sale—a number of young bulls and heifers, also young cows sired by Missie Marquis, with calves at foot.
F. W. SMITH & SON, R. R. NO. 2, SCOTLAND, ONTARIO
 Long-Distance Telephone

15 ⁹⁵ **ON TRIAL**

AMERICAN CREAM SEPARATOR

A GOLD PROPOSER: to read fully guaranteed, a new, well made, easy running, perfect creaming separator for 5 GALS. Skims cream or cold milk; makes heavy or light cream. ABSOLUTELY ON APPROVAL.

The brand is a quality mark, easily checked. Different from this picture, which illustrates our larger capacity machines. Shipments made promptly from WINNIPEG, MANITOBA, TORONTO, ONT., and ST. JOHN, N. B. Whether your dairy is large or small, write for our handbooks from catalog. Address: AMERICAN SEPARATOR CO. 50X 5200 Bainbridge, N. Y.



Cotton Seed Meal
LINSEED MEAL
CALF MEAL
POULTRY FOODS, etc.

Write for prices.

H. FRALEIGH, Box 2, Forest, Ont.

AN EVEN BALANCE

It takes 300 lbs. of BRAN to supply as much PROTEIN as is contained in 100 lbs. of

"GOOD LUCK" BRAND COTTON SEED MEAL

For Prices and Feeding Directions write to

CRAMPSEY & KELLY

100 LBS. OF BRAN FARGEST IMPORTERS OF COTTON SEED MEAL IN CANADA



\$19 Per Set Delivered to Nearest Railroad Station in Ontario

28-inch and 32-inch diameter, 4-inch by 1/2-inch tire, grooved or plain, made to fit any axle.

Write for Catalogue.

NORMAN S. KNOX

47 Wellington St. East, Toronto, Ont.



HOLSTEIN BULLS

Twelve months and under from R.O.P. and R.O.M. cows and by such sires as "King Segis Pontiac Duplicate" and "King Fayne Segis Clothide." Settings of Indian Runner Ducks \$1.50 per setting.

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R. R. No. 4, Port Perry, Ontario

There is a Vast Difference Between Keeping **HOLSTEINS** and just keeping cows. ONE GOOD HOLSTEIN COW WILL DO THE WORK OF TWO OR THREE ORDINARY COWS. You save in feed, housing, risk and labor. Holstein cows milk longer, more per year, and more per life than any other breed. There's money for you in Holsteins.

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If you are in need of a bull to improve your dairy herd, and want one that you can feel proud of, then get a son of the great King Lyons Hengerveld.—You can buy him right.

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The Maples Holstein Herd

Offers bull calves from sisters of Calamity Snow Mechtildie, at 2 years 15,000 lbs. milk, 722 lbs. butter; R. O. P. 24.45 lbs. butter 7 days at 3 years. All calves sired by Canary Hartog. Two nearest dams 29.89 lbs. butter 7 days, two granddams average 115 lbs. milk in one day. Write: Walburn Rivers, R. R. No. 5, Ingersoll, Ont.

RIDGEDALE HOLSTEINS For Sale. One bull calf ready for service, and 3 young bulls, one of them sired by King Segis Pontiac Duplicate; also 2 young cows. Prices low for quick sale. **R. W. Walker & Sons, R.R. No. 4, Port Perry, Ont.** Manchester, G.T.R.; Myrtle, C.P.R. Bell Phone

THE FAIRVIEW HOLSTEIN HERD offers ready-for-service sons of Homestead Colantha Price—3 nearest dams average over twenty-nine pounds of butter a week; also daughters from one week to two years old. Prices right. **FRED ABBOTT, MOSSLEY, ONT., R.R. No. 1**

Please mention "The Farmer's Advocate."

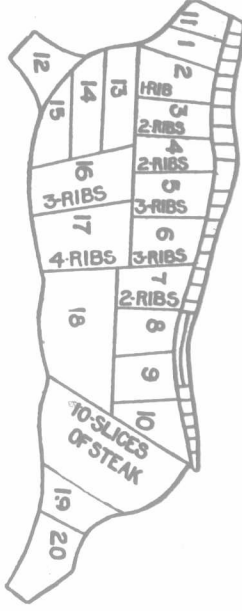
Questions and Answers.
Miscellaneous.

Cutworms Destroying Garden.

Will you kindly advise me, through your interesting paper, how to successfully combat cutworms. In my garden plot I have planted corn, melons, cucumbers, and cauliflower. These the worm persists in destroying. The melons I have replanted three times. R. L. J.

Ans.—In these columns a query is answered re "Cutworms Destroying Oat Field." The mixture of poisoned bran described there is more applicable to garden conditions. Smaller quantities, but in the proportion of 1 lb. of Paris green to 100 lbs. of bran, will do. There is danger to fowl when this mixture is spread.

20-share Beef-ring Chart.
 Would you please give us a twenty-share beef-ring chart, through your paper? W. J. M.



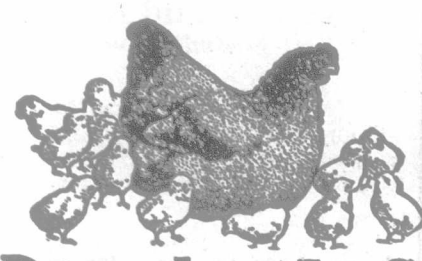
Ans.—Herewith we publish the desired chart.

Fertilizer for Wheat.
 I have a field that I sowed with grass seed last spring, and I find now that it is not going to be worth leaving. I would plow it up and sow wheat, but we have no manure to put on it, as all the manure went on summer fallow. Now, what about buying fertilizer? I never used any, and therefore do not know anything about it.

1. What do you think of fertilizer? Is it equal to barn-yard manure?
2. Is it only good for one crop?
3. Would it pay to buy fertilizer to put on land to grow wheat at \$1 per bushel?
4. What would be the cost per acre?
5. Where is the best place to get it?
6. How much should be put on per acre to be equal to a coat of manure?
7. How do you apply it? Can it be put on with seed drill?

Ans.—1. This is a difficult question. There are so many fertilizers and so many different conditions. A great deal depends upon the needs of the particular soil and the crop. With general farm crops on an average farm, nothing beats clover and barn-yard manure. However, there are cases where artificial fertilizers may be used to advantage, and yours may be one of them.

2. This depends somewhat on the material used, but a complete fertilizer will influence more than one crop.
3. Under certain conditions it might.
4. Possibly from \$5 to \$10 per acre, according to application and material used.
5. Many firms advertise in these columns.
6. This we cannot say. A good dressing would be 80 lbs. nitrate of soda, 250 lbs. acid phosphate, and 70 lbs. muriate of potash. The last named would be hard to get. Firms advertising ready-mixed fertilizer could give you figures and particulars about their particular brands.
7. Broadcast by hand, or with a fertilizer drill. Do not use grain drill.



Poultry Profits

Depend on the Condition of Your Hens

Poultry Profits increase as fast as the care of poultry is better understood. Health is known to be the prime requisite for successful layers and broilers. Roup, Diarrhoea, Scaly Leg, Cholera, Gapes, Pip, etc., are cured by using a little **ZENOLEUM** according to directions. A single quart will rid 100 hens of lice, mites and fleas. You can use **ZENOLEUM** to clean and disinfect the nests, incubators and brooders—to kill vermin and all bugs and germs about the roosts and hen houses; to dip eggs to hatch as well as for incubator moisture. Perfect sanitation **INSURES YOU** greater egg production, greater hatching returns, and more live, healthy chicks. Poultrymen call **ZENOLEUM** the "Health and Profit Maker." Try it yourself.



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MADE IN CANADA.

If you **KEEP HENS**, you should **KEEP ZENOLEUM**. Ask your dealer first, or we will send direct, express prepaid, one tin, enough for 80 gallons of "dip," for \$1.50; 5 gallons, enough for 400 gallons of "dip," freight prepaid, price \$6.25; or a trial tin, enough for 5 gallons of "dip" for 25c.

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 332 SANDWICH ST. EAST, WINDSOR, ONT.

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costs much less than lath and plaster—makes warmer, dryer walls and ceilings—lets you get into the house a month sooner—and will never warp, crack nor fall off. Can be papered, painted, covered with burlap or panelled, as you may choose.

Bishopric Lath Board is made of kiln-dried lath imbedded in a layer of Asphalt-Mastic, surfaced on the other side with Tough Sulphite Fibre Board. The lath gives strength—the Asphalt-Mastic makes it wind, damp and vermin proof—and the paper gives a fine surface.

Write for samples and particulars about Bishopric Products and Permatite Roofing to

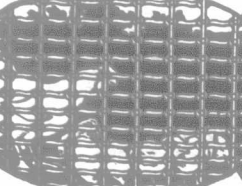
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Strongly made and closely spaced—making it a complete barrier against large animals as well as small poultry. Top and bottom wires No. 9—intermediates No. 12 wire—made by the Open Hearth process which time and other tests have proven to be the best. Send for catalog. Ask about our farm and ornamental fencing. Agencies nearly everywhere. Agents wanted in unassigned territory.

The Benwell-Hexte Wire Fence Company, Ltd.
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Send for Pedigree and Photo.

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HOLSTEIN CATTLE

Canary Mercedes Pieterstje Hartog 7th heads our herd. His dam gave 116 lbs. milk in one day and 6197 in sixty days and made 34.80 lbs. butter in 7 days. There are more cows in our herd giving over one hundred lbs. of milk a day than any other in Ontario. We have both bulls and heifers for sale.

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HOLSTEINS At Hamilton Farms For Sale:—cows and heifers in calf to our great, herd sires Prince Hengerveld of the Pontiacs, son of King of the Pontiacs and King Isabella Walker, son of King Walker. If you want a grandson of King of the Pontiacs, write us. We have some splendid bull calves.

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 Bronte, Ont. High-Class

E. F. OSLER, Prop. Offer for sale some choice young stock of both sexes. **T. A. DAWSON, Mgr**

Sunny Hill Holsteins
 WM. A. RIFE - **HESPELER, ONTARIO**

Bargains in bull calves sired by a grandson of King of the Pontiacs, world's greatest sire. Also one yearling, grandson of Pontiac Korndyke sired by a brother to the \$26,000 bull, sire's dam 32.17 lbs., sold for \$4,100.

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We are busy. Sales were never more abundant. Our cows on yearly test never did better. We have some bulls for sale from record of Performance cows. These bulls are fit for any show ring.

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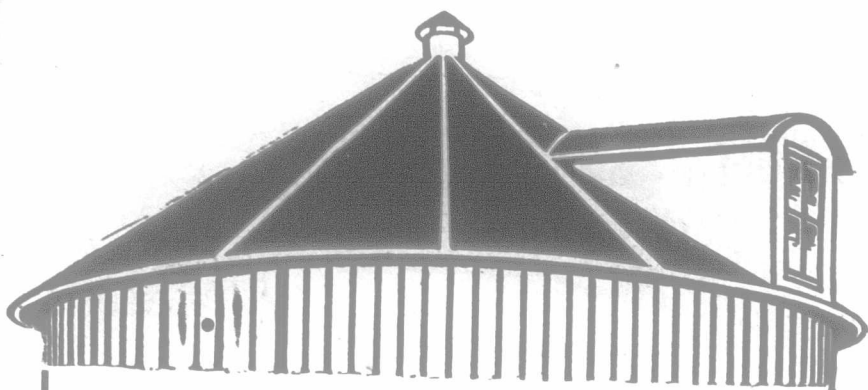
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Whether your hay crop is heavy or light YOU NEED A SILO

If you have a heavy or satisfactory hay crop and buy a silo and make silage, you can sell your hay and feed your cows silage, and you will find that, in the first place, your cost for fodder will be 15 to 20 per cent. less than if you fed your cows hay; and in the second place, your milk flow will be a good deal larger.

If, however, you have a light hay crop but have silage to feed your cows, you won't have to buy any hay or sell some of your cows because you haven't enough feed, because you can feed them silage if you have a silo, and not only will they give a good deal more milk than they would on a hay ration, but you will find that they will come out in good deal better shape in the spring.

Another big advantage in raising and feeding silage is that you can keep more cows on the same number of acres, and derive a larger profit from them.

Furthermore, corn for silage, is the surest and most dependable crop that the farmer can raise. Less affected by weather conditions than any other crop, it doesn't make much difference whether the weather is wet or dry when you come to harvest it.

The Ideal Green Feed Silo

is so well known and so well liked by Canadian dairymen that we do not feel it is necessary to say very much about it.

The fact that it is a product of the De Laval factory is in itself an assurance that the material and workmanship are high grade in every particular, and if you will talk to any one in your neighborhood who has an Ideal Silo, or will look over the construction of some Ideal Silo put up by one of your neighbors, you will surely appreciate the excellence of its construction and the quality of the material from which it is built.

If you are still hesitating whether or not to purchase a silo this year, please keep in mind that if you wait much longer you may have a good deal of trouble in getting delivery in time, because we have had a great rush of silo orders this summer, and those who get their orders in late may have to wait.

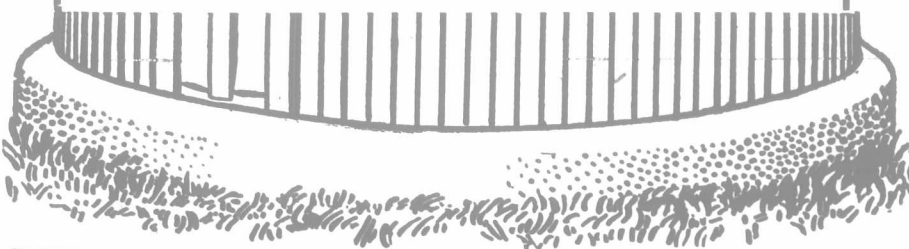
There is probably a De Laval agent in your town who will be glad to quote you prices, terms, etc. If not, an inquiry sent to the nearest De Laval office will receive prompt attention.

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LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA

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Stonehouse Ayrshires

Hector Gordon, Howick, Quebec

Hillhouse Ayrshires

For 50 years I have been breeding the great Fies tribe of Ayrshires, dozens of them have been 60 lb. cows; I have lots of them get 60 lbs. a day on twice-a-day milking. Young bulls 1 to 10 months of age, females all ages. If this kind of production appeals to you write me.

Glenhurst Ayrshires

James Benning, Williamstown, Ont.

Humeshaugh Ayrshires

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Are a combination of show yard and utility type seldom seen in any one herd. A few choice young males and females for sale. Write or phone your wants to Stonehouse before purchasing elsewhere.

Show-ring winners. Dairy test winners. 75 head to select from. Bull calves and females of all ages for sale. Special prices during May on heifers rising two years many of them granddaughters of ex-champion cow, "Primrose of Tanglewyld." Before buying, come and inspect our herd and get prices.

For 50 years I have been breeding the great Fies tribe of Ayrshires, dozens of them have been 60 lb. cows; I have lots of them get 60 lbs. a day on twice-a-day milking. Young bulls 1 to 10 months of age, females all ages. If this kind of production appeals to you write me.

We have several February, March and April, 1915, bull calves, bred from some of our best (imported) and home-bred females, which we offer at good value for quick sale. Select now. Write us.

Questions and Answers. Miscellaneous.

A Self-sucking Cow.

I have a heifer which is causing me some anxiety, as, after having her calf taken away, she commenced sucking herself. She is a splendid milker, and being rather a short build, is quite able to reach her teats. I put a bit in her mouth, but thinking it worried her too much I removed that and fitted her with a band around her having lines attached to a halter, which prevents her reaching her udder. I hope to hear of a more simple remedy.

W. S.

Ans.—Following are recommendations made by subscribers who have had such trouble as described in this query. One writer says to use an old horse-collar on the cow and the habit will soon be forgotten. Another writer asserts that an ordinary bull-ring inserted in the cow's nose will break her of the habit, provided two common harness rings are put on the ring before it is inserted. The secret is by adding more than one loose ring the animal can in no way prevent them from dropping into the mouth when it attempts to suck. Some cows can be cured by wearing a leather halter with sharp nails through the nose piece, the points standing outwards and pricking her flanks when she attempts to suck. Another contrivance often spoken of consists of a leather halter and surcingle and an iron rod running between the cow's fore legs from surcingle to halter-ring. The rod should be about three feet four inches long, with short connecting link of iron at each end, say two inches long, to allow freedom of play.

Cutworms Destroy Oat Field.

1. I have six acres of oats that are being eaten off below the surface of the ground by worms. The worms are quite numerous, and are about two inches long. They are greenish-gray in color. Is there any way of getting rid of them? The oats were sown on two-year-old sod plowed this spring.
2. Would it be safe to break up and sow buckwheat?
3. Will they spread to other fields?
4. Are they the army-worm, or is it too early for them?

J. R. G.

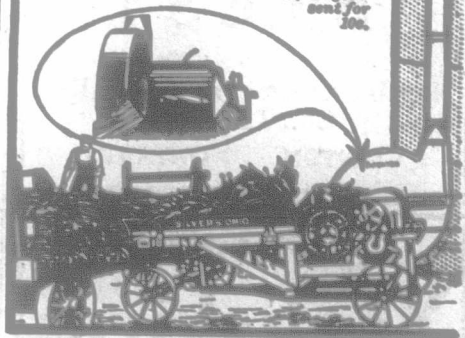
Ans.—1. This pest is undoubtedly one variety of the cutworm. They do their injury in the night by cutting off the young plants as described in this query. Not only do they confine their depredations to sod, but they are very destructive in gardens and in highly-cultivated land. Ways of control would consist of burning piles of refuse or heaps of rubbish that might exist around the place, thus destroying the breeding quarters of the insect. The worm itself can be poisoned with a mixture of one pound of Paris green to 100 pounds of bran. This is best prepared by slightly moistening some of the bran with water containing a little sugar. Paris green is liable to settle to the bottom if one attempts to mix it with dry bran. Sprinkle the Paris green on the bran and stir constantly. If the mixture is too wet when done, a little more bran and a little more Paris green may be added until the mixture will crumble easily and run through the fingers without adhering to them. In a garden plot the mixture should be sprinkled around the plants which are subject to attack. The cutworms will come to the surface at night and devour the poisoned bran. Under field conditions it should be spread broadcast with a shingle or lade of some kind. This is the most practical remedy for cutworms, and it will remain with the farmer whether he considers it profitable to treat in this way or not.

2. The danger from cutworms would probably be over by the time buckwheat germinated if sown about the first of July. A crop of buckwheat appears to be the most profitable crop to grow on land so badly infested. Their work is usually done by the last of June, and the fall brood is not so liable to do injury to crops.
3. It is not likely that they will spread to other fields in sufficient numbers to do material damage.
4. The army worm destroys the foliage of the plant. It seldom works below the ground.

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Patented Better Self-Feed Saves a Man

BIGGEST labor-saver ever applied to silage cutters since the self-feed table was originated by the "Ohio" years ago. Can do away with need for man around the machine helping feed. With famous Bull-Dog Grip feed rolls and table, doubles feeding efficiency. Write at once for folder—other big "Ohio" features—one lever control—direct drive—non-explosive blow—er—friction reverse—shred-her attachment. Blowers in 7 sizes—40 to 300 tons a day—4 to 15 h.p. THE SILVER MFG. CO. 343 Broadway, New York, N.Y. Modern Silage Methods—24 Pages—50c.



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Oxford Down Sheep

"The Champion Oxford Flock of America" Winners at Chicago International, Toronto, London, Winnipeg, Regina, Brandon, Saskatoon, Edmonton, Calgary and Lethbridge Fairs. Present offering—75 ram and ewe lambs, 48 yearling ewes (some fitted for show), also 15 yearling rams which will make excellent flock-heads. Consult us before buying. PETER ARKELL & SONS, Teeswater, Ontario

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Angus, Southdowns, Collies

Special for this month Collie Pups.

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Sheep, Swine and Seed Corn—Young stock of both sexes in Dorset Horn and Shropshire sheep and in swine: Poland Chinas, Duroc Jerseys, Berkshires and Chester Whites. Also Seed Corn, all varieties. Consult me before buying. Cecil Stobbs, Leamington, Ont. Phone 284, M.C.R., P.M. & Electric Ry.

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Two sows seven months old and thirty young pigs about ready to wean. Can supply pairs not akin. All registered.

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SUNNY BRAE YORKSHIRES

Spring pigs from large litters; the long, deep kind with constitution and thrift. Also December sows; real mortgage lifters. Satisfaction guaranteed.

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IMPROVED YORKSHIRES
We are offering a few extra choice Brood Sows in pig, due between May 1st and June 15th. These sows are priced very reasonably, and will sell in short order. We have a few young Boars fit to head any herd. Pomonas Farm, Cobourg, Ont.

TAMWORTHS
25 young sows, bred for spring farrow and a few choice young boars, registered. Write for prices before buying elsewhere.
John W. Todd, R.R. No. 1, Corinth, Ontario

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Berkshires from prize-winning dams, Guelph and Toronto. Herd headed by Mountain Pat, 1st aged class and champion at Toronto in Aug. and Nov. and at London, 1913. Young stock for sale; prices low.
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Sows bred, others ready to breed; boars ready for service; younger stock, both sexes, pairs not akin. All breeding stock imp. or from imp. stock. Prices reasonable.
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tells how to destroy worms in Hogs, Sheep and Horses and is sent free on request.
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Several very choice sows bred for early spring litters; also one boar ready for service.
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Elmfield Yorkshires A few young sows bred, also young boars and sows 2 to 3 1/2 months from choice breeding stock. Can supply pairs not akin.
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Yorkshires—4 imp. Clyde stallions, several imp. Clyde mares and breds, highest quality, choicest breeders, Scotch Shorthorn bulls and heifers, Cotswold ram and ewe lambs, Yorkshires both sexes.
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SUNNYSIDE STOCK FARM
Chester White Swine Champion herd at London Fairs; also Dorset Horn Sheep, young stock of both sexes for sale.
W. E. Wright & Son, Glanworth, Ontario

Big Yields Expected.

A press bulletin issued at Ottawa June 11 by the Census and Statistics office is of special interest as giving the preliminary estimate of the area sown to grain crops in Canada for the present season, and the condition of these crops on May 31, as reported by correspondents. The reports received show that in the Maritime Provinces cold and rainy weather during May delayed farm work, and at the end of the month a good deal of seeding had still to be completed. In Quebec and Ontario cold winds and frost, coming after the exceptionally warm weather of April, retarded growth. In these provinces the frosts injured pastures, but did little damage to grain crops. In the Northwest Provinces growth was checked somewhat by cold and frosty nights, but, on the whole conditions continue to be favorable. In some parts of Manitoba and Saskatchewan the need of rain was being felt. In Alberta and British Columbia the condition of the grain crops was generally favorable.

Wheat is estimated to occupy this year a total area of 12,896,000 acres, which is more by 1,662,500 acres, or 14.8 per cent., than the area sown for 1914, and more by 2,602,100 acres, or 25 per cent., than the area harvested in 1914, the area sown for last year having been reduced by 939,600 acres, the estimated aggregate of total failures through the winter-killing of fall wheat (211,500 acres), and through drouth affecting spring wheat (728,100 acres). Not only is the wheat area this year, under the double stimulus of patriotic impulse and high prices, 25 per cent. in excess of last year's harvested area, but it is also the largest area ever sown to wheat in Canada. As previously reported, the area to be harvested of fall-sown wheat is 1,208,700 acres, the balance of 11,687,300 acres having been sown this spring. Whilst every province shows an increase in the wheat area, it is the three Northwest provinces which preponderate in the national effort to produce more wheat. The total area sown to wheat in these provinces is 11,659,700 acres, an increase over last year's harvested area of 2,324,300 acres, or 25 per cent. In Manitoba the area is 3,166,900 acres, an increase of 21 per cent.; in Saskatchewan it is 6,642,100 acres, an increase of 24 per cent., and in Alberta it is 1,850,700 acres, an increase of 35 per cent. Rather more than half of the total wheat area of Canada is in the single province of Saskatchewan.

Oats are estimated to occupy a total area in Canada of 11,427,000 acres, an increase over last year's harvested area of 1,365,500 acres, or 13 per cent.; barley 1,518,400 acres, as compared with 1,495,600 acres last year; rye 106,400 acres, against 111,280 acres; peas 189,470 acres, compared with 205,950 acres; mixed grains 453,000 acres, against 463,300 acres; hay and clover 7,788,400 acres, against 7,997,000 acres, and alfalfa 94,480 acres, against 90,385 acres.

Measured in percentage of a standard of 100 representing a full crop, all the grain crops were reported as showing a high average, the points being as follows: Fall wheat 94, spring wheat 96, oats and barley 92, rye 91, peas 93, and mixed grains 91. Hay and clover with 86, pastures and alfalfa with 87 are not so good, these crops having suffered from cold and frosty nights during May. Converting the points of standard condition for the principal grain crops into a scale of 100, representing the average of the past five years 1910-1914, the result, assuming conditions between now and harvest to be equal to the average, is an anticipated increase in the yield per acre of 15.6 per cent. for fall wheat, 2.6 per cent. for spring wheat, and 2.5 per cent. for rye. For oats and barley the indications are for yields slightly below the average, or to the extent of 1.5 per cent. for oats and 0.7 per cent. for barley.

"Why doesn't the policeman pay his fare?" inquired the old gentleman on the two-penny train, observing that no money passed between the constable and the conductor.

"Well, you know sir," explained the conductor, "you can't get twopence out of a copper."

Ammunition for every purpose

NO matter what kind of ammunition you may need—.22 cartridges for targets—shot shells for wild fowl, small game and trap, or high velocity cartridges for big game—there is a Dominion metallic or shot shell to meet your requirements.

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(Entirely Made in Canada)

is perfect in every detail of manufacture. Best materials—careful loading—rigid inspection—thorough testing—combine to insure perfect shooting results.

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Get the complete proofs that our plan of building is what you want.

The METAL SHINGLE & SIDING CO., Limited
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LARGE WHITE YORKSHIRES Have a choice lot of sows in pig. Boars ready for service and young pigs of both sexes supplied not akin at reasonable prices. All breeding stock imported or from imported stock from the best British herds. Write or call.
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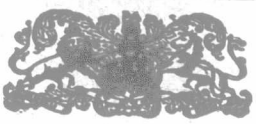
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**Synopsis of Canadian
 North-West Land
 Regulations**

THE sole head of a family, or any male over 18 years old, may homestead a quarter-section of available Dominion land in Manitoba, Saskatchewan or Alberta. Applicant must appear in person at the Dominion Lands Agency or Sub-Agency for the District. Entry by proxy may be made at any Dominion Lands Agency (but not Sub-Agency), on certain conditions.

Duties—Six months residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres, on certain conditions. A habitable house is required except where residence is performed in the vicinity.

In certain districts a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price \$3.00 per acre.

Duties—Six months residence in each of three years after earning homestead patent; also 50 acres extra cultivation. Pre-emption patent may be obtained as soon as homestead patent, on certain conditions.

A settler who has exhausted his homestead right may take a purchased homestead in certain districts. Price \$3.00 per acre. **Duties**—Must reside six months in each of three years, cultivate 80 acres and erect a house worth \$300.

The area of cultivation is subject to reduction in case of rough, scrubby or stony land. Live stock may be substituted for cultivation under certain conditions.

W. W. CORY, C.M.G.,

Deputy of the Minister of the Interior

N.B.—Unauthorized publication of this advertisement will not be paid for.—64388.



MAIL CONTRACT

SEALED TENDERS, addressed to the Postmaster-General, will be received at Ottawa until noon on Friday, the 9th day of July, 1915, for the conveyance of His Majesty's Mails on a proposed contract for four years, six times per week, over London (Hyde Park Corners) Rural Route, from the Postmaster-General's Pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen and blank forms of tender may be obtained at the Post Offices of London, London West and Hyde Park Corner, and at the office of the Post Office Inspector, London.

Post Office Department, Canada, Mail Service Branch, Ottawa, 28th May, 1915.

G. C. ANDERSON,
 Superintendent.

WANTED

**1,000 Chauffeurs
 By the British Government**

Let us qualify you either to go to the front or take the place here of others who have gone—good chauffeurs are scarce. All makes of Gasoline Motor Engines, repairing, etc., thoroughly studied. Our diploma qualifies you for Government chauffeurs' license examination. Write to-day for particulars and free booklet. Classes now starting.

ED. W. CAMERON, Principal
 Toronto Automobile School
 86 Wellington St. West, Toronto, Ont.

Please mention "The Farmer's Advocate."

The Key to Success.

Editor "The Farmer's Advocate":
 There are many and various keys which will open the door to success, but there is one which I believe to be a master key.

As I was reading my "Farmer's Advocate" this week, my attention was drawn to the truth of the motto which is printed below the heading on the front page—"Persevere and Succeed"—and the thought struck me that here was the master key for any ambitious farmer.—**PERSEVERE**,—and if he perseveres in the right way he is bound to succeed.

Then the thought that came to me was this: How many farmers there are who take up "The Farmer's Advocate," and time and again pass over those two words on the front page, small words, but how large they are in significance.

There they stand on the front page, staring at us week after week, and how many of us have noticed them, or if we have, how many have stopped to realize their truth?

If only every one of us would take that word "Persevere" to heart, there would not be so many farmers, who, at the end of life, would have to look back and say, as Robert Service has so aptly put it in one of his poems:

"My life was a problem in ciphers, a weary and profitless sum,
 Shiftless and stupid I worked it, dazed by negation and doubt,
 Ciphers the total confronts me; O, Death, with Thy moistened thumb,
 Stoop like a petulant schoolboy and wipe me forever out."

There are many, who, as they look back, find they have made a failure of life just because they have let things slip and slide and have taken life just as they found it, for a farmer reaps what he sows, not only as regards grain, but also in personal effort. There are a few, however, who come to the end and find themselves just where they were when they started, although they have put their whole heart into their work—farmers who have persevered, but, owing to certain difficulties or unforeseen disasters (and the farm holds these in store), have been unable to more than hold their own, and we feel compelled to take our hats off to such men. But if you take farming in general you will always find that the man who succeeds is the man who has persevered not only in working his land and trying to improve it, but who has also persevered in acquiring newer, better methods, and in observing how he may improve his farm.

As an agricultural magazine, "The Farmer's Advocate" has lived up to its motto. Now it is up to the farmer, who wishes to make good, to live up to the same motto, and since "The Advocate" invites suggestions, I would say that those two words—"Persevere and Succeed"—should not be hidden away there under the title in small print, but should be given a place of prominence where they might stimulate from time to time the farmer who is tempted to give up because he is having such a hard time to make ends meet. Let him persevere in every sense of the word, and he will find that success will reward his efforts.

A. J. READ.

Elgin Co., Ont.

[Note.—All the good things are not set up in bold type.—Editor.]

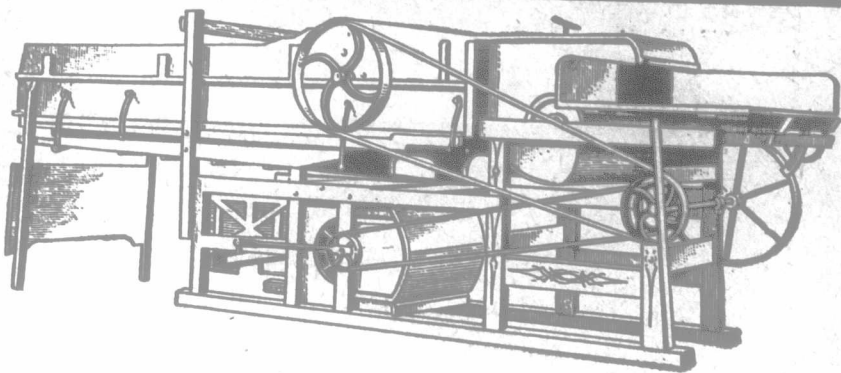
Gossip.

HIGH PRICES FOR HEREFORDS.

H. Dudley Smith, Secretary of the Hereford Association of Canada, sends a short account of two very successful Hereford sales recently held in the United States. The herd of C. A. Tow, of Iowa, averaged \$487 each, one heifer bringing \$2,000, and none of the rest going higher than \$1,000, but several selling upwards of \$700 each.

The other sale was that of W. T. McCray, which averaged, for 75 head, \$765, making a grand total of \$55,990. Fourteen sons of the great bull, Perfection Fairfax, averaged \$1,615 each, showing the high esteem in which this bull is held as a breeder, and the demand for good bulls of the breed.

OWN YOUR OWN THRESHER!



The "PAGE" Saves Its Cost
 Pays YOU Handsome Profits

Get your grain threshed when it's ready—when it's needed—or when you have time to spare—with the

PAGE THRESHER

It saves its small cost. Enables you to do custom threshing. Simple, staunch, and lasts a lifetime. Uses least power. Gets all the grain from your crops.

Buy DIRECT—Freight PAID—SAVE HALF
 Buy DIRECT FROM PAGE—Freight Paid. Get the highest-grade, most efficient Thresher at the LOWEST price.

Write for COMPLETE CATALOGUE of PAGE Threshers, Engines, Grinders and other Farm Equipment at LOWEST COST.

PAGE Dept. 1, L
 WIRE FENCE
 CO., LIMITED TORONTO
 MONTREAL WINNIPEG ST. JOHN

Live Broilers

We are open for shipments of live spring broilers and for live poultry from now on. Highest market prices paid, according to quality. Write us for quotations. Prompt returns, and crates promptly returned.

HENRY GATEHOUSE
 Wholesale and Retail Poultry, Game,
 Fish, Eggs and Vegetables
 348 Dorchester St. W., MONTREAL

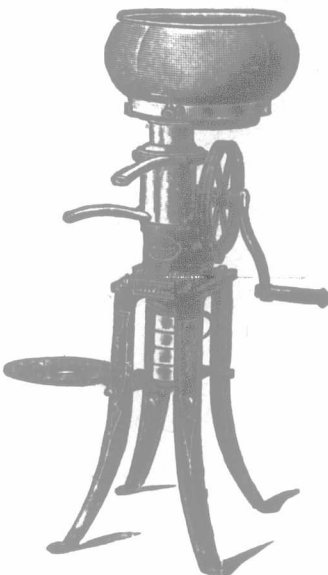
CREAM

Where are you shipping now?
 And what are you getting for your cream?

We want more individual shippers and more men to gather cream for us.
 Write for our proposition.

Silverwoods Limited
 LONDON, ONTARIO

**THE FAMOUS
 Anker-Holth Cream Separator**



Ten Reasons why you should own an Anker-Holth Cream Separator:

- 1—Because the bowl is absolutely self-balancing.
- 2—Because all bearings are self-oiling.
- 3—Because the discs do not have to be put in numerical order.
- 4—Because it is the easiest to clean.
- 5—Because a woman or child can run it.
- 6—Because all parts of the bowl are interchangeable.
- 7—Because it contains a less number of different parts than any other.
- 8—Because it can skim colder milk than any other.
- 9—Because it is self-draining. No danger of freezing.
- 10—Because they are giving universal satisfaction throughout the dairy world. Try one and be convinced as to their superiority. Write us to-day.

SALES AGENTS:
Perkins Windmill & Engine Co.
 90 King St., LONDON, ONT.
 Telephone 1506

BE SURE AND ASK FOR THE



Line of WASHERS, CHURNS, BUTTER WORKERS, FOOD CUTTERS, GAS ENGINES, etc. Write for Catalogue.
 Maxwells Limited, St. Mary's, Ontario

LOUDEN

Barn Equipments

SAVE Time—Save Labor—Save Expense
 Our new catalogue describes every kind of device for money-making and labor-saving on farms. Write to:

LOUDEN MACHINERY CO.
 Dept. 1, Guelph, Ont.

YOU CAN WIN, IF YOU WILL!

ONE OR MORE OF THE VALUABLE PREMIUMS OFFERED ON THIS PAGE

Every one of them is reliable. We send out nothing we cannot recommend. Just a word from you at a chance meeting of a neighbor may be all that is necessary to procure one of these premiums, any one of which would be an excellent reward.

No farm home complete without one of our Magnificent

21 - Piece China Tea Sets

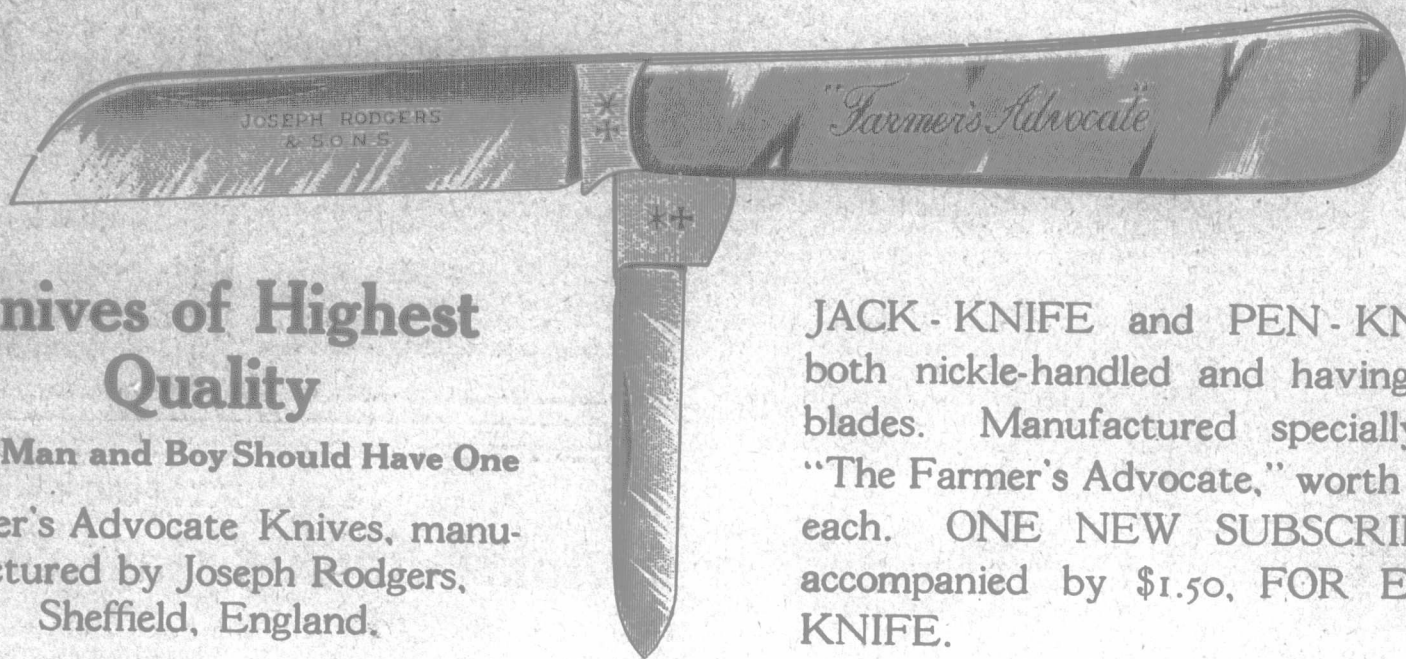
of extra fine quality China, beautifully decorated, an ornament to any table. This set may be obtained by sending in THREE NEW YEARLY SUBSCRIBERS, together with \$4.50.

Complete Kitchen Equipment

A UTENSIL FOR EVERY PURPOSE. Pan Cake Turner, Basting Spoon, Butcher Knife and Emery Steel, Serrated Edge Bread Knife and Paring Knife made of the best grade of crucible steel, with Rubberoid finish, hardwood handles with nickle plated ferule. All six articles for ONE NEW SUBSCRIBER accompanied by \$1.50.

Sanitary Kitchen Set

Best quality steel, five pieces consisting of Roasting Fork, Paring Knife, Carving Knife, Serrated Bread Knife and Meat Saw with rack which can be hung on the wall. ONE NEW SUBSCRIBER accompanied by \$1.50.



Knives of Highest Quality

Every Man and Boy Should Have One Farmer's Advocate Knives, manufactured by Joseph Rodgers, Sheffield, England.

JACK-KNIFE and PEN-KNIFE, both nickle-handled and having two blades. Manufactured specially for "The Farmer's Advocate," worth \$1.00 each. ONE NEW SUBSCRIBER, accompanied by \$1.50, FOR EACH KNIFE.

Bibles Old and New Testaments in beautifully clear, legible type; references, concordance to both Old and New Testaments. Index to names of persons, places and subjects occurring in the Scriptures. Twelve full-page maps; all excellent in type and outline. This book is of most convenient size, being 7x10 inches when open; weight, 23 ounces; and would sell at regular retail price from \$1.00 to \$1.50. ONE NEW SUBSCRIBER. Or size 9x13 inches open, with centre reference and chromatic index for ONE NEW SUBSCRIBER, accompanied by \$1.50.

There are many good farmers in every district who are not yet subscribers to the Farmer's Advocate and Home Magazine, the best paper in Canada for the farmer and his family. It should be an easy matter for you to secure subscribers and thus earn some of these valuable premiums. We will supply you with sample copies free. Start out to-day.

Any of the above premiums will be sold for cash as follows:

China Tea Sets.....	\$2.50
Bibles.....	1.00
Knives.....	1.00
Complete Kitchen Equipment.....	.75
Sanitary Kitchen Set.....	.75

The Farmer's Advocate and Home Magazine

London, Ontario